VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

BOARD OF RETIREMENT

DISABILITY MEETING

JUNE 4, 2018

AGENDA

PLACE: Ventura County Employees' Retirement Association
Second Floor Boardroom
1190 South Victoria Avenue
Ventura, CA 93003

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:

		Master Page No.
I.	**CALL TO ORDER**	
II.	**APPROVAL OF AGENDA**	1 – 3
III.	**APPROVAL OF MINUTES**	
	A. Business Meeting of May 21, 2018.	4 – 9
IV.	**RECEIVE AND FILE PENDING DISABILITY APPLICATION STATUS REPORT**	10 – 42
V.	**APPLICATIONS FOR DISABILITY RETIREMENT**	
	A. Application for Service-Connected Disability Retirement - Remijo, Peter; Case No. 15-026.	43 – 59
	1. Proposed Findings of Fact and Recommended Decision to deny the Application for Service-Connected Disability, submitted by Hearing Officer Humberto Flores, dated February 15, 2018.	
	2. Hearing Notice, dated May 10, 2018.	
	B. Application for Service-Connected Disability Retirement – Bittmann, Janeen R.; Case No. 17-014.	60 – 63

V. APPLICATIONS FOR DISABILITY RETIREMENT (continued)

1. Risk Management's Request for an Extension - Amended to submit Medical Analysis through November 2018.

2. Hearing Notice, dated May 25, 2018.

VI. ACTUARIAL INFORMATION

A Actuarial Experience Study and Review of Economic and Demographic Assumptions, Paul Angelo, FSA and John Monroe, ASA of Segal Consulting.

1. Analysis of Actuarial Experience During the Period of July 1, 2014 through June 30, 2017. 64 – 132

B. Segal Contract Renewal for Actuarial Services, and Proposed Schedule of Fixed Fees and Hourly Billing Rates.

1. Staff Letter. 133

2. Proposed Schedule of Fixed Fees and Hourly Billing Rates. 134 – 136

3. Actuarial Services Agreement between VCERA and The Segal Company (2003). 137 – 177

VII. OLD BUSINESS

A. None.

VIII. NEW BUSINESS

A. Review and Adoption of Proposed Fiscal Year 2018/19 Budget.
RECOMMENDED ACTION: Approve.

1. Staff Letter. 178 – 182

2. Proposed Budget for FY 2018/19. 183 – 202

B. Notification of County Approval of General Salary Increase and Flexible Benefits Program Contribution Increase, and Recommendation Corresponding Changes for Employees Covered Under VCERA Management Employees Resolution.
Recommended Action: Approve.

1. Staff Letter. 203

2. Letter from Assistant County Executive Officer - Human Resources Director, Shawn Atin and County Executive Officer Michael Powers. 204 – 206

IX. INFORMATIONAL

X. PUBLIC COMMENT

XI. STAFF COMMENT

XII. BOARD MEMBER COMMENT

XIII. ADJOURNMENT

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

BOARD OF RETIREMENT

BUSINESS MEETING

MAY 21, 2018

MINUTES

DIRECTORS PRESENT:
William W. Wilson, Vice Chair, Public Member
Steven Hintz, Treasurer-Tax Collector
Mike Sedell, Public Member
Robert Bianchi, Public Member
Craig Winter, General Employee Member
Maeve Fox, General Employee Member
Arthur E. Goulet, Retiree Member
Will Hoag, Alternate Retiree Member
Chris Johnston, Safety Employee Member
Ed McCombs, Alternate Public Member

DIRECTORS ABSENT:
Peter Foy, Public Member

STAFF PRESENT:
Linda Webb, Retirement Administrator
Lori Nemiroff, County Counsel
Henry Solis, Chief Investment Officer
Dan Gallagher, Chief Investment Officer
Karen Scanlan, Accounting Manager I
Stephanie Berkley, Retirement Benefits Specialist
Chris Ayala, Program Assistant

PLACE:
Ventura County Employees' Retirement Association
Second Floor Boardroom
1190 South Victoria Avenue
Ventura, CA 93003

TIME: 9:00 a.m.

ITEM:

I. CALL TO ORDER

Vice-Chair Wilson called the Business Meeting of May 21, 2018, to order at 9:00 a.m.

II. APPROVAL OF AGENDA

Trustee Goulet requested that the Board amend the agenda to include adjourning the meeting in memory of former Board of Retirement Trustee, Joseph Henderson.

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

MOTION: Approve as Amended.

Moved by Goulet, seconded by Bianchi.

Vote: Motion carried
Yes: Bianchi, Fox, Goulet, Hintz, Johnston, McCombs, Sedell, Wilson, Winter
No: -
Absent: Foy
Abstain:

III. APPROVAL OF MINUTES

A. Disability Meeting Minutes of May 7, 2018.

MOTION: Approve.

Moved by Bianchi, seconded by McCombs.

Vote: Motion carried
Yes: Bianchi, Fox, Goulet, Hintz, Johnston, McCombs, Wilson, Winter
No: -
Absent: Foy
Abstain: Sedell

Trustee Sedell abstained from the vote as he had been absent from the meeting of May 7, 2018.

IV. CONSENT AGENDA

A. Approve Regular and Deferred Retirements and Survivors Continuances for the Month of April 2018.

B. Receive and File Report of Checks Disbursed in April 2018.

C. Receive and File Budget Summary for FY 2016-17 Month Ending April 30, 2018.

D. Receive and File Statement of Fiduciary Net Position, Statement of Changes in Fiduciary Net Position, Schedule of Investments, Cash, and Cash Equivalents, and Schedule of Investment Management Fees for the Period Ending March 31, 2018.

E. Receive and File Statement of Fiduciary Net Position, Statement of Changes in Fiduciary Net Position, Schedule of Investments, Cash, and Cash Equivalents, and Schedule of Investment Management Fees for the Period Ending April 30, 2018.

Trustee Goulet asked staff for more information about a payment that was made to Vitech in April.

Ms. Webb replied that it was regarding an annual upgrade fee for the V3 system, and that she would be happy to provide details via email or at the next meeting.

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

MOTION: Receive and File.

Moved by Hintz, seconded by Bianchi.

Vote: Motion carried
Yes: Bianchi, Fox, Goulet, Hintz, Johnston, McCombs, Sedell, Wilson, Winter
No: -
Absent: Foy
Abstain:

V. INVESTMENT MANAGER PRESENTATIONS

A. Receive Annual Investment Presentation, Tortoise Capital Advisors, Andrew Goldsmith and Gregory Murphy.

Andrew Goldsmith and Gregory Murphy were present on behalf of Tortoise Capital Advisors to provide an organizational and investment performance update.

B. Receive Annual Investment Presentation, Bridgewater, Pam Tholen and Patrick Dimick.

Pam Tholen and Patrick Dimick were present on behalf of Bridgewater to provide an organizational and investment performance update.

After hearing this presentation, the Board took a break at 9:55 a.m.

The Board returned from break at 10:05 a.m.

VI. INVESTMENT INFORMATION

A. NEPC – Allan Martin
VCERA – Dan Gallagher, Chief Investment Officer

1. April 2018 Monthly Preliminary Performance Report.
RECOMMENDED ACTION: Receive and file.

MOTION: Receive and File the April 2018 Monthly Preliminary Performance Report.

Moved by Bianchi, seconded by Johnston.

Vote: Motion carried
Yes: Bianchi, Fox, Goulet, Hintz, Johnston, McCombs, Sedell, Wilson, Winter
No: -
Absent: Foy
Abstain:

2. Quarterly Investment Performance Report for Period Ending March 31, 2018.
RECOMMENDED ACTION: Receive and file.

MOTION: Receive and File the Quarterly Investment Performance Report for Period Ending March 31, 2018.

Moved by Bianchi, seconded by McCombs.

Vote: Motion carried
Yes: Bianchi, Fox, Goulet, Hintz, Johnston, McCombs, Sedell, Wilson, Winter
No: -
Absent: Foy
Abstain:

B. Recommendation to Approve Investment: $35 Million Investment in HarbourVest Partners' Co-Investment Fund V.
RECOMMENDED ACTION: Approve.

1. Staff Letter by C.I.O., Dan Gallagher.

2. Memorandum from NEPC.

3. HarbourVest Co-Investment Presentation.

Mr. Gallagher said that he and NEPC are recommending a $35 Million investment in Harbourvest Partners' Co-Investment Fund V. He noted that co-investments are invested faster than primary investments, and fees are lower than those in primary or secondary investments.

He stated that NEPC had completed a detailed due diligence review and had provided a report on this proposed investment opportunity. He also noted that Alex Rogers and Mark Radville from Harbourvest were available to make a brief presentation and to answer any questions the Board may have.

After discussion by the Board, staff, and consultant, the following motion was made:

MOTION: Approve $35 Million Investment in HarbourVest Partners' Co-Investment Fund V.

Moved by Goulet, seconded by Bianchi.

Vote: Motion carried
Yes: Bianchi, Fox, Goulet, Hintz, Johnston, McCombs, Sedell, Wilson, Winter

No: -
Absent: Foy
Abstain:

C. Recommendation to Approve Proposed Asset Allocation.
RECOMMENDED ACTION: Approve.

1. Staff Letter by C.I.O., Dan Gallagher.

2. NEPC Asset Allocation Report.

Mr. Gallagher noted that at the Board meeting on April 16th, he and Mr. Martin had presented to the Board several proposed asset allocation mixes for Board consideration and discussion, and based on the feedback from that meeting, they were now presenting a proposed asset allocation for recommended Board adoption.

He continued that subject to Board approval and adoption, he and Mr. Martin would bring back a proposed implementation plan to the Board at the June business meeting.

Mr. Martin then presented the NEPC Asset Allocation Report to the Board.

After discussion by the Board, staff, and consultant, the following motion was made:

MOTION: Approve.

Moved by Sedell, seconded by Bianchi.

Vote: Motion carried
Yes: Bianchi, Fox, Goulet, Hintz, Johnston, McCombs, Sedell, Wilson, Winter
No: -
Absent: Foy
Abstain:

VII. OLD BUSINESS

A. VCERA Office Location Update.

Ms. Webb provided an update to the Board on VCERA's Real Estate Committee's office location search, and a recent property tour. She said the committee would report back when it was prepared to make a presentation.

VIII. NEW BUSINESS

A. Request from Trustee Bianchi to Attend the Wharton Alternative Investment Strategies Program in San Francisco, CA, July 30 – August 1, 2018.
Recommended Action: Approve.

1. Staff Letter.

2. Wharton Investment Programs Brochure.

MOTION: Approve.

Moved by Goulet, seconded by Johnston.

Vote: Motion carried
Yes: Bianchi, Fox, Goulet, Hintz, Johnston, McCombs, Sedell, Wilson, Winter
No: -
Absent: Foy
Abstain:

IX. INFORMATIONAL

A. CALAPRS Trustees' Roundtable.

X. PUBLIC COMMENT

None.

XI. STAFF COMMENT

Ms. Webb remarked on Trustee Goulet's earlier question related to the annual Vitech upgrade fee, which was paid in April. She said it included software patches and updates, and though staff had a few remaining questions regarding helpdesk coverage and long-term support, she had approved the payment to avoid missing vital patches or updates while the conversation with Vitech continued. She offered to send additional information to Trustee Goulet after the meeting.

Ms. Webb also said that staff was expecting a preliminary report for the 3-year experience study from Segal Consulting, which would incorporate the asset allocation that was approved as an earlier agenda item.

XII. BOARD MEMBER COMMENT

None.

XIII. ADJOURNMENT

The Vice-Chairman adjourned the meeting at 11:16 a.m., in memory of former Trustee Joseph Henderson.

Respectfully submitted,

Linda Webb

LINDA WEBB, Retirement Administrator

Approved,

WILLIAM WILSON, Vice-Chairman

Segal Consulting

Ventura County Employees' Retirement Association

ACTUARIAL EXPERIENCE STUDY

Analysis of Actuarial Experience
During the Period
July 1, 2014 through June 30, 2017

Segal Consulting

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

May 24, 2018

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

Re: Review of Actuarial Assumptions for the June 30, 2018 Actuarial Valuation

Dear Members of the Board:

We are pleased to submit this report of our review of the actuarial experience for the Ventura County Employees' Retirement Association. This study utilizes the census data for the period July 1, 2014 to June 30, 2017 and provides the proposed actuarial assumptions, both economic and demographic, to be used in the June 30, 2018 valuation.

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.

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

Sincerely,

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

John W. Monroe, ASA, MAAA, EA
Vice President and Actuary

AW/bqb

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Actuarial Experience Study

Analysis of Actuarial Experience
During the Period July 1, 2014 through June 30, 2017

I. Introduction, Summary, and Recommendations

To project the cost and liabilities of the pension plan, assumptions are made about all future events that could affect the amount and timing of the benefits to be paid and the assets to be accumulated. Each year actual experience is compared against the projected experience, and to the extent there are differences, the future contribution requirement is adjusted.

If assumptions are modified, contribution requirements are adjusted to take into account a change in the projected experience in all future years. There is a great difference in both philosophy and cost impact between recognizing the actuarial deviations as they occur annually and changing the actuarial assumptions. Taking into account one year's gains or losses without making a change in the assumptions means that year's experience is treated as temporary and that, over the long run, experience will return to what was originally assumed. Changing assumptions reflects a basic change in thinking about the future, and it has a much greater effect on the current contribution requirements than recognizing gains or losses as they occur.

The use of realistic actuarial assumptions is important in maintaining adequate funding, while paying the promised benefit amounts to participants already retired and to those near retirement. The actuarial assumptions used do not determine the "actual cost" of the plan. The actual cost is determined solely by the benefits and administrative expenses paid out, offset by investment income received. However, it is desirable to estimate as closely as possible what the actual cost will be so as to permit an orderly method for setting aside contributions today to provide benefits in the future, and to maintain equity among generations of participants and taxpayers.

This study was undertaken in order to review the economic and demographic actuarial assumptions and to compare the actual experience with that expected under the current assumptions during the three-year experience period from July 1, 2014 through June 30, 2017. The study was performed in accordance with Actuarial Standard of Practice (ASOP) No. 27 "Selection of Economic Assumptions for Measuring Pension Obligations" and ASOP No. 35 "Selection of Demographic and Other Non-Economic Assumptions for Measuring Pension Obligations." These Standards of Practice put forth guidelines for the selection of the various actuarial assumptions utilized in a pension plan actuarial valuation. Based on the study's results and expected future experience, we are recommending various changes in the current actuarial assumptions.

We are recommending changes in the assumptions for inflation, investment return, promotional and merit salary increases, retirement from active employment, spouse age differences, retirement age for deferred vested members, percent of members assumed to go on to work for a reciprocal system, reciprocal salary increases, pre-retirement mortality, healthy life post-retirement mortality, disabled life post-retirement mortality, termination (refund and deferred vested retirement), disability (service and non-service connected) and in-service redemptions.

Our recommendations for the major actuarial assumption categories are as follows:

Pg #	Actuarial Assumption Categories	Recommendation
8	**Inflation:** Future increases in the Consumer Price Index (CPI) which drives investment returns and active member salary increases, as well as cost-of-living adjustments (COLAs) for retirees.	Reduce the inflation assumption from 3.00% to 2.75% per annum as discussed in Section (III)(A).
10	**Investment Return:** The estimated average net rate of return on current and future assets of the Association as of the valuation date. This rate is used to discount liabilities.	Reduce the investment return assumption from 7.50% to 7.25% per annum as discussed in Section (III)(B).
16	**Individual Salary Increases:** Increases in the salary of a member between the date of the valuation to the date of separation from active service. This assumption has three components: • Inflationary salary increases • Real "across the board" salary increases • Promotional and merit increases	Reduce the current inflationary salary increase assumption from 3.00% to 2.75% and maintain the current real "across the board" salary increase assumption at 0.50%. This means that the combined inflationary and real "across the board" salary increases will decrease from 3.50% to 3.25%. Change the promotional and merit increases to those developed in Section III(C). Future promotional and merit salary increases are higher under the proposed assumptions. The recommended salary increase assumptions anticipate slightly higher salary increases overall for General members and slightly lower salary increases overall for Safety members.
22	**Retirement Rates:** The probability of retirement at each age at which participants are eligible to retire. **Other Retirement Related Assumptions including:** • Percent married and spousal age differences for members not yet retired • Retirement age for inactive vested members • Future reciprocal members and reciprocal salary increases	For active members, adjust the current retirement rates to those developed in Section (IV)(A). For non-PEPRA members, we are proposing different sets of age based retirement assumptions for those with less than 30 years of service and to those with 30 or more years of service. For both non-PEPRA General and Safety members, reduce retirement assumptions for those with less than 30 years of service and increase retirement assumptions for those with 30 or more years of service. For active and inactive vested members, maintain the percent married at retirement assumption at 70% for males and 55% for females. Reduce the spouse age difference assumption from three years to two years for female members (female members are assumed to be two years younger than their male spouse beneficiaries). For inactive vested members, maintain the assumed retirement age at 59 for General members and reduce to age 53 for Safety members. Reduce the current proportion of future terminated members expected to be covered by a reciprocal system from 50% to 45% for General members and maintain the assumption at 60% for Safety members. In addition, reduce the reciprocal salary increase assumptions to 3.75% for General members and 3.95% for Safety members.

Pg #	Actuarial Assumption Categories	Recommendation
32 38	**Mortality Rates:** The probability of dying at each age. Mortality rates are used to project life expectancies.	For healthy General retirees and all beneficiaries, change from the current 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 to the Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table times 90% for males and 100% for females, projected generationally with the two-dimensional mortality improvement scale MP-2017. For healthy Safety retirees, change from the current RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2035 set back three years to the Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table times 75% for males and 85% for females, projected generationally with the two-dimensional mortality improvement scale MP-2017. For disabled General retirees, change from the current RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2035 set forward six years for males and eight years for females to the Headcount-Weighted RP-2014 Disabled Retiree Mortality Table times 85% for males and 100% for females, projected generationally with the two-dimensional mortality improvement scale MP-2017. For disabled Safety retirees, change from the current RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2035 set forward two years to the Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table times 100% for males and 115% for females, projected generationally with the two-dimensional mortality improvement scale MP-2017. For pre-retirement mortality, change from the current post-retirement mortality tables to the Headcount-Weighted RP-2014 Employee Mortality Table times 80%, projected generationally with the two-dimensional scale MP-2017. For determining member contribution rates, reserves and optional forms, change the mortality rates to those developed in Section (IV)(B). The recommended mortality assumptions will anticipate longer life expectancies for both pre-retirement and healthy post-retirement. For disableds, shorter life expectancies are anticipated.
41	**Termination Rates:** The probability of leaving employment at each age and receiving either a refund of contributions or a deferred vested retirement benefit.	Adjust the current termination rates to those developed in Section (IV)(D). The recommended assumptions will anticipate slightly more terminations for General and Safety members.
46	**Disability Incidence Rates:** The probability of becoming disabled at each age.	Adjust the current disability rates to those developed in Section (IV)(E). The recommended assumptions will anticipate fewer disability retirements for General members and Safety members.
49	**In Service Redemptions:** Additional pay elements that are expected to be received during the member's final average earnings period.	Decrease the current in-service redemption assumptions for non-PEPRA Safety and maintain the current assumption for non-PEPRA General, as developed in Section IV(F).
50	**Average Entry Age (for member contributions):** Used for determining contribution rates for non-PEPRA members hired after November 1974 who are not contributing fifty percent of Normal Cost.	Maintain the current average entry age assumption for General and Safety members as developed in Section IV(G).

We are also proposing a change to the methodology for determining a member's entry age for use in applying the actuarial cost method. Currently, the entry age for allocating Normal Cost is the member's age at hire. We propose setting this entry age as the member's age on the valuation date minus years of service. We believe that this proposed change will better allocate costs over the years in which the member earned service credit. This proposed change does not impact the average entry ages used by VCERA to determine member contribution rates for non-PEPRA active members that are not contributing fifty percent of the Normal Cost.

We have estimated the impact of the proposed assumption changes as if they were applied to the June 30, 2017 actuarial valuation. These estimated impacts reflect the 50/50 sharing of Normal Cost for non-PEPRA tiers. In particular, if all of the proposed economic assumptions changes (as recommended in Section III of this report) were implemented, the average employer rate would have increased by 1.04% of payroll and the average member rate would have increased by 0.38% of payroll. Of the various economic assumption changes, the most significant cost impact is from the investment return assumption change.

Furthermore, if all of the proposed demographic assumption changes (as recommended in Section IV of this report) were implemented, the average employer rate would have increased by 0.50% of payroll. The average member rate would have decreased by 0.06% of payroll. Of the various demographic assumption changes, the most significant cost impact are from the mortality assumption change for General membership and retirement assumption change for Safety membership. The impact of the proposed change in methodology for setting entry age described above has been included with the impact of the demographic assumptions.

Therefore, the estimated cost impact of all proposed assumption changes (both economic and demographic) is 1.54% of payroll for the average employer rate, where the Normal Cost rate increased by 0.48% and the UAAL amortization rate increased by 1.06%. The average member rate would have increased by 0.32% of payroll.

Section II provides some background on the basic principles and methodology used for the experience study and for the review of the economic and demographic actuarial assumptions. A detailed discussion of each assumption and reasons for the proposed changes are found in Section III for the economic assumptions and Section IV for the demographic assumptions. The cost impact of the proposed changes is detailed in Section V.

II. Background and Methodology

In this report, we analyzed both economic and demographic ("non-economic") assumptions. The primary economic assumptions reviewed are inflation, investment return, and salary increases. Demographic assumptions include the probabilities of certain events occurring in the population of members, referred to as "decrements," e.g., termination from service, disability retirement, service retirement, and death before and after retirement. In addition to decrements, other demographic assumptions reviewed in this study include the percentage of members with an eligible spouse or domestic partner, spousal age difference, in-service redemptions, percent of members assumed to go on to work for a reciprocal system, reciprocal salary increases and average entry age for member contributions.

Economic Assumptions

Economic assumptions consist of:

- **Inflation:** Increases in the price of goods and services. The inflation assumption reflects the basic return that investors expect from securities markets. It also reflects the expected basic salary increase for active employees and drives increases in the allowances of retired members.

- **Investment Return:** Expected long-term rate of return on the Association's investments after administration and investment expenses. This assumption has a significant impact on contribution rates.

- **Salary Increases:** In addition to inflationary increases, it is assumed that salaries will also grow by "across the board" real pay increases in excess of price inflation. It is also assumed that employees will receive raises above these average increases as they advance in their careers. These are commonly referred to as promotional and merit increases. Payments to amortize any Unfunded Actuarial Accrued Liability (UAAL) are assumed to increase each year by the price inflation rate plus any "across the board" real pay increases that are assumed.

The setting of these economic assumptions is described in Section III.

Demographic Assumptions

In order to determine the probability of an event occurring, we examine the "decrements" and "exposures" of that event. For example, taking termination from service, we compare the number of employees who actually terminate in a certain age and/or service category (i.e., the number of "decrements") with those "who could have terminated" (i.e., the number of "exposures"). For example, if there were 500 active employees in the 20-24 age group at the beginning of the year and 50 of them terminate during the year, we would say the probability of termination in that age group is 50 ÷ 500 or 10%.

The reliability of the resulting probability is highly dependent on both the number of decrements and the number of exposures. For example, if there are only a few people in a high age category at the beginning of the year (number of exposures), we would not lend as much credibility to the probability of termination developed for that age category, especially if it is out of line with the pattern shown for the other age groups. Similarly, if we are considering the death decrement, there may be a large number of exposures in, say, the age 20-24 category, but very few decrements (actual deaths); therefore, we would not be able to rely heavily on the probability developed for that category.

One reason we use several years of experience for such a study is to have more exposures and decrements, and therefore more statistical reliability. Another reason for using several years of data is to smooth out fluctuations that may occur from one year to the next. However, we also calculate the rates on a year-to-year basis to check for any trend that may be developing in the later years.

III. Economic Assumptions

A. Inflation

Unless an investment grows at least as fast as prices increase, investors will experience a reduction in the inflation-adjusted value of their investment. There may be times when "riskless" investments return more or less than inflation, but over the long term, investment market forces will generally require an issuer of fixed income securities to maintain a minimum return which protects investors from inflation.

The inflation assumption is long term in nature, so it is set using primarily historical information. Following is an analysis of 15 and 30 year moving averages of historical inflation rates:

HISTORICAL CONSUMER PRICE INDEX – 1930 TO 2017[1]
(U.S. City Average - All Urban Consumers)

	25th Percentile	Median	75th Percentile
15-year moving averages	2.4%	3.4%	4.5%
30-year moving averages	3.0%	3.8%	4.8%

The average inflation rates have continued to decline gradually over the last several years due to the relatively low inflationary period over the past two decades. Also, the later of the 15-year averages during the period are lower as they do not include the high inflation years of the mid-1970s and early 1980s.

Based on information found in the Public Plans Data website, which is produced in partnership with the National Association of State Retirement Administrators (NASRA), the median inflation assumption used by 168 large public retirement funds[2] in their 2016 fiscal year valuations was 3.00%. In California, CalPERS, CalSTRS, Contra Costa County, Los Angeles County, Orange County and two other 1937 Act CERL systems use an inflation assumption of 2.75% while two other 1937 Act CERL systems use an inflation assumption of 2.50% and twelve other 1937 Act CERL systems use an inflation assumption of 3.00%.

VCERA's investment consultant, New England Pension Consultants (NEPC), anticipates an annual inflation rate of 2.75%, while the average inflation assumption provided by NEPC and six other investment advisory firms retained by Segal's California public sector clients was 2.40%. Note that, in general, investment consultants use a time horizon[3] for this assumption that is shorter than the time horizon of the actuarial valuation.

1 Source: Bureau of Labor Statistics – Based on CPI for All items in U.S. city average, all urban consumers, not seasonally adjusted (Series Id: CUUR0000SA0)

2 Among 168 large public retirement funds, the inflation assumption was not available for 14 of the public retirement funds in the survey data.

3 The time horizon used by the seven investment consultants included in our review generally ranges from 10 years to 30 years and NEPC uses 30 years.

To find a forecast of inflation based on a longer time horizon, we referred to the 2017 report on the financial status of the Social Security program.[4] The projected average increase in the Consumer Price Index (CPI) over the next 75 years under the intermediate cost assumptions used in that report was 2.60%. Besides projecting the results under the intermediate cost assumptions using an inflation assumption of 2.60%, alternative projections were also made using a lower and a higher inflation assumption of 2.00% and 3.20%, respectively.

We also compared the yields on the thirty-year inflation indexed U.S. Treasury bonds to comparable traditional U.S. Treasury bonds.[5] As of April 2018, the difference in yields is about 2.14%, which provides a measure of market expectations of inflation.

Based on all of the above information, we recommend that the current 3.00% annual inflation assumption be reduced to 2.75% for the June 30, 2018 actuarial valuation.

The setting of the inflation assumption using the information outlined above is a somewhat subjective process, and Segal does not apply a specific weight to each of the metrics in determining our recommended inflation assumption. Based on a consideration of all these metrics, we have recently been recommending the same 2.75% inflation assumption in our experience studies for our California based public retirement system clients. As discussed on the previous page of this report, several large California public retirement systems have recently adopted a 2.75% inflation assumption in their valuations, including two systems (Contra Costa County and Orange County) that are Segal clients.

Retiree Cost of Living Increases

Consistent with our recommended inflation assumption, we also recommend reducing the current assumptions to value the post-retirement COLA benefit from 3.00% to 2.75% per year for all General Tier 1 and Safety members.

Note that General Tier 2 members with COLA provision are entitled to receive a fixed 2% COLA, not limited to actual changes in the CPI, that applies to future service after March 2003. The current and proposed COLA assumptions are shown below:

Maximum COLA for all General Tier 1 and Safety Members	Current Assumption	Proposed Assumption
3.00%	3.00%	2.75%

In developing the COLA assumption, we also considered the results of a stochastic approach that would attempt to account for the possible impact of low inflation that could occur before COLA banks are able to be established for the member. Although the results of this type of analysis might justify the use of a lower COLA assumption, we are not recommending that at this time. The reasons for this conclusion include the following:

4 Source: Social Security Administration – The 2017 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds

5 Source: Board of Governors of the Federal Reserve System

- The results of the stochastic modeling are significantly dependent on assuming that lower levels of inflation will persist in the early years of the projections. If this is not assumed, then the stochastic modeling will produce results similar to our proposed COLA assumptions.
- Using a lower long-term COLA assumption based on a stochastic analysis would mean that an actuarial loss would occur even when the inflation assumption of 3.00% is met in a year. We question the reasonableness of this result.

We do not see the stochastic possibility of COLAs averaging less than those predicted by the assumed rate of inflation as a reliable source of cost savings that should be anticipated in our COLA assumptions. Therefore, we continue to recommend setting the COLA assumptions based on the long-term annual inflation assumption, as we have in prior years.

B. Investment Return

The investment return assumption is comprised of two primary components, inflation and real rate of investment return, with adjustments for expenses and risk.

Real Rate of Investment Return

This component represents the portfolio's incremental investment market returns over inflation. Theory has it that as an investor takes a greater investment risk, the return on the investment is expected to also be greater, at least in the long run. This additional return is expected to vary by asset class and empirical data supports that expectation. For that reason, the real rate of return assumptions are developed by asset class. Therefore, the real rate of return assumption for a retirement association's portfolio will vary with the Board's asset allocation among asset classes.

The following is the VCERA's current target asset allocation and the assumed real rate of return assumptions by asset class. The first column of real rate of return assumptions are determined by reducing NEPC's total or "nominal" 2018 return assumptions by their assumed 2.75% inflation rate. The second column of returns (except for Master Limited Partnerships, Absolute Return Fixed Income, Private Debt/Credit Strategies, Absolute Return (Risk Parity) and Private Equity) represents the average of a sample of real rate of return assumptions. The sample includes the expected annual real rate of return provided to us by NEPC and six other investment advisory firms retained by Segal's public sector clients. We believe these averages are a reasonable consensus forecast of long-term future market returns in excess of inflation.[6]

[6] Note that, just as for the inflation assumption, in general the time horizon used by the investment consultants in determining the real rate of return assumption is shorter than the time horizon encompassed by the actuarial valuation.

VCERA'S TARGET ASSET ALLOCATION AND ASSUMED ARITHMETIC REAL RATE OF RETURN ASSUMPTIONS BY ASSET CLASS AND FOR THE PORTFOLIO

Asset Class	Percentage of Portfolio	NEPC's Assumed Real Rate of Return[7]	Average Assumed Real Rate of Return from a Sample of Consultants to Segal's California Public Sector Clients[8]
Large Cap Equity	27.04%	6.08%	5.32%
Small Cap Equity	4.48%	6.89%	6.07%
Developed Int'l Equity	17.32%	6.98%	6.68%
Emerging Market Equity	4.16%	9.72%	8.87%
Core Bonds	9.00%	1.17%	1.04%
Real Estate	8.00%	4.88%	4.65%
Master Limited Partnerships[9]	4.00%	6.31%	6.31%[10]
Absolute Return Fixed Income	7.00%	1.71%	1.71%[10]
Private Debt/Credit Strategies	3.00%	5.50%	5.50%[10]
Absolute Return (Risk Parity)[9]	6.00%	4.63%	4.63%[10]
Private Equity	10.00%	8.97%	8.97%[10]
Total	**100.00%**	**5.77%**	**5.41%**

The above are representative of "indexed" returns and do not include any additional returns ("alpha") from active management. This is consistent with the Actuarial Standard of Practice No. 27, Section 3.6.3.d, which states:

> "Investment Manager Performance - Anticipating superior (or inferior) investment manager performance may be unduly optimistic (or pessimistic). The actuary should not assume that superior or inferior returns will be achieved, net of investment expenses, from an active investment management strategy compared to a passive investment management strategy unless the actuary believes, based on relevant supporting data, that such superior or inferior returns represent a reasonable expectation over the measurement period."

The following are some observations about the returns provided above:

1. The investment consultants to our California public sector clients have each provided us with their expected real rates of return for each asset class, over various future periods of time. However, in general, the returns available from investment consultants are projected over time periods shorter than the durations of a retirement plan's liabilities.

[7] Derived by reducing NEPC's nominal rate of return assumptions by their assumed 2.75% inflation rate. These returns are net of active management fees.

[8] These are based on the projected arithmetic returns provided by NEPC and six other investment advisory firms serving the county retirement system of Ventura and 16 other city and county retirement systems in California. These return assumptions are gross of any applicable investment expenses, except for NEPC's returns as noted in the footnote above.

[9] These are categorized as "Real Assets" when reported to VCERA by NEPC.

[10] For these asset classes, NEPC's assumption is applied in lieu of the average because there is a larger disparity in returns for these asset classes among the firms surveyed and using NEPC's assumption should more closely reflect the underlying investments made specifically for VCERA.

2. Using a sample average of expected real rate of returns allows the VCERA's investment return assumption to reflect a broader range of capital market information and should help reduce year to year volatility in the investment return assumption.

3. Therefore, we recommend that the 5.41% portfolio real rate of return be used to determine VCERA's investment return assumption. This is 0.15% higher than the return that was used three years ago in the review of the recommended investment return assumption for the June 30, 2015 valuation. The difference is due to changes in the System's target asset allocation (+0.36%), changes in the real rate of return assumptions provided to us by the investment advisory firms (-0.17%) and the interaction effect between these changes (-0.04%).

Association Expenses

For funding purposes, the real rate of return assumption for the portfolio needs to be adjusted for investment and administrative expenses expected to be paid from investment income. The following table provides these expenses in relation to the actuarial value of assets for the five years ending June 30, 2017.

ADMINISTRATIVE AND INVESTMENT EXPENSES AS A PERCENTAGE OF ACTUARIAL VALUE OF ASSETS (Dollars in 000's)

Year Ending June 30	Actuarial Value of Assets[11]	Administrative Expenses	Investment Expenses[12,13]	Administrative %	Investment %	Total %
2013	$3,633,626	$3,944	$8,725	0.11	0.24	0.35
2014	3,964,814	4,045	9,237	0.10	0.23	0.33
2015	4,311,131	3,854	10,055	0.09	0.23	0.32
2016	4,592,439	4,474	9,788	0.10	0.21	0.31
2017	4,963,653	5,524	9,405	0.11	0.19	0.30
Five-Year Average				0.10	0.22	0.32
Recommendation						0.30

Note that we have excluded the investment expenses associated with private equity and real assets because the capital market assumptions provided by NEPC for those categories are already net of active management fees.

The average expense percentage over this five-year period is 0.32%. Based on this experience, we have reduced the future expense assumption component from 0.40% to 0.30%. This assumption will be re-examined in subsequent assumption reviews as new data becomes available.

[11] As of end of plan year.

[12] Net of securities lending expenses. Because we do not assume any additional net return for this program, we effectively assume that any securities lending expenses will be offset by related income.

[13] Net of expenses associated with private equity and alternative investments.

Note related to investment expenses paid to active managers – As cited above, under Section 3.6.3.d of ASOP No. 27, the effect of an active investment management strategy should be considered "net of investment expenses…unless the actuary believes, based on relevant data, that such superior or inferior returns represent a reasonable expectation over the measurement period." For VCERA, a significant portion of the investment expenses were paid for expenses associated with active managers.

We have not performed a detailed analysis to measure how much of the investment expenses paid to active managers might have been offset by additional returns ("alpha") earned by that active management.

As noted above, we have excluded investment expenses associated with private equity and real assets. If necessary, we will work with the VCERA's staff to determine whether future studies might potentially further exclude additional investment expenses for active managers that are expected to be offset by investment returns. For now, we will continue to use the current approach that any "alpha" that may be identified would be treated as an increase in the risk adjustment and corresponding confidence level. For example, 0.25% of alpha would increase the confidence level by 3% (see discussions that follow on definitions of risk adjustment and confidence level).

Risk Adjustment

The real rate of return assumption for the portfolio is adjusted to reflect the potential risk of shortfalls in the return assumptions. VCERA's asset allocation determines this portfolio risk, since risk levels are driven by the variability of returns for the various asset classes and the correlation of returns among those asset classes. This portfolio risk is incorporated into the real rate of return assumption through a risk adjustment.

The purpose of the risk adjustment (as measured by the corresponding confidence level) is to increase the likelihood of achieving the actuarial investment return assumption in the long term.[14] The 5.41% expected real rate of return developed earlier in this report was based on expected mean or average arithmetic returns. This means there is a 50% chance of the actual return in each year being at least as great as the average (assuming a symmetrical distribution of future returns). The risk adjustment is intended to increase that probability somewhat above the 50% level. This is consistent with our experience that retirement plan fiduciaries would generally prefer that returns exceed the assumed rate more often than not. Note that, based on the investment return assumptions recently adopted by systems that have been analyzed under this model, we observe a confidence level generally in the range of 50% to 60%.

Three years ago, the Board adopted an investment return assumption of 7.50%. That return implied a risk adjustment of 0.36%, reflecting a confidence level of 54% that the actual average return over 15 years would not fall below the assumed return, assuming that the distribution of returns over that period follows the normal statistical distribution.[15]

[14] This type of risk adjustment is sometimes referred to as a "margin for adverse deviation."

[15] Based on an annual portfolio return standard deviation of 12.69% provided by NEPC in 2015. Strictly speaking, future compounded long-term investment returns will tend to follow a log-normal distribution. However, we believe the Normal distribution assumption is reasonable for purposes of setting this type of risk adjustment.

In our model, the confidence level associated with a particular risk adjustment represents the likelihood that the actual average return would equal or exceed the assumed value over a 15-year period. For example, if we set our real rate of return assumption using a risk adjustment that produces a confidence level of 60%, then there would be a 60% chance (6 out of 10) that the average return over 15 years will be equal to or greater than the assumed value. The 15-year time horizon represents an approximation of the "duration" of the fund's liabilities, where the duration of a liability represents the sensitivity of that liability to interest rate variations.

If we use the same 54% confidence level from our last study to set this year's risk adjustment, based on the current long-term portfolio standard deviation of 13.61% provided by NEPC, the corresponding risk adjustment would be 0.38%. Together with the other investment return components, this would result in an investment return assumption of 7.48%, which is slightly lower than the current assumption of 7.50%.

Based on the general practice of using one-quarter percentage point increments for economic assumptions, we evaluated the effect on the confidence level of other alternative investment return assumptions. In particular, due to the higher risk profile of the current target asset allocation compared to VCERA's prior asset allocation and compared to the other California retirement systems that we evaluate using this risk model, we believe that a higher confidence level could be justified. Therefore, we recommend a 7.25% investment return assumption to reflect the additional risk taken on by VCERA. Together with the other investment return components, the 7.25% investment return assumption would produce a risk adjustment of 0.61%, which corresponds to a confidence level of 57%.

The table below shows VCERA's investment return assumptions and for the years when this analysis was performed, the risk adjustments and corresponding confidence levels compared to the values for prior studies. Note that the recommended confidence level of 57% is the same as the confidence level adopted by the Board for the 2009-2011 valuations.

HISTORICAL INVESTMENT RETURN ASSUMPTIONS, RISK ADJUSTMENTS AND CONFIDENCE LEVELS BASED ON ASSUMPTIONS ADOPTED BY THE BOARD

Year Ending June 30	Investment Return	Risk Adjustment	Corresponding Confidence Level
2009 - 2011	8.00%	0.57%	57%
2012 - 2014	7.75%	0.41%	54%
2015 - 2017	7.50%	0.36%	54%
2018 (Recommended)	7.25%	0.61%	57%

As we have discussed in prior experience studies, the risk adjustment model and associated confidence level is most useful as a means for comparing how VCERA has positioned itself relative to risk over periods of time[16]. The use of a 57% confidence level should be considered in context with other factors, including:

[16] In particular, it would not be appropriate to use this type of risk adjustment as a measure of determining an investment return rate that is "risk-free."

- As noted above, the confidence level is more of a relative measure than an absolute measure, and so can be reevaluated and reset for future comparisons.

- The confidence level is based on the standard deviation of the portfolio that is determined and provided to us by NEPC. The standard deviation is a statistical measure of the future volatility of the portfolio and so is itself based on assumptions about future portfolio volatility and can be considered somewhat of a "soft" number.

- A confidence level of 57% is within the range of about 50% to 60% that corresponds to the risk adjustments used by most of Segal's other California public retirement system clients. Again, taking into account the higher risk profile of the current target asset allocation compared to other California retirement systems, we believe that a higher confidence level could be justified.

- As with any model, the results of the risk adjustment model should be evaluated for reasonableness and consistency. This is discussed in the later section on "Comparison with Other Public Retirement Systems".

Taking into account the factors above, our recommendation is to reduce the net investment return assumption from 7.50% to 7.25%. As noted above, this return implies a 0.61% risk adjustment, reflecting a confidence level of 57% that the actual average return over 15 years would not fall below the assumed return.

Recommended Investment Return Assumption

The following table summarizes the components of the investment return assumption developed in the previous discussion. For comparison purposes, we have also included similar values from the last study.

	Recommended Value	Adopted Value
Assumption Component	**June 30, 2018**	**June 30, 2015**
Inflation	2.75%	3.00%
Plus Average Real Rate of Return	5.41%	5.26%
Minus Expense Adjustment	(0.30%)	(0.40%)
Minus Risk Adjustment	(0.61%)	(0.36%)
Total	**7.25%**	**7.50%**
Confidence Level	**57%**	**54%**

Based on this analysis, we recommend that the investment return assumption be decreased from 7.50% to 7.25% per annum.

Comparing with Other Public Retirement Systems

One final test of the recommended investment return assumption is to compare it against those used by other public retirement systems, both in California and nationwide.

We note that a 7.25% investment return assumption is the most common among California public sector retirement systems with many other systems reducing it to 7.00% or lower. In particular, seven County employees' retirement systems use a 7.00% earnings assumption. Furthermore, the CalPERS Board has approved a reduction in the earnings assumption to 7.00% and CalSTRS adopted a 7.00% earnings assumption for the 2017 valuation.

The following table compares VCERA's recommended net investment return assumption against those of the nationwide public retirement systems that participated in the National Association of State Retirement Administrators (NASRA) 2017 Public Fund Survey for 168 large public retirement funds[17] in their 2016 fiscal year valuations:

		NASRA 2016 Public Fund Survey[18]		
Assumption	**VCERA**	**Low**	**Median**	**High**
Net Investment Return	7.25%	6.50%	7.50%	8.50%

The detailed survey results show that more than one-half of the systems have an investment return assumption in the range of 6.75% to 7.50%, and over half of those systems have used an assumption of 7.50%. The survey also notes that several plans have reduced their investment return assumption during the last year. State systems outside of California tend to change their economic assumptions less frequently and so may lag behind emerging practices in this area.

In summary, we believe that both the risk adjustment model and the higher risk associated with the asset allocation indicate a lower earnings assumption. The recommended assumption of 7.25% provides for a risk margin within the risk adjustment model consistent with VCERA practice, and it is consistent with VCERA's current practice relative to other public systems.

C. Salary Increase

Salary increases impact plan costs in two ways: (i) by increasing members' benefits (since benefits are a function of the members' highest average pay) and future normal cost collections; and (ii) by increasing total active member payroll which in turn generates lower UAAL contribution rates. These two impacts are discussed separately below.

As an employee progresses through his or her career, increases in pay are expected to come from three sources:

1. **Inflation:** Unless pay grows at least as fast as consumer prices grow, employees will experience a reduction in their standard of living. There may be times when pay increases lag or exceed inflation, but over the long term, labor market forces may require an employer to maintain its employees' standards of living.

   As discussed earlier in this report, we are recommending that the assumed rate of inflation be reduced from 3.00% to 2.75% per annum. This inflation component is used as part of the salary increase assumption.

[17] Among 168 large public retirement funds, the investment return assumption was not available for 12 of the public retirement funds in the survey data.

[18] Public Plans Data website – Produced in partnership with the National Association of State Retirement Administrators (NASRA)

2. **Real "Across the Board" Pay Increases:** These increases are typically termed productivity increases since they are considered to be derived from the ability of an organization or an economy to produce goods and services in a more efficient manner. As that occurs, at least some portion of the value of these improvements can provide a source for pay increases. These increases are typically assumed to extend to all employees "across the board". The State and Local Government Workers Employment Cost Index produced by the Department of Labor provides evidence that real "across the board" pay increases have averaged about 0.6% - 0.8% annually during the last ten to twenty years.

   We also referred to the annual report on the financial status of the Social Security program published in July 2017. In that report, real "across the board" pay increases are forecast to be 1.2% per year under the intermediate assumptions.

   The real pay increase assumption is generally considered a more "macroeconomic" assumption, which is not necessarily based on individual plan experience. However, recent salary experience with public systems in California as well as anecdotal discussions with plans and plan sponsors indicate lower future real wage growth expectations for public sector employees. We note that for VCERA's active members, the actual average inflation plus "across the board" increase (i.e., wage inflation) over three year period ending June 30, 2017 was 3.08%.

   Considering these factors, we recommend maintaining the real "across the board" salary increase assumption at 0.50%. This means that the combined inflation and "across the board" salary increase assumption will decrease from 3.50% to 3.25%.

3. **Promotional and Merit Increases:** As the name implies, these increases come from an employee's career advances. This form of pay increase differs from the previous two, since it is specific to the individual. For VCERA, there are service-specific promotional and merit increases.

   The annual promotional and merit increases are determined by measuring the actual increases received by members over the experience period, net of the inflationary and real "across the board" pay increases. Increases are measured separately for General and Safety members. This is accomplished by:

   a. Measuring each continuing member's actual salary increase over each year of the experience period;

   b. Excluding any members with increases of more than 50% or decreases of more than 10% during any particular year;

   c. Categorizing these increases according to member demographics;

   d. Removing the wage inflation component from these increases (assumed to be equal to the increase in the members' average salary during the year);

   e. Averaging these annual increases over the three-year experience period; and

   f. Modifying current assumptions to reflect some portion of these measured increases reflective of their "credibility."

To be consistent with the other economic assumptions, these promotional and merit assumptions should be used in combination with the 3.25% assumed inflation and real "across the board" increases.

The following table shows the General members' actual average promotional and merit increases by years of service over the three-year period from July 1, 2014 through June 30, 2017 along with the actual average increases based on combining the current three-year period with the three years from the prior experience study. The current and proposed assumptions are also shown. The actual increases for the most recent three-year period were reduced by the actual average inflation plus "across the board" increase (i.e., wage inflation, estimated as the increase in average salaries) for each year over the current three-year experience period (3.3% on average).

GENERAL MEMBERS
PROMOTIONAL AND MERIT INCREASES

	Rate (%)			
Years of Service	**Current Assumptions**	**Actual Average Increase (Last 3 Years)**	**Actual Average Increase from Current and Prior Study**	**Proposed Assumption**
Less than 1	6.00	9.17	8.41	7.00
1	4.25	6.81	6.08	5.25
2	3.25	5.51	4.64	4.00
3	2.75	5.07	4.02	3.50
4	2.25	4.07	3.30	2.75
5	1.75	3.56	2.80	2.25
6	1.25	3.54	3.00	2.00
7	1.00	3.13	2.42	1.75
8	0.75	2.80	1.99	1.50
9	0.50	2.89	1.75	1.25
10	0.50	3.05	1.95	1.00
11	0.50	2.58	1.74	0.95
12	0.50	2.64	1.78	0.90
13	0.50	2.26	1.73	0.85
14	0.50	2.65	2.05	0.80
15	0.50	2.35	1.80	0.75
16	0.50	1.56	1.21	0.70
17	0.50	2.18	1.43	0.65
18	0.50	1.58	1.39	0.60
19	0.50	1.55	0.94	0.55
20 & over	0.50	1.90	1.11	0.50

The following table provides the same information for Safety members. The actual average promotional and merit increases were determined by reducing the actual average total salary increases by the actual average inflation plus real "across the board" increase (i.e., wage inflation, estimated as the increase in average salaries) for each year over the three-year period (3.2% on average).

SAFETY MEMBERS
PROMOTIONAL AND MERIT INCREASES

	Rate (%)			
Years of Service	Current Assumptions	Actual Average Increase (Last 3 Years)	Actual Average Increase from Current and Prior Study	Proposed Assumption
Less than 1	8.00	11.95	9.62	8.50
1	6.25	7.33	6.82	6.50
2	4.75	5.75	5.33	5.00
3	4.00	4.84	4.33	4.25
4	3.25	6.21	5.63	3.75
5	3.00	4.33	4.16	3.50
6	2.25	3.41	3.05	2.50
7	1.50	1.51	1.45	1.50
8	1.25	0.31	1.09	1.25
9	1.00	0.84	1.25	1.00
10	0.75	2.23	1.01	0.95
11	0.75	1.39	1.13	0.90
12	0.75	0.33	0.29	0.85
13	0.75	1.19	1.11	0.80
14	0.75	0.76	0.84	0.70
15	0.75	0.72	1.02	0.70
16	0.50	0.88	0.76	0.70
17	0.50	1.46	1.19	0.70
18	0.50	1.17	1.31	0.70
19	0.50	1.27	1.31	0.70
20 & over	0.50	1.18	0.94	0.70

Charts 1 and 2 provide a graphical comparison of the actual promotional and merit increases, compared to the proposed and current assumptions. The charts also show the actual promotional and merit increases based on an average of both the current and previous three-year experience periods. This is discussed below. Chart 1 shows this information for General members and Chart 2 for Safety members.

We realize that the most recent three-year experience period may not be typically indicative of future long-term promotional and merit salary increases. Therefore, we also examined the promotional and merit salary experience from the prior experience study. We believe that when the experience from the last two studies are combined into an average result, it provides a more reasonable representation of potential future promotional and merit salary increases over the long term. Nevertheless, in our proposed changes to promotional and merit salary increases, we have still given relatively less weight to the actual average increases during the last two studies.

Based on this experience, we are proposing increases overall in the promotional and merit salary increases for both General and Safety members. Overall, salary increases are assumed to be slightly higher for General members and slightly lower for Safety members since we are recommending a change to lower the price inflation assumption.

Active Member Payroll

Projected active member payrolls are used to develop the UAAL contribution rate. Future values are determined as a product of the number of employees in the workforce and the average pay for all employees. The average pay for all employees increases only by inflation and real "across the board" pay increases. The promotional and merit increases are not an influence, because this average pay is not specific to an individual.

We recommend that the active member payroll increase assumption be decreased from 3.50% to 3.25% annually, consistent with the combined inflation plus real "across the board" salary increase assumptions.

CHART 1: PROMOTIONAL AND MERIT SALARY INCREASE RATES GENERAL MEMBERS

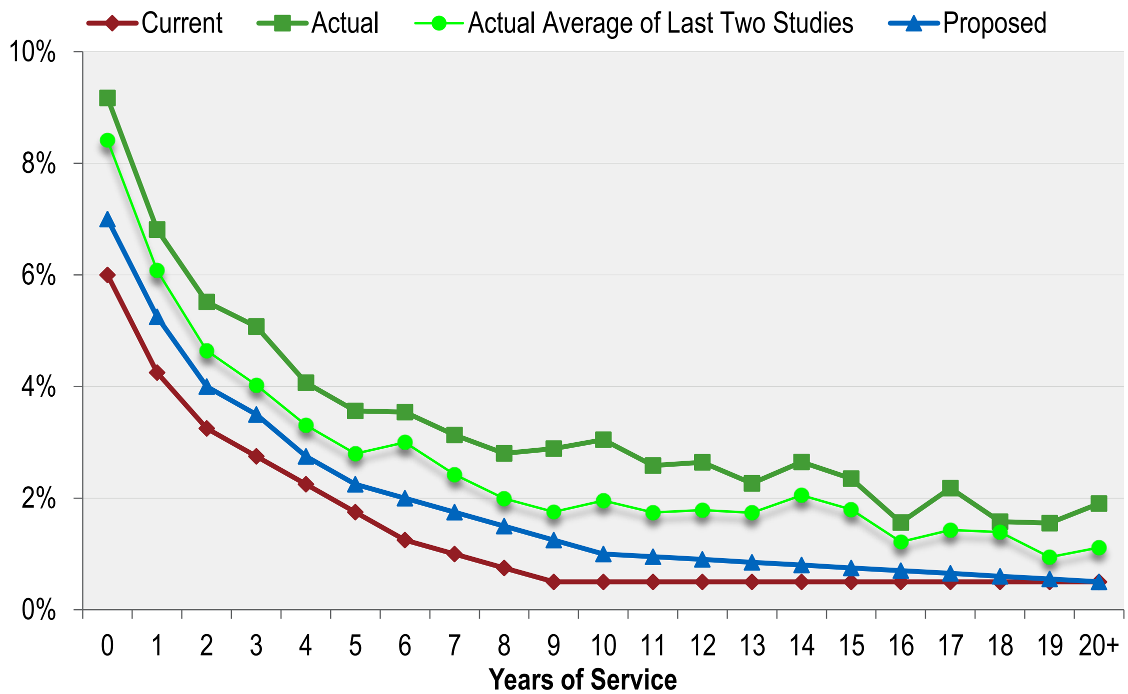
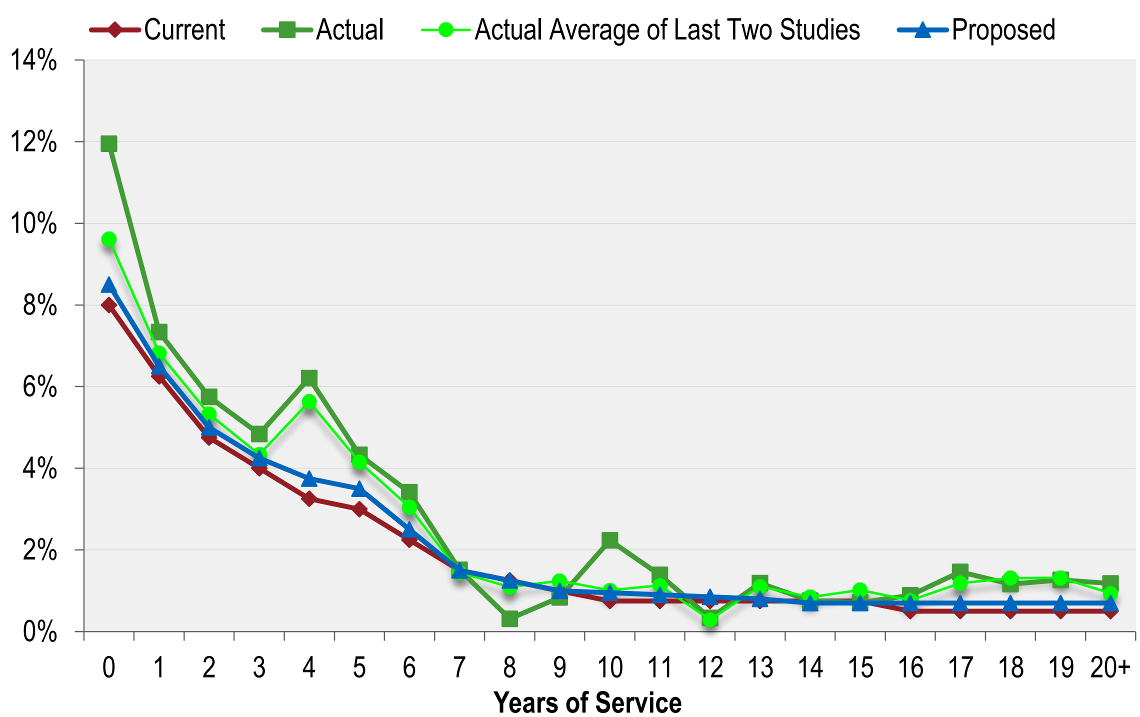


CHART 2: PROMOTIONAL AND MERIT SALARY INCREASE RATES SAFETY MEMBERS



IV. Demographic Assumptions

A. Retirement Rates

The age at which a member retires from service (i.e., who did not retire on a disability pension) will affect both the amount of the benefits that will be paid to that member as well as the period over which funding must take place.

Currently, the assumed retirement rates are a function of only member's age. Our experience review analyzed recent years' retirement experience both as a function of age and years of service in relation to the probability of retirement. Our review concludes that the retirement rates correlate both with age and with years of service especially for those with high years of service.

As a result of this observation, we recommend that retirement rates be structured as a function of both age and years of service. The new structure of retirement assumptions will apply different sets of age based retirement assumptions for those with less than 30 years of service and to those with more than 30 years of service.

The table on the following page shows the observed service retirement rates for non-PEPRA General members based on the actual experience over the past three years. Due to the change in structure described above, we also used the experience from the prior study along with the current period in developing our proposed assumptions. The observed service retirement rates were determined by comparing those members who actually retired from service to those eligible to retire from service. This same methodology is followed throughout this report and was described in Section II. Also shown are the current rates assumed and the rates we propose:

Non-PEPRA General Tiers

	Rate of Retirement (%)				
		Less than 30 Years of Service		30 or More Years of Service	
Age	Current Rate	Actual Rate	Proposed Rate	Actual Rate	Proposed Rate
Under 50	0.00	100.00	0.00	0.00	50.00
50	2.50	1.94	2.00	0.00	2.00
51	2.50	1.79	2.00	0.00	2.00
52	3.00	2.26	2.50	0.00	2.50
53	3.50	1.97	3.00	0.00	3.00
54	4.00	1.67	3.25	2.63	3.25
55	4.50	4.72	4.75	9.09	4.75
56	5.00	4.94	5.00	1.82	5.00
57	6.00	5.14	5.50	6.90	5.50
58	8.00	6.04	7.00	8.77	7.00
59	8.00	6.54	7.50	10.91	7.50
60	12.00	9.72	10.50	13.73	15.75
61	15.00	11.83	14.00	26.32	21.00
62	22.00	27.50	25.00	48.94	37.50
63	20.00	17.99	20.00	30.43	30.00
64	22.00	18.75	20.00	14.29	30.00
65	30.00	26.12	28.00	71.43	42.00
66	35.00	32.10	35.00	66.67	52.50
67	35.00	30.16	30.00	16.67	45.00
68	35.00	18.87	30.00	20.00	45.00
69	20.00	27.27	22.50	0.00	22.50
70	20.00	30.30	22.50	0.00	22.50
71	20.00	16.67	20.00	0.00	20.00
72	20.00	6.67	20.00	0.00	20.00
73	20.00	29.41	20.00	25.00	20.00
74	30.00	27.78	20.00	0.00	20.00
75 & Over	100.00	17.65	100.00	14.29	100.00

As shown above, we are recommending decreases in most of the retirement rates for non-PEPRA General members with less than 30 years of service and recommending increases in most of the retirement rates for non-PEPRA General members with 30 or more years of service.

The same retirement rates are proposed for both General Tier 1 and Tier 2 members. This is because retirement experience is largely driven by Tier 2 members as there are very few Tier 1 non-retired members.

In some age categories, limited experience is available such as under age 50 (for those with 30 or more years of service) or over age 65. For the under age 50 category, we are proposing the introduction of a 50% retirement rate. For ages over 65, there is some smoothing of the proposed rates for those age categories.

Chart 3 that follows later in this section compares actual experience with the current and proposed rates of retirement for non-PEPRA General members with less than 30 years of service.

Chart 4 compares actual experience with the current and proposed rates for non-PEPRA General members with 30 or more years of service.

The following table shows the observed retirement rates for non-PEPRA Safety members over the past three years. Also shown are the current rates assumed and the rates we propose:

Non-PEPRA Safety Tiers

	Rate of Retirement (%)				
		Less than 30 Years of Service		30 or More Years of Service	
Age	Current Rate	Actual Rate	Proposed Rate	Actual Rate	Proposed Rate
40	1.00	0.00	1.00	0.00	1.00
41	1.00	0.00	1.00	0.00	1.00
42	1.00	0.00	1.00	0.00	1.00
43	1.00	2.70	1.00	0.00	1.00
44	1.00	2.08	1.00	0.00	1.00
45	1.00	0.00	1.00	0.00	1.00
46	1.00	0.00	1.00	0.00	1.00
47	1.00	1.39	1.00	0.00	1.00
48	1.00	1.39	1.00	0.00	1.00
49	1.50	0.00	1.00	0.00	1.00
50	2.50	1.60	2.00	0.00	2.00
51	2.00	2.56	2.25	0.00	2.25
52	3.00	1.98	2.50	0.00	2.50
53	4.00	2.30	3.50	3.57	3.50
54	17.00	11.69	13.00	7.32	13.00
55	22.00	16.67	20.00	47.06	30.00
56	22.00	22.22	20.00	25.93	30.00
57	20.00	18.75	18.00	18.18	27.00
58	19.00	26.67	22.00	42.86	33.00
59	22.00	20.00	22.00	33.33	33.00
60	22.00	18.75	25.00	37.50	37.50
61	25.00	28.57	28.00	50.00	42.00
62	35.00	44.44	35.00	0.00	45.00
63	40.00	14.29	35.00	0.00	45.00
64	40.00	50.00	35.00	100.00	45.00
65 & Over	100.00	40.00	100.00	50.00	100.00

Overall, we are recommending decreases in most of the retirement rates for non-PEPRA Safety members with less than 30 years of service and recommending increases in most of the retirement rates for non-PEPRA Safety members with 30 or more years of service.

Chart 5 compares actual experience with the current and proposed rates for non-PEPRA Safety members with less than 30 years of service.

Chart 6 compares actual experience with the current and proposed rates for non-PEPRA Safety members with 30 or more years of service.

Note that effective January 1, 2013, new PEPRA formulas were implemented for new General and Safety tiers. For these new tiers we do not have any experience from the past three years to propose new rates based on actual retirements from members of those tiers nor change the current assumption structure based on both age and years of service. However, we have recommended changes to the retirement assumptions at some ages for PEPRA members based on our recommended assumptions for non-PEPRA members. This assumption will continue to be monitored in future experience studies, including whether service based retirement rates should also be implemented for PEPRA tiers.

The following are the current and proposed rates of retirement for PEPRA General and Safety members:

General and Safety PEPRA Tiers

	Rate of Retirement (%)			
Age	Current General PEPRA Tiers	Proposed General PEPRA Tiers	Current Safety PEPRA Tiers	Proposed Safety PEPRA Tiers
50	0.00	0.00	5.00	4.00
51	0.00	0.00	2.00	2.25
52	2.00	1.50	4.00	3.50
53	2.00	1.50	6.00	5.50
54	2.50	2.00	16.00	13.00
55	4.00	4.00	20.00	20.00
56	4.50	4.50	20.00	20.00
57	5.00	5.00	18.00	18.00
58	6.00	5.50	18.00	18.00
59	7.00	6.00	25.00	25.00
60	9.00	9.00	25.00	25.00
61	11.00	11.00	25.00	25.00
62	20.00	22.50	40.00	40.00
63	20.00	20.00	40.00	40.00
64	18.00	18.00	40.00	40.00
65	20.00	20.00	100.00	100.00
66	30.00	30.00	100.00	100.00
67	30.00	30.00	100.00	100.00
68	30.00	25.00	100.00	100.00
69	30.00	35.00	100.00	100.00
70	50.00	50.00	100.00	100.00
71	50.00	50.00	100.00	100.00
72	50.00	50.00	100.00	100.00
73	50.00	50.00	100.00	100.00
74	50.00	50.00	100.00	100.00
75 & Over	100.00	100.00	100.00	100.00

Chart 7 compares the current rates with the proposed rates of retirement for PEPRA General members.

Chart 8 compares the current rates with the proposed rates of retirement for PEPRA Safety members.

Deferred Vested Members

In prior valuations, deferred vested General and Safety members were assumed to retire at age 59 and 54, respectively. The average age at retirement over the prior three years was 60 for General and 52 for Safety. We recommend maintaining the General assumption at age 59 since we recently increased this assumption for General members from age 58 to 59 in the last experience study. We also recommend decreasing the Safety assumption to age 53.

Reciprocity

It was also assumed that 50% of inactive General and 60% of inactive Safety deferred vested participants would be covered under a reciprocal retirement system and receive 4.00% annual salary increases from termination until their date of retirement. As of June 30, 2017, about 41% of the total General deferred vested members and 61% of the total Safety deferred vested members have gone on to be covered by a reciprocal retirement system. As a result, we recommend decreasing the reciprocal assumption to 45% for General members and maintaining the assumption at 60% for Safety members. This recommendation takes into account the experience of all deferred vested members as of June 30, 2017 instead of just new deferred vested members during the three-year period. This is because there is a lag between a member's date of termination and the time that it is known if they have reciprocity with a reciprocal retirement system.

In addition, based on our recommended salary increase assumptions, we propose that the current 4.00% annual salary increase assumption for reciprocal members be decreased to 3.75% (i.e., 2.75% inflation plus 0.50% "across the board" plus 0.50% promotional and merit) for General deferred vested participants and 3.95% (i.e., 2.75% inflation plus 0.50% "across the board" plus 0.70% promotional and merit) for Safety deferred vested participants. This assumption is used to anticipate salary increases (under the reciprocal system) from termination from VCERA to the expected date of retirement. This assumption is based on the ultimate promotional and merit salary increase assumptions for General and Safety members together with the 2.75% inflation and 0.50% real "across the board" salary increase assumptions that are recommended earlier in Section III of this report.

Form of Payment and Survivor Continuance under Unmodified Option

In prior valuations, it was assumed that all members would select the unmodified option at retirement. Actual experience for recent new retirees shows that more than 90% select the unmodified option. Therefore, we recommend maintaining the assumption that all members will elect the unmodified option at retirement.

It was also assumed that 70% of all active male members and 55% of all active female members would be married or have an eligible domestic partner and selected the unmodified option when they retired. We reviewed experience for new retirees during the three-year period and determined the actual percentage of these new retirees that had an eligible spouse or eligible domestic partner at the time of retirement. The results of that analysis are shown below.

	New Retirees – Actual Percent with Eligible Spouse or Domestic Partner and Selected Unmodified Option	
Year Ending June 30	**Male**	**Female**
2015	61%	58%
2016	N/A	N/A
2017	69%	56%
Total	**66%**	**57%**

Note that we have excluded the actual experience for the year ending June 30, 2016 because the beneficiary data was incomplete in that the year due to the change in the pension administrative system. This issue has subsequently been resolved in the June 30, 2017 valuation. According to experience of members who retired for the years ending June 30, 2015 and June 30, 2017, about 66% of all male members and 57% of all female members were married or had a domestic partner at retirement and selected the unmodified option. We recommend maintaining the assumption for both males and females members at 70% and 55%, respectively.

Since the value of the survivor's benefit is dependent on the survivor's age and sex, we must also have assumptions for the age and sex of the survivor. Based on the experience for members who retired during the years ending June 30, 2015 and June 30, 2017 and studies done for other retirement systems, we recommend the following:

1. Since most the survivors are actually the opposite sex, even with the inclusion of domestic partners, we will continue to assume that the survivor's sex is the opposite of the member.

2. The current and proposed assumption for the age of the survivor are shown below. These assumptions will continue to be monitored in future experience studies.

Survivor Ages – Current Assumptions			
	Survivor's Age as Compared to Member's Age		
Beneficiary Sex	**Current Assumption**	**Actual Experience**	**Recommended Assumption**
Male	3 years older	2.1 years older	2 years older
Female	3 years younger	2.5 years younger	3 years younger

CHART 3: RETIREMENT RATES
NON-PEPRA GENERAL MEMBERS WITH LESS THAN 30 YEARS OF SERVICE

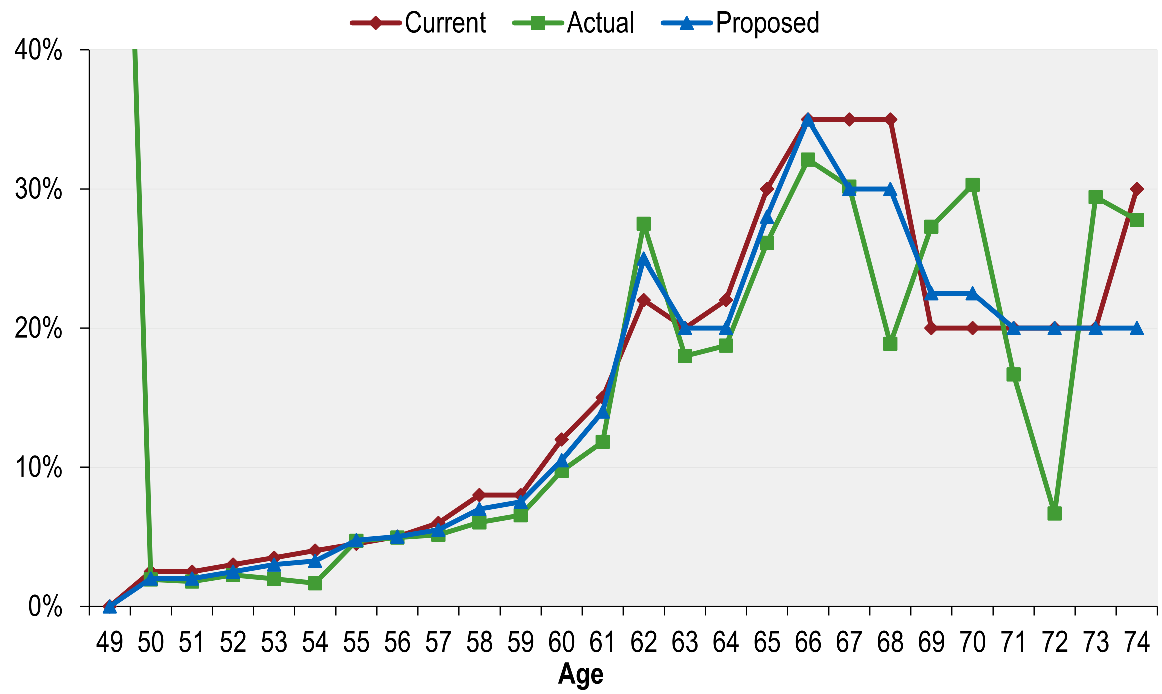


CHART 4: RETIREMENT RATES
NON-PEPRA GENERAL MEMBERS WITH 30 OR MORE YEARS OF SERVICE

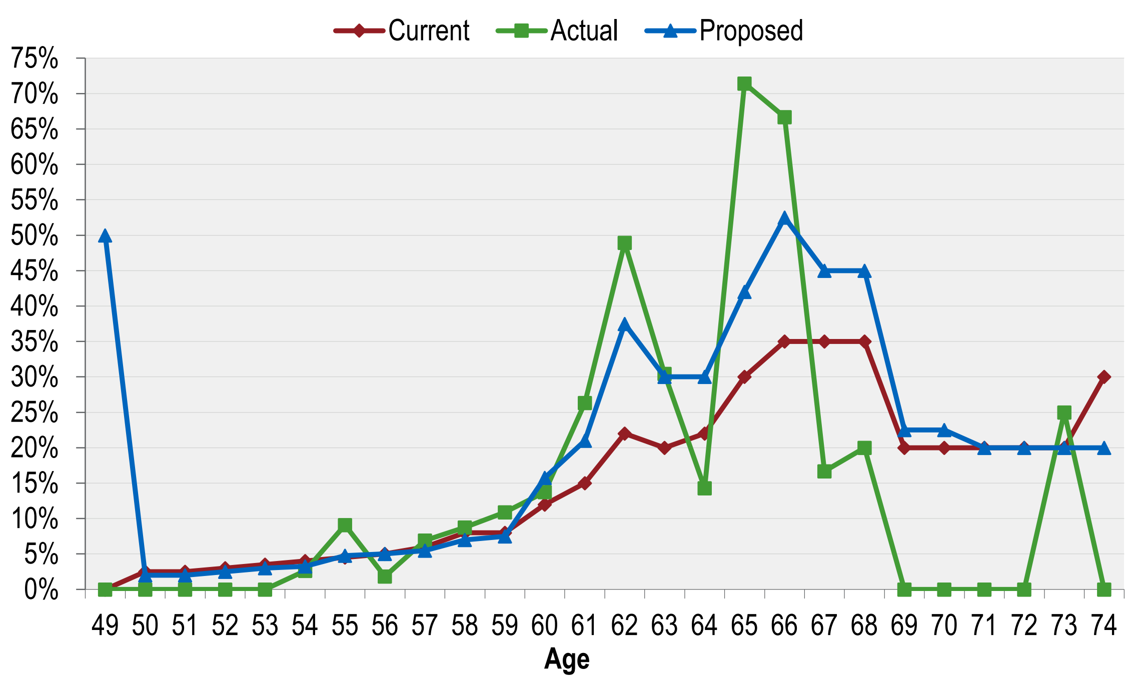


CHART 5: RETIREMENT RATES
NON-PEPRA SAFETY MEMBERS WITH LESS THAN 30 YEARS OF SERVICE

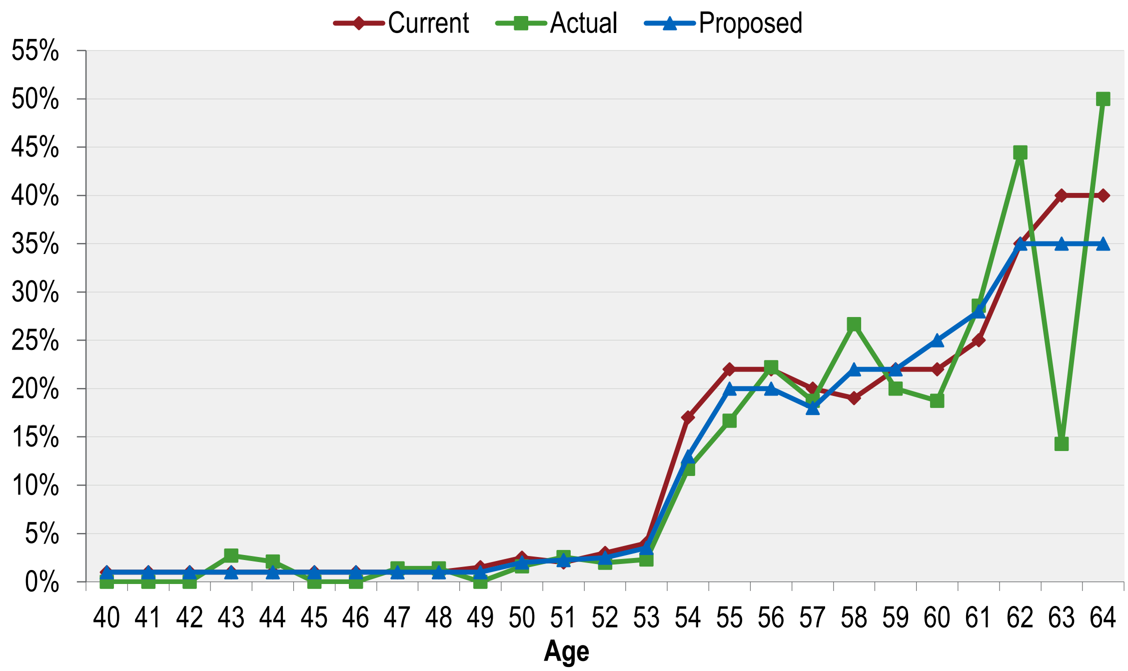


CHART 6: RETIREMENT RATES
NON-PEPRA SAFETY MEMBERS WITH 30 OR MORE YEARS OF SERVICE

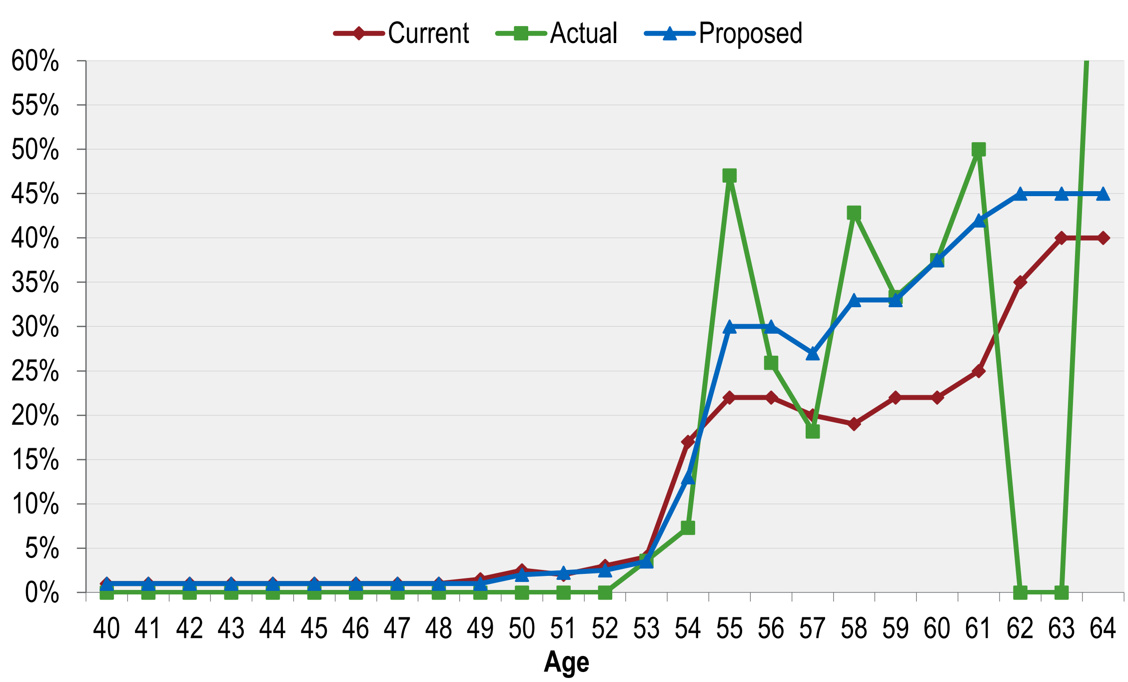


CHART 7: RETIREMENT RATES
PEPRA GENERAL MEMBERS

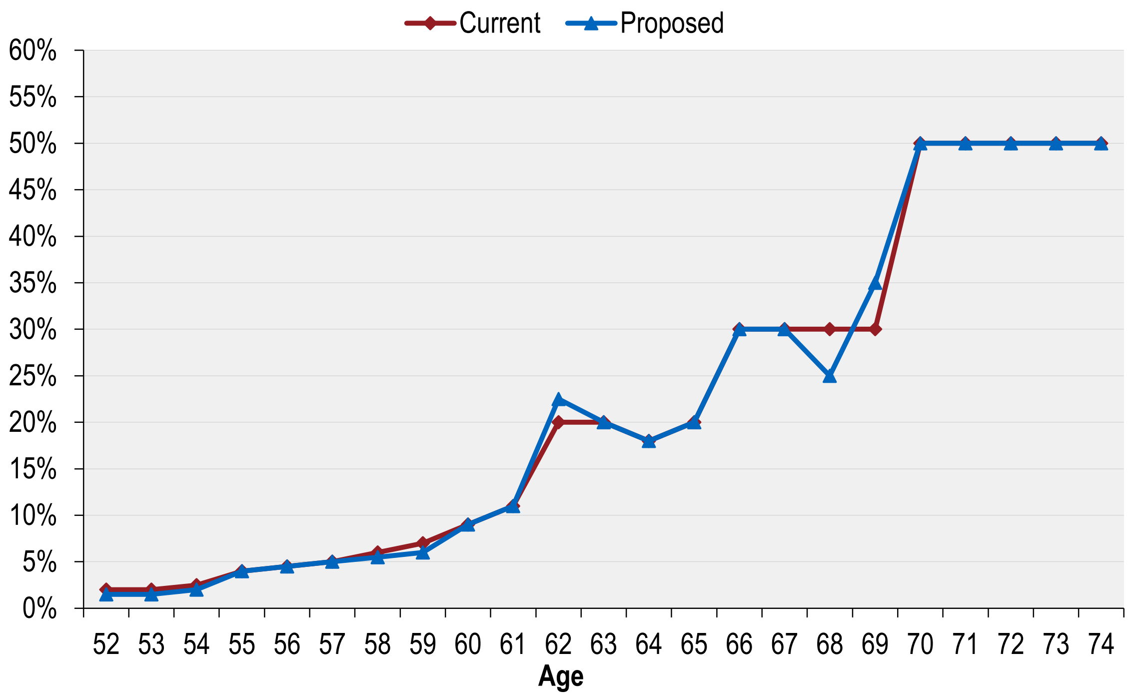
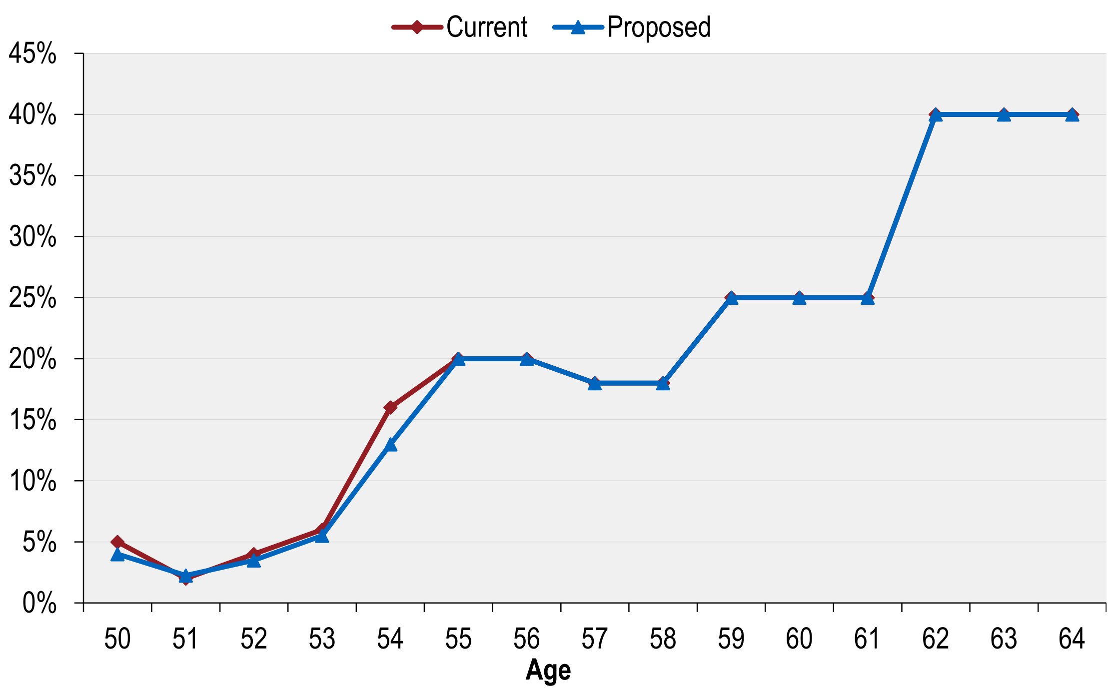


CHART 8: RETIREMENT RATES
PEPRA SAFETY MEMBERS



B. Mortality Rates - Healthy

The "healthy" mortality rates project the life expectancy of a member who retires from service (i.e., who did not retire on a disability pension). Also, the "healthy" pre-retirement mortality rates project what proportion of members will die before retirement. For General members, the table currently being used for post-service retirement mortality rates is the RP-2000 Combined Healthy Mortality Table (separate tables for males and females) projected with Scale BB to 2035 with ages set back one year for males and set forward one year for females. For Safety members, the table currently being used for post-service retirement mortality rates is the RP-2000 Combined Healthy Mortality Table (separate tables for males and females) projected with Scale BB to 2035 with ages set back three years. Beneficiaries are assumed to have the same mortality of a General member of the opposite sex who has taken a service (non-disabled) retirement.

The Society of Actuaries (SOA) has published the RP-2014 family of mortality tables and associated mortality improvement scales. Within that family of mortality tables, there are mortality rates developed for annuitants on a "headcount" weighted basis that weight all retirees at the same age the same way without regard to the level of benefits those annuitants are receiving from a retirement plan. Mortality rates are also developed for annuitants on a "benefit" weighted basis, with higher credibility assigned to experience from annuitants receiving larger benefits. However, we note that the RP-2014 benefit-weighted mortality table was prepared without any data from public and multi-employer pension plans. As a result, the headcount-weighted basis is the approach currently used by Segal for its California public system clients (including VCERA).

The SOA is in the process of collecting data from public sector plans so that they can develop mortality tables based on public sector experience comparable to the RP-2014 mortality tables developed using data collected from private and multi-employer plans. It is our understanding that those mortality tables will be available in 2018/2019. We will include a discussion with the Board on whether to consider the benefit-weighted mortality rates in the next experience study after those public sector experience mortality tables become available.

As for the mortality improvement scales, they can be applied in one of two ways. Historically, the more common application has been to use a "static" approach to anticipate a fixed level of mortality improvement for all annuitants receiving benefits from a retirement plan. This is in contrast to a "generational" approach where each future year has its own mortality table that reflects the forecasted improvements, using the published improvement scales. While the static approach is still used by some of Segal's California public system clients, as well as CalPERS, the "generational" approach is the emerging practice within the actuarial profession.

A generational mortality table provides dynamic projections of mortality experience for each cohort of retirees. For example, the mortality rate for someone who is 65 next year will be slightly less than for someone who is 65 this year. In general, using generational mortality anticipates increases in the cost of the Plan over time as participants' life expectancies are projected to increase. This is in contrast to updating a static mortality assumption with each experience study as we have proposed in prior experience studies.

We understand that the Retirement Plans Experience Committee of the Society of Actuaries (RPEC) intends to publish annual updates to their mortality improvement scales. Improvement scale MP-2017 is the latest improvement scale available. We recommend that given the trend in the retirement industry to move towards generational mortality, it would be reasonable for the Board to adopt the Headcount-Weighted RP-2014 mortality table (adjusted for VCERA experience), and project the mortality improvement generationally using the MP-2017 mortality improvement scale.

As an illustration of the relative impact of these approaches, we have provided in the table below the approximate change in the total employer and member contribution rates based on the different approaches to build in margin for future mortality improvements.

	Employer and Member Contribution Rate Impact Combined
Headcount Weighted RP-2014 Family of Tables – Static Approach	0.0% of payroll
Benefit Weighted RP-2014 Family of Tables – Static Approach	1.0% of payroll
Headcount Weighted RP-2014 Family of Tables – Generational Approach	**0.4% of payroll**
Benefit Weighted RP-2014 Family of Tables – Generational Approach	1.4% of payroll

In order to use more actual VCERA experience in our analysis, we have used experience for a nine-year period by using data from the current (from July 1, 2014 to June 30, 2017) and the last two (from July 1, 2011 to June 30, 2014 and from July 1, 2008 to June 30, 2011) experience study periods to analyze this assumption.

Pre-Retirement Mortality

In prior experience studies, the pre-retirement mortality rates for active members were set equal to the post-retirement mortality rates for retirees since the actual number of deaths among active members was not large enough to provide a statistically creditable analysis. However, this approach is not compatible with our current proposal because the post-retirement RP-2014 Healthy Annuitant tables do not include rates for ages below 50.

From the RP-2014 family of tables, we recommend that pre-retirement mortality follow the Headcount-Weighted RP-2014 Employee Mortality Table (separate tables for males and females) times 80%, projected generationally with the two-dimensional scale MP-2017. The 80% scaling factor is to account for the lower incidences of observed pre-retirement death on the combined General and Safety workforce relative to the standard table. In addition, based on experience from the last three years of 35 total deaths, only one was due to service-connected (duty) causes. Therefore, we recommend maintaining the current assumption that all pre-retirement deaths are assumed to be non-service connected (ordinary).

Post-Retirement Mortality (Service Retirements)

Among all retired members, the actual deaths compared to the expected deaths under the current assumptions for the last nine years is shown in the table below. We also show the deaths under the proposed assumptions. In prior years we have generally set the mortality assumption using a static mortality projection so that actual deaths will be at least 10% greater than those assumed.

As noted above, we are recommending the use of a generational mortality table rather than static mortality. A generational mortality table incorporates a more explicit assumption for future mortality improvement. Accordingly, the goal is to start with a mortality table that closely matches the current experience (without a margin for future mortality improvement), and then reflect mortality improvement by projecting lower mortality rates in future years. That is why the proposed actual to expected ratios shown in the table below for General and Safety are 99% and 94%, respectively. In future years these ratios should remain around 100%, as long as actual mortality improves at the same rates as anticipated in the generational mortality tables. The number of actual deaths compared to the number expected under the current and proposed assumptions for the last nine years are as follows:

	General Members – Healthy			Safety Members - Healthy		
Gender	**Current Expected Deaths**	**Actual Deaths**	**Proposed Expected Deaths**	**Current Expected Deaths**	**Actual Deaths**	**Proposed Expected Deaths**
Male	259	319	337	45	58	65
Female	381	439	428	3	8	5
Total	**640**	**758**	**765**	**48**	**66**	**70**
Actual / Expected	118%		99%	138%		94%

Even with the use of nine years of experience, the data is only partially credible, based on standard statistical theory. The number of deaths needed for full credibility is 1,082 (90% confident that the results are within 5% of the expected value). Therefore, in our recommended assumptions we did not fully adjust the RP-2014 mortality tables to fit VCERA's experience. In future experience studies, more data will be available which may increase the credibility further.

For General members, the combined ratio of actual to expected deaths was 118%. We recommend updating the current table to the Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females) times 90% for males and 100% for females, projected generationally with the two-dimensional mortality improvement scale MP-2017. This will bring the actual to expected ratio to 99%.

For Safety members, the combined ratio of actual to expected deaths was 138%. We recommend updating the current table to the Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females) times 75% for males and 85% for females, projected generationally with the two-dimensional mortality improvement scale MP-2017. This will bring the actual to expected ratio to 94%.

All of this is consistent with ASOP 35 as we anticipate expected future improvement in life expectancy using the generational approach.

Chart 9 compares actual to expected deaths for General members under the current and proposed assumptions over the past nine years. Experience shows that there were more deaths than predicted by the current table.

Chart 10 has the same comparison for Safety members. Experience shows that there were more deaths than predicted by the current table.

Chart 11 shows the life expectancies (i.e., expected future lifetime) under the current and the proposed tables for General members.

Chart 12 shows the same information for Safety members.

The expected deaths (Charts 9 and 10) and life expectancies (Charts 11 and 12) under the proposed generational mortality table are based on mortality rates from 2014 which is the base year of the table. In practice, life expectancies will be assumed to increase based on applying the mortality improvement scale.

Mortality Table for Member Contributions, Optional Forms of Payment and Reserves

There are administrative reasons why a generational mortality table is more difficult to implement for determining member contributions for legacy tiers (i.e., non-PEPRA), optional forms of payment and reserves. For determining member contributions, one emerging practice is to approximate the use of a generational mortality table by the use of a static table with projection of the mortality improvement over a period that is close to the duration of the benefit payments for active members. We would recommend the use of this approximation for determining member contributions for legacy tiers.

We recommend that the mortality table used for determining contributions for General members be updated to a blended table based on the Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females) times 90% for males and 100% for females, projected 20 years with the two-dimensional mortality improvement scale MP-2017, weighted one-third male and two-thirds female. This is based on the proposed valuation mortality table for General members and the actual gender distribution of General members.

We also recommend an update to the mortality table for Safety members to be the Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females) times 75% for males and 85% for females, projected 20 years with the two-dimensional mortality improvement scale MP-2017, weighted 80% male and 20% female. This is based on the proposed mortality table for Safety members and the actual gender distribution for the current Safety members.

We recommend that the mortality tables used for determining optional forms of payment and reserves be updated to the same mortality tables above, except they will still be generationally projected with the two-dimensional MP-2017 projection scale associated with a retirement year of 2021. This will still allow for a generational projection, but results in an administratively feasible amount of factors.

CHART 9: POST-RETIREMENT DEATHS
NON-DISABLED GENERAL MEMBERS
(JULY 1, 2008 THROUGH JUNE 30, 2017)

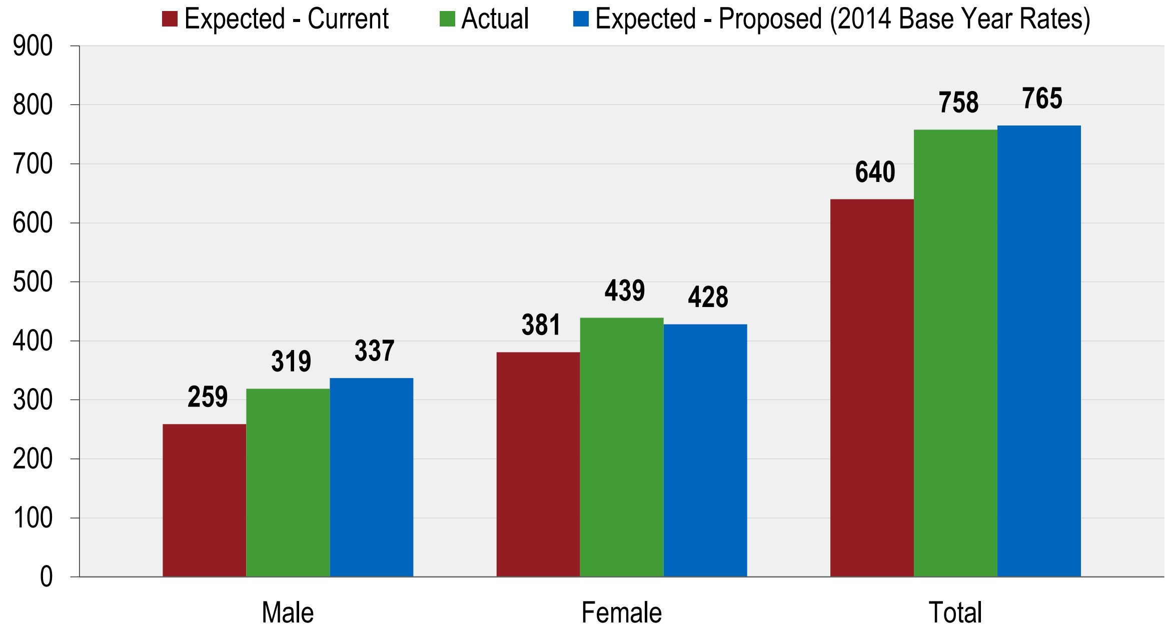


CHART 10: POST-RETIREMENT DEATHS
NON-DISABLED SAFETY MEMBERS
(JULY 1, 2008 THROUGH JUNE 30, 2017)

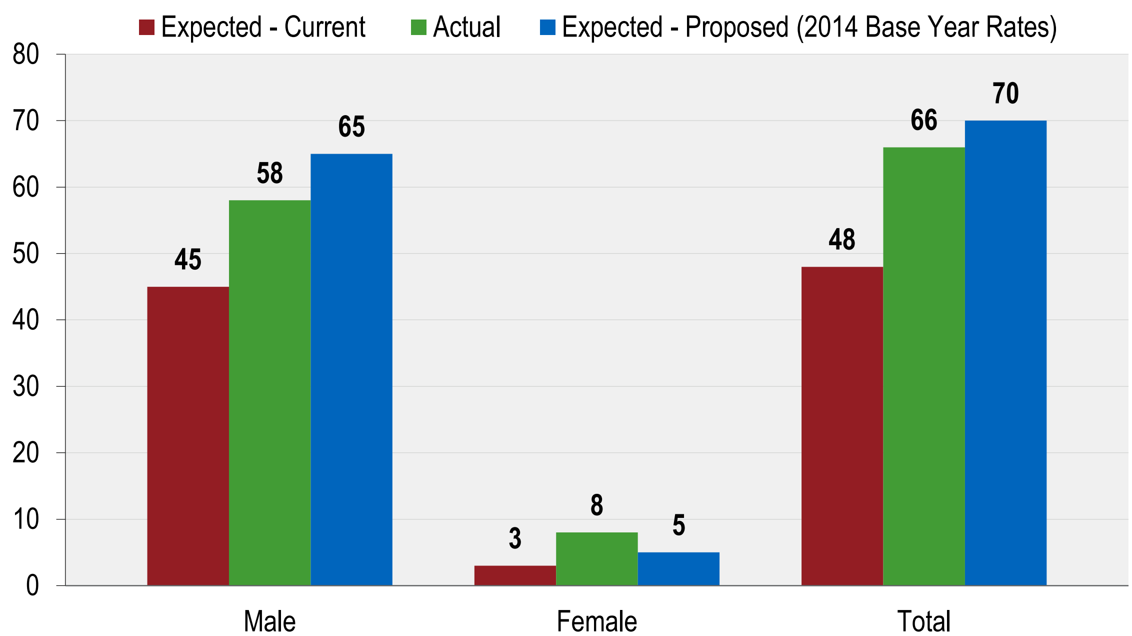


CHART 11: LIFE EXPECTANCIES
NON-DISABLED GENERAL MEMBERS

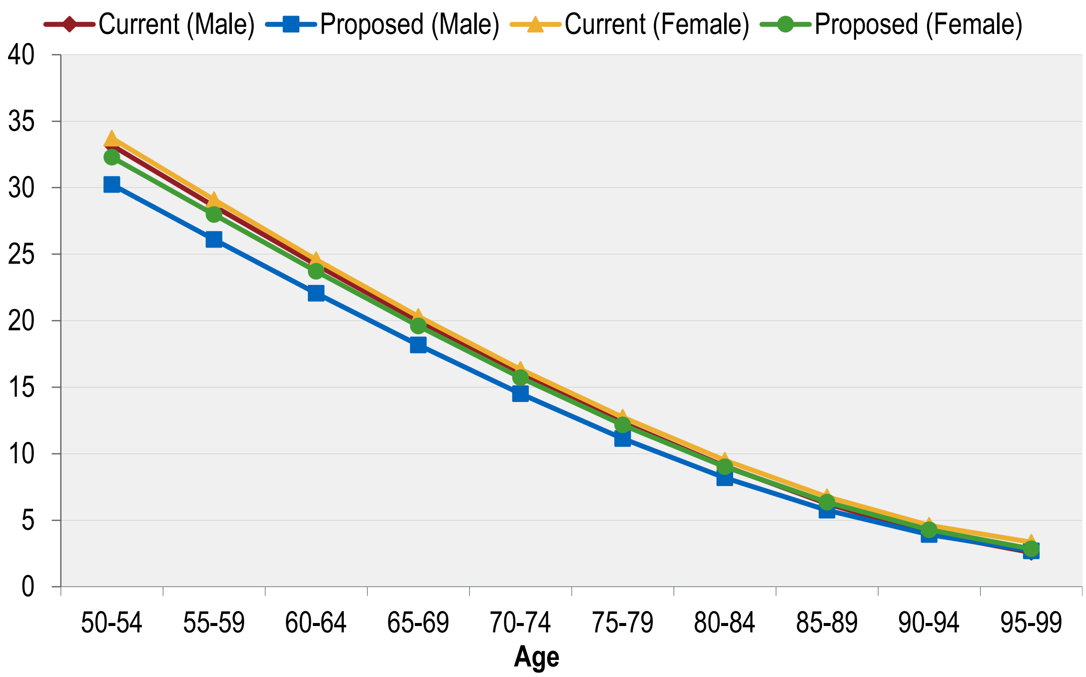
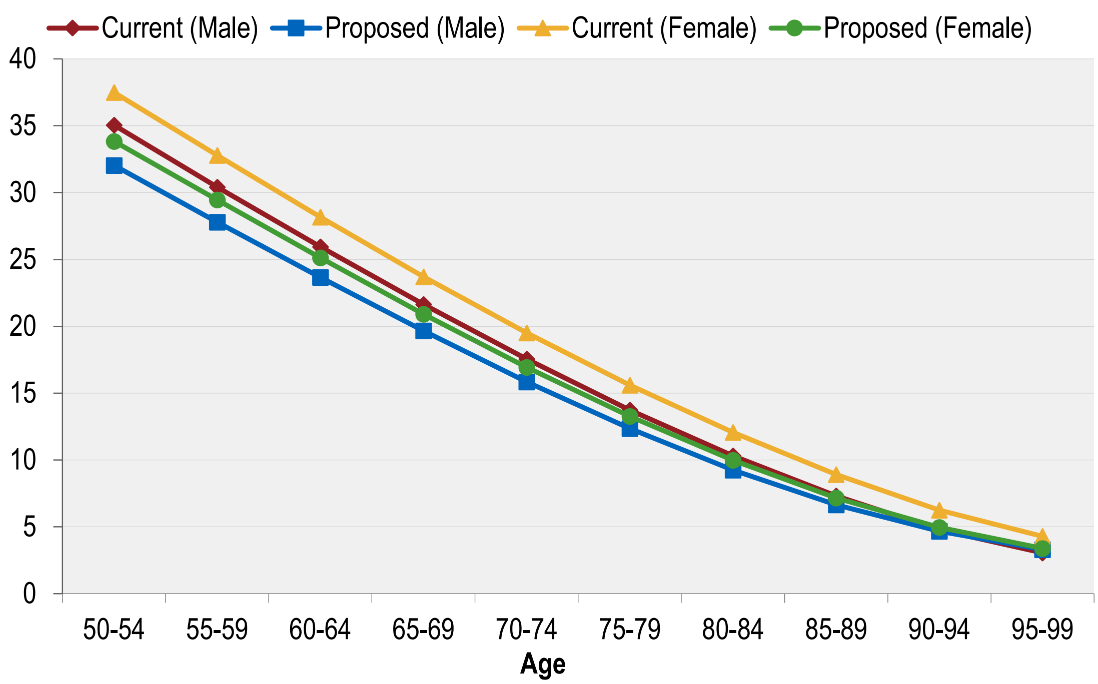


CHART 12: LIFE EXPECTANCIES
NON-DISABLED SAFETY MEMBERS



C. Mortality Rates - Disabled

Since mortality rates for disabled members can vary from those of healthy members, a different mortality assumption is often used. For General members, the table currently being used is the RP-2000 Combined Healthy Mortality Table (separate tables for males and females) projected with Scale BB to 2035 with ages set forward six years for males and set forward eight years for females. For Safety members, the table currently being used is the RP-2000 Combined Healthy Mortality Table (separate tables for males and females) projected with Scale BB to 2035 with ages set forward two years.

The number of actual deaths compared to the number expected under the current and proposed assumptions for the last nine years are as follows:

	General - Disabled			Safety - Disabled		
Gender	Current Expected Deaths	Actual Deaths	Proposed Expected Deaths	Current Expected Deaths	Actual Deaths	Proposed Expected Deaths
Male	47	53	58	44	56	52
Female	69	82	73	2	3	4
Total	**116**	**135**	**131**	**46**	**59**	**56**
Actual / Expected	116%		103%	128%		105%

Based on the actual experience, we recommend updating the current table for General disabled members to the Headcount-Weighted RP-2014 Disabled Retiree Mortality Table (separate tables for males and females) times 85% for males and 100% for females, projected generationally with the two-dimensional mortality improvement scale MP-2017. This will bring the actual to expected ratio to 103%.

However, based on the actual experience, we recommend updating the current table for Safety disabled members to the Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females) times 100% for males and 115% for females, projected generationally with the two-dimensional mortality improvement scale MP-2017. This will bring the actual to expected ratio to 105%.

Chart 13 compares actual to expected deaths for disabled General members under both the current and proposed assumptions over the past nine years. Experience shows that there were more deaths than predicted by the current table.

Chart 14 has the same comparison for Safety members. Experience shows that there were more deaths than predicted by the current table.

Chart 15 shows the life expectancies under the current and the proposed tables for General members.

Chart 16 shows the same information for Safety members.

CHART 13: POST-RETIREMENT DEATHS DISABLED GENERAL MEMBERS

(JULY 1, 2008 THROUGH JUNE 30, 2017)

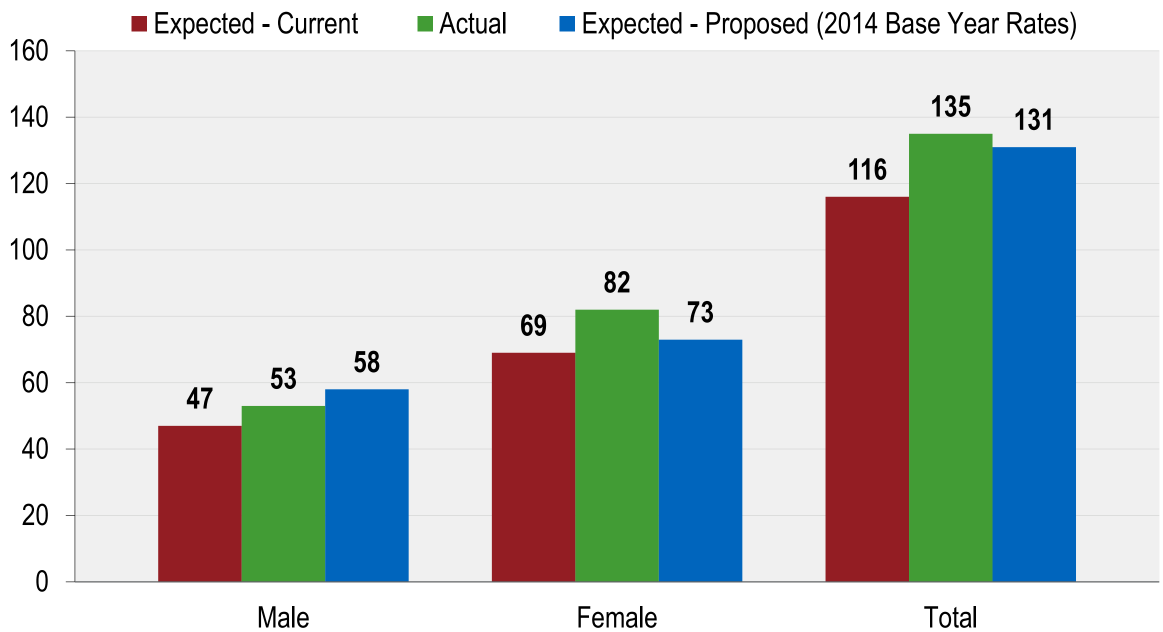


CHART 14: POST-RETIREMENT DEATHS DISABLED SAFETY MEMBERS

(JULY 1, 2008 THROUGH JUNE 30, 2017)

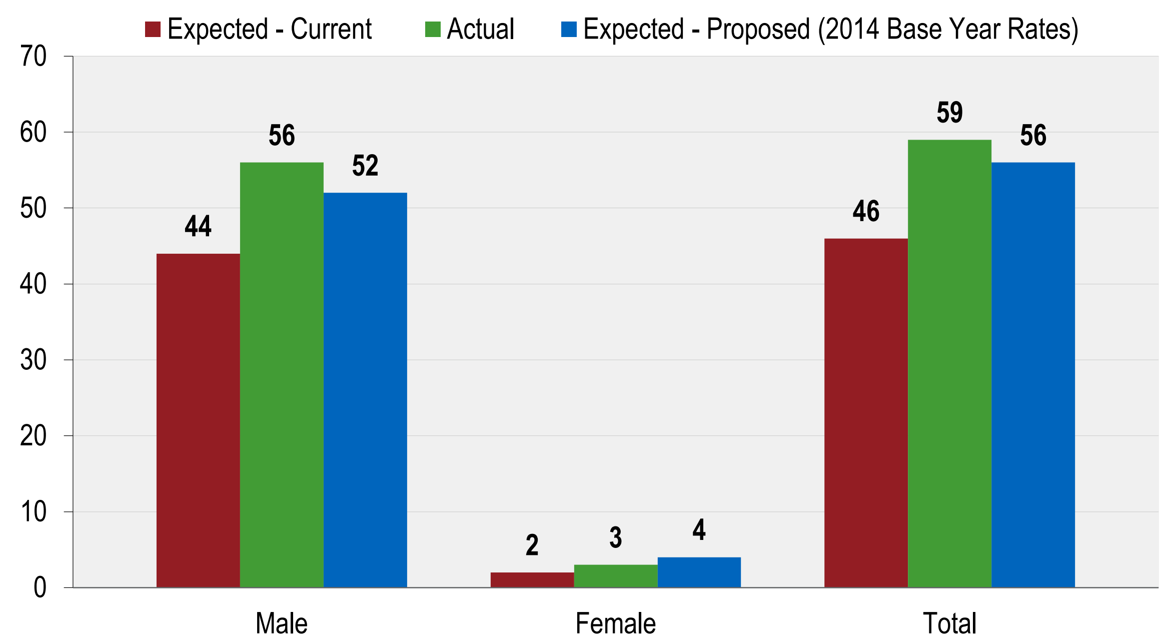


CHART 15: LIFE EXPECTANCIES
DISABLED GENERAL MEMBERS

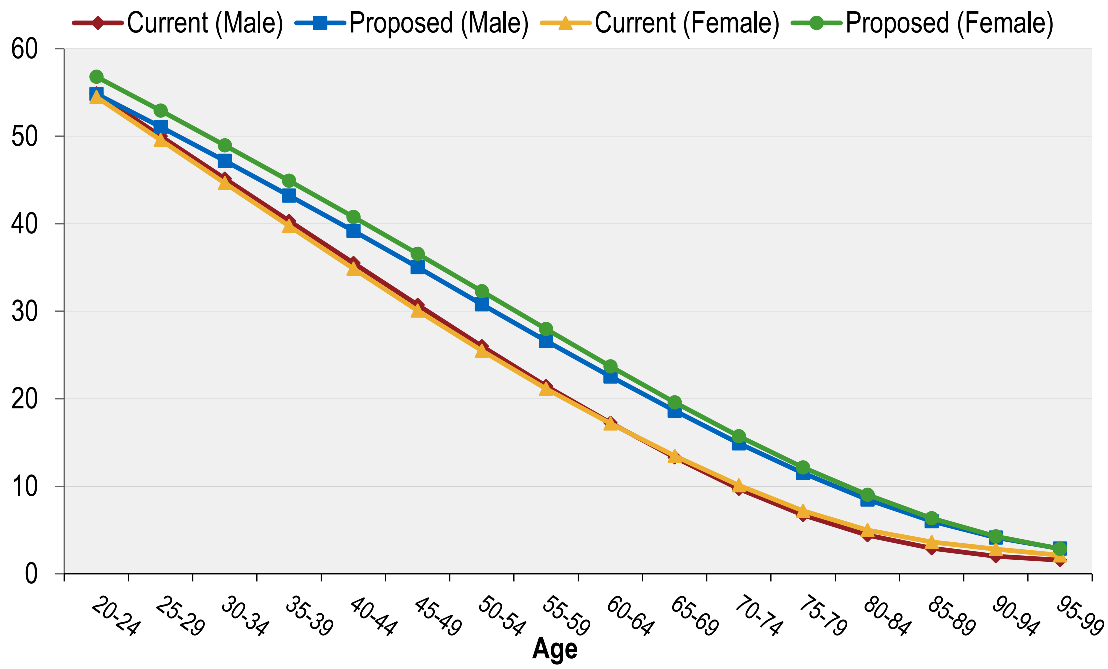
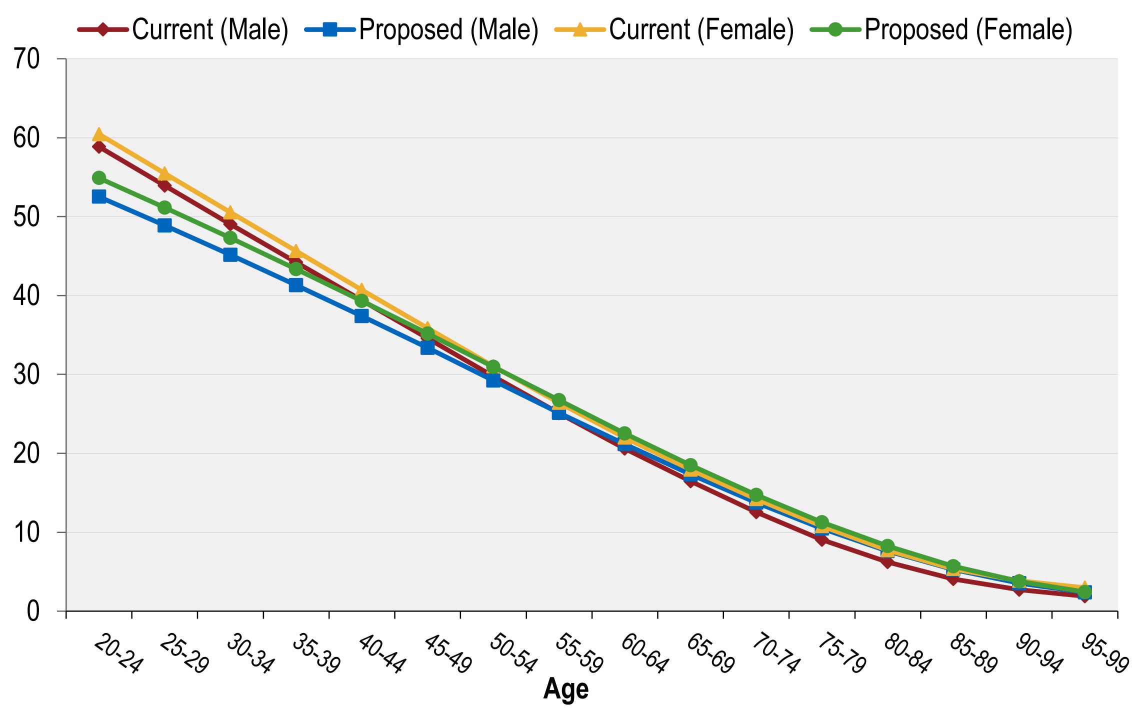


CHART 16: LIFE EXPECTANCIES
DISABLED SAFETY MEMBERS



D. Termination Rates

Termination rates include all terminations for reasons other than death, disability, or retirement. Under the current assumptions there is an overall incidence of termination assumed, combined with an assumption that a member will choose between a refund of contributions and a deferred vested benefit based on which option is more valuable. With this study, we continue to recommend that this same assumption structure be used.

Currently, assumed termination rates are a function of years of service. We continue to believe that termination rates are strongly correlated with years of service. Therefore, we have maintained the current termination assumption structure as a function of years of service.

The termination experience over the last three years for General and Safety members is shown by years of service in the following tables. Please note that we have excluded any members that were eligible for retirement. We also show the current and proposed assumptions.

Rates of Termination – General

	Termination Rate (%)		
Years of Service	**Current Rate**	**Observed Rate**	**Proposed Rate**
Less than 1	14.00	14.31	14.00
1	10.00	10.15	10.00
2	8.00	9.01	8.25
3	7.00	8.45	7.25
4	6.00	5.43	6.00
5	4.00	7.23	5.00
6	3.75	5.10	4.00
7	3.50	3.43	3.50
8	3.50	2.80	3.50
9	3.25	4.47	3.25
10	3.25	3.61	3.25
11	3.00	1.42	3.00
12	3.00	4.33	3.00
13	2.75	2.34	2.75
14	2.75	4.08	2.75
15	2.50	1.97	2.50
16	2.50	3.24	2.50
17	2.25	3.49	2.25
18	2.00	1.57	2.00
19	2.00	1.74	2.00
20 or more	2.00	2.84	2.00

Rates of Termination – Safety

	Termination Rate (%)		
Years of Service	Current Rate	Observed Rate	Proposed Rate
Less than 1	10.00	13.73	11.00
1	6.00	5.70	6.00
2	5.50	6.86	5.75
3	5.00	3.23	4.50
4	4.00	4.80	4.25
5	2.75	3.79	3.00
6	2.50	2.42	2.50
7	2.00	2.76	2.25
8	1.80	1.75	1.80
9	1.60	1.76	1.60
10	1.40	3.52	1.40
11	1.20	0.00	1.20
12	1.00	3.39	1.00
13	0.95	0.67	0.95
14	0.90	0.66	0.90
15	0.85	0.00	0.85
16	0.80	1.22	0.80
17	0.75	0.70	0.75
18	0.70	0.00	0.70
19	0.65	0.00	0.65
20 or more	0.60	0.00	0.60

It is important to note that not every service category has enough exposures and/or decrements such that the results in that category are statistically credible even if we look at six years' worth of experience. This is mainly the case at the highest service categories since most members in those categories are eligible to retire and so have been excluded from our review of this experience.

Chart 17 compares actual to expected terminations over the past three years for both the current and proposed assumptions for General members.

Chart 18 graphs the same information as Chart 17, but for Safety members.

Chart 19 shows the actual termination rates over the past three years compared to the current and proposed assumptions for General members.

Chart 20 shows the same information as Chart 19, but for Safety members.

Based upon the recent experience, the termination rates for both General and Safety members have been increased during the early years of employment at most service categories. Overall, for both General and Safety members, the proposed termination rates are higher than those under the current assumptions.

It is our understanding that General Tier 2 COLA members can elect a refund of all or a portion of their Tier 2 COLA member contributions and forgo the Tier 2 COLA upon retirement. Based on the data for the year ending June 30, 2017, about 39% of total General Tier 2 COLA member contributions were refunded for retiring members. However, since we only received the actual experience regarding the refunded General Tier 2 COLA contributions for one year, we will continue to conservatively assume that all members retiring with the Tier 2 COLA will elect to have the COLA applied to their benefit in lieu of a refund. We will continue to monitor this as we obtain more data in the future.

We will also continue to assume that termination rates are zero at any age where members are assumed to retire. In other words, at those ages, members will either retire in accordance with the retirement rate assumptions or continue working, rather than terminate and defer their benefit.

CHART 17: ACTUAL NUMBER OF TERMINATIONS COMPARED TO EXPECTED – GENERAL MEMBERS

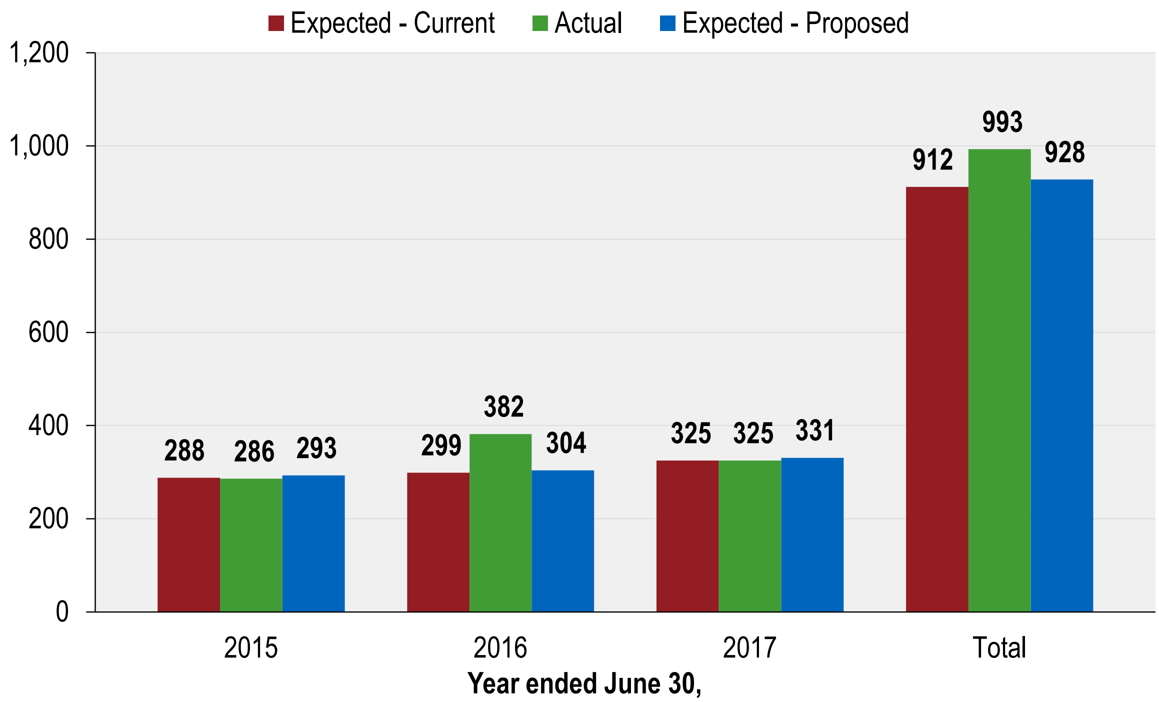


CHART 18: ACTUAL NUMBER OF TERMINATIONS COMPARED TO EXPECTED – SAFETY MEMBERS

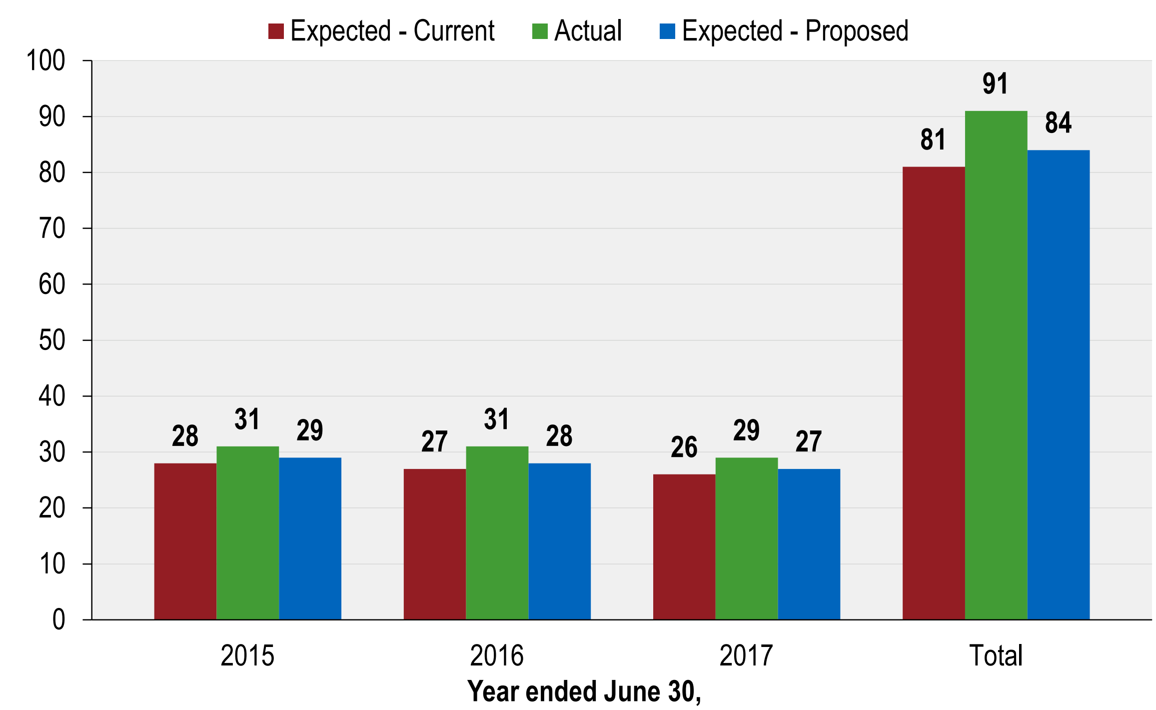


CHART 19: TERMINATION RATES – GENERAL MEMBERS

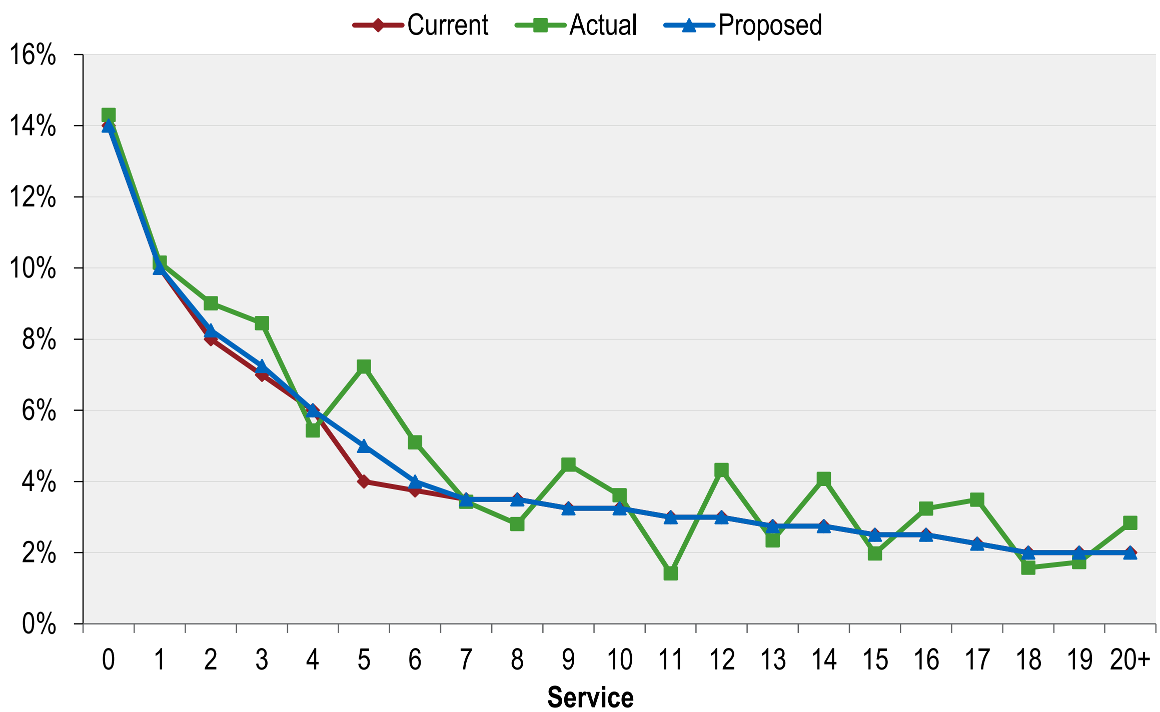
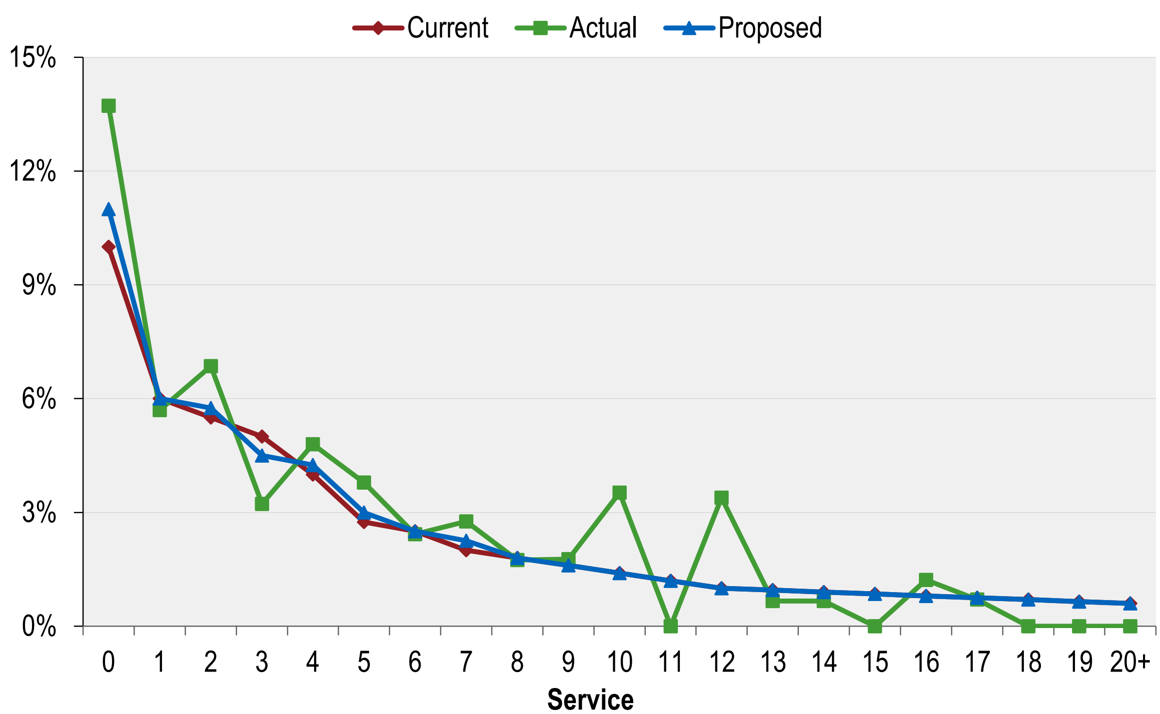


CHART 20: TERMINATION RATES – SAFETY MEMBERS



E. Disability Incidence Rates

When a member becomes disabled, he or she may be entitled to at least a 50% of pay pension (service connected disability), or a pension that depends upon the member's years of service (non-service connected disability). The following summarizes the actual incidence of combined service and non-service connected disabilities over the past three years compared to the current and proposed assumptions for both service connected and non-service connected disability incidence:

Rates of Disability Incidence - General

	Disability Incidence Rate* (%)		
Age	Current Rate	Observed Rate	Proposed Rate
20 – 24	0.01	0.00	0.01
25 – 29	0.02	0.00	0.02
30 – 34	0.05	0.00	0.04
35 – 39	0.10	0.00	0.08
40 – 44	0.15	0.08	0.13
45 – 49	0.25	0.14	0.20
50 – 54	0.35	0.17	0.25
55 – 59	0.45	0.24	0.35
60 – 64	0.60	0.31	0.45
65 – 69	0.75	0.32	0.60
70 – 74	1.00	0.00	0.75

* *Total rate for service connected and non-service connected disabilities.*

Rates of Disability Incidence - Safety

	Disability Incidence Rate* (%)		
Age	Current Rate	Observed Rate	Proposed Rate
20 – 24	0.05	0.00	0.05
25 – 29	0.15	0.00	0.15
30 – 34	0.30	0.29	0.30
35 – 39	0.40	0.56	0.40
40 – 44	0.70	0.38	0.60
45 – 49	1.00	0.90	1.00
50 – 54	1.80	1.12	1.50
55 – 59	3.60	3.55	3.60
60 – 64	6.00	8.24	7.00

* *Total rate for service connected and non-service connected disabilities.*

Chart 21 compares the actual number of service connected and non-service connected disabilities over the past three years to that expected under both the current and proposed assumptions. The proposed disability rates were adjusted to reflect the past three years' experience. Overall, there are decreases in the rates proposed for both General and Safety members.

Chart 22 shows actual disability incidence rates, compared to the assumed and proposed rates for General members. Since 15% of disabled General members received a service connected disability, we recommend reducing the current assumption from 35% to 25% of disabilities being entitled to a service connected disability retirement. The remaining 75% of disabled General members are assumed to receive a non-service connected disability retirement.

Chart 23 shows the same information as Chart 21, but for Safety members. Since 90% of disabled Safety members received a service connected disability, we recommend maintaining the current assumption that 90% of disabilities will receive a service connected disability retirement. The remaining 10% of disabled Safety members are assumed to receive a non-service connected disability retirement.

CHART 21: ACTUAL NUMBER OF DISABILITIES COMPARED TO EXPECTED

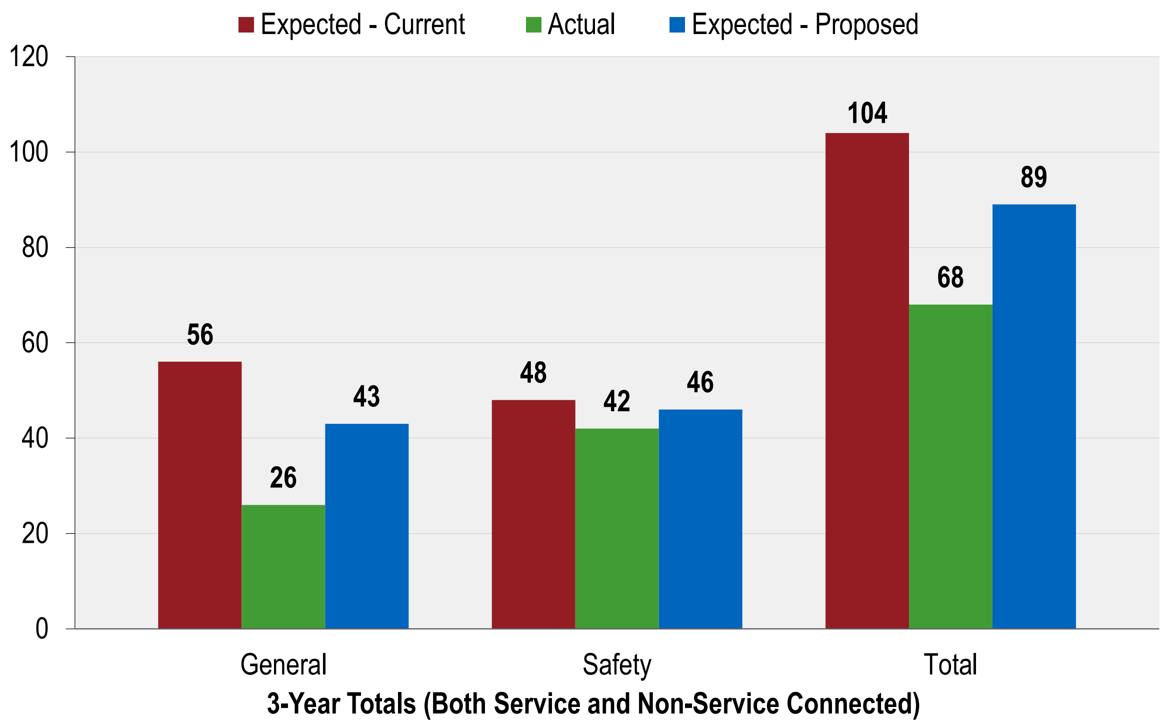


CHART 22: DISABILITY INCIDENCE RATES – GENERAL MEMBERS

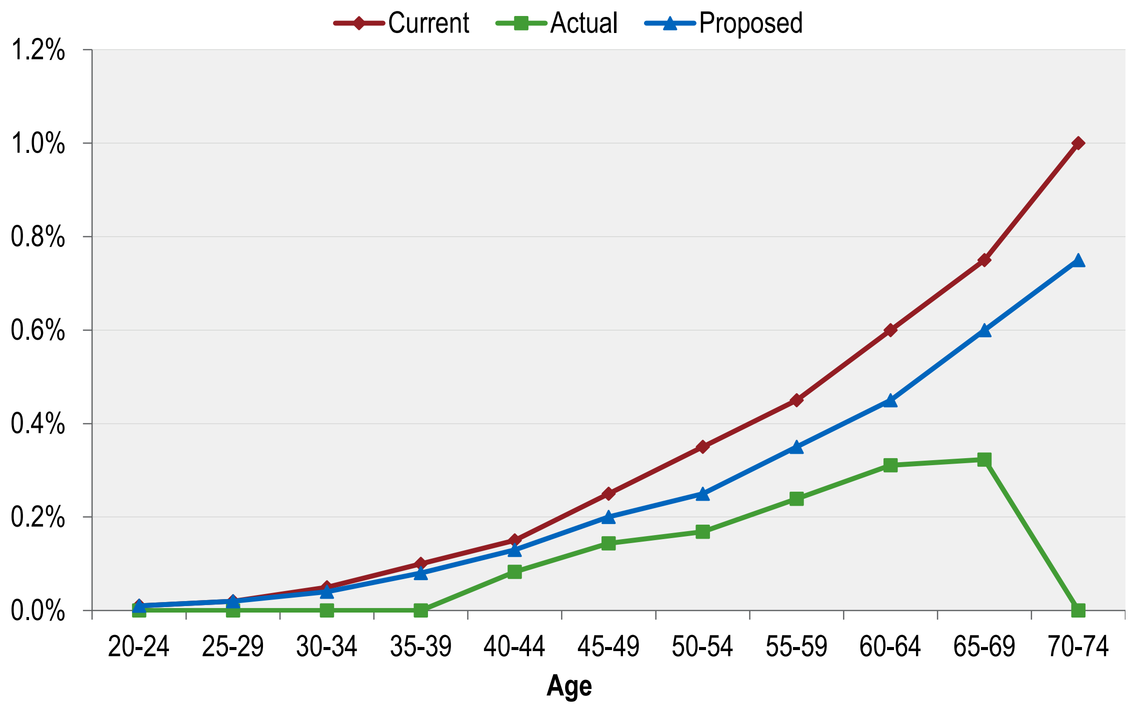
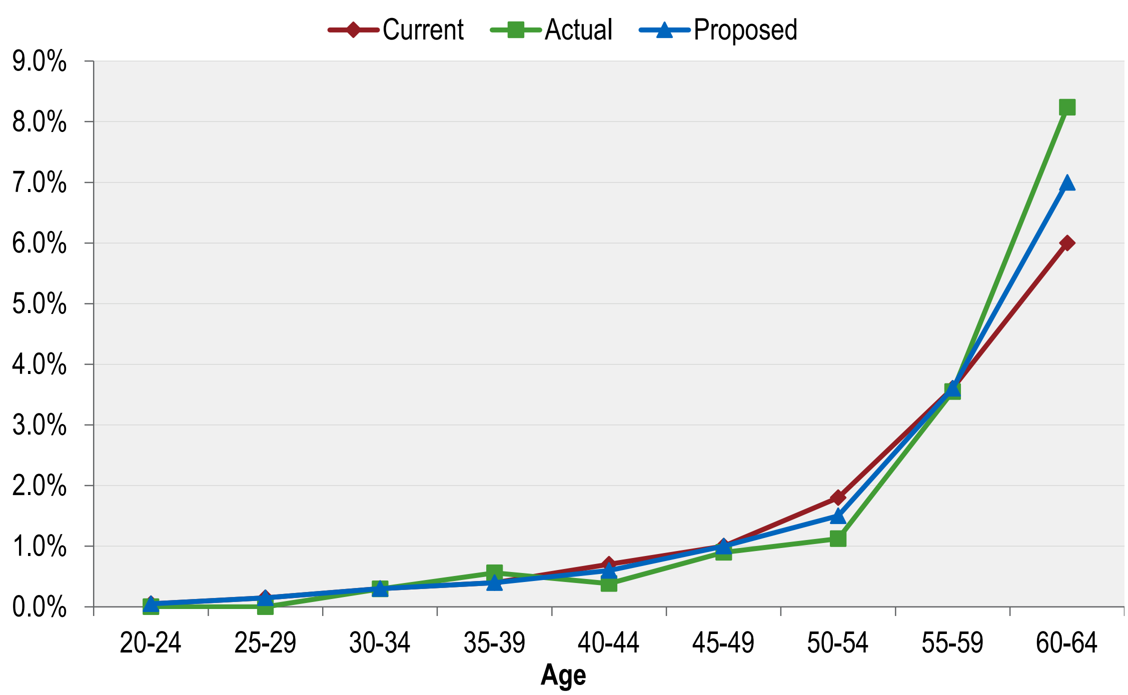


CHART 23: DISABILITY INCIDENCE RATES – SAFETY MEMBERS



F. In-Service Redemptions

In 1998, the Board of Retirement, in the course of actions related to the Ventura Settlement, determined that several additional pay elements should be included as Earnable Compensation. These additional pay elements fall into two categories:

- Ongoing Pay Elements – Those that are expected to be received relatively uniformly over a member's employment years; and

- In-Service Redemption Elements – Those that are expected to be received only during the member's final average earnings pay period.

The first category is recognized in the actuarial calculations by virtue of being included in the current pay of active members. The second category requires a separate actuarial assumption to anticipate its impact on a member's retirement benefit.

In this study, we have collected data for the last three years to estimate in-service redemptions for non-PEPRA active members as a percentage of final average pay. The results are summarized in the following table:

	Actual Average In-Service Redemptions for Non-PEPRA Members		
Year Ending June 30	**General Tier 1**	**General Tier 2**	**Safety**
2015	9.16%	3.89%	7.29%
2016	5.61%	3.76%	5.12%
2017	7.27%	3.69%	7.59%
Average	**7.42%**	**3.77%**	**6.53%**
Current Assumption	7.50%	3.50%	7.25%
Proposed Assumption	7.50%	3.50%	7.00%

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.

Based on the data in the above table, the in-service redemption assumption has been maintained for General Tier 1 and General Tier 2 members and decreased for Safety members. For General Tier 2, we maintained the assumption based on a combination of the experience during the current and prior three-year periods.

G. Average Entry Age (For Non-PEPRA Member Contributions)

The assumption for average entry age of non-PEPRA active members is used in determining the rate at which members who were hired after November 1974 contribute. In addition, this only applies to non-PEPRA active members that are not contributing fifty percent of the Normal Cost. The current assumption is age 35 for General members and age 27 for Safety members. The actual average entry ages for all active members as of June 30, 2017 is age 34.6 for General members and age 27.0 for Safety members.

Based on this experience we recommend that the average entry age for General members used for determining member contribution rates be maintained at age 35. For Safety members we recommend that the average entry age used for determining member contribution rates be maintained at age 27.

V. Cost Impact

The tables below show the changes in the employer and member contribution rates due to the proposed assumption changes as if they were applied in the June 30, 2017 actuarial valuation. These estimated impacts reflect the 50/50 sharing of Normal Cost for non-PEPRA tiers. If all of the proposed assumption changes (both economic and demographic) were implemented, the Plan's average employer rate would have increased by 1.54% of payroll. The average member rate would have increased by 0.32% of payroll. The Plan's UAAL would have increased by $109 million.

Employer Contribution Rate Impact (% of Payroll)								
Contributions	General Tier 1	General Tier 2	PEPRA General Tier 2	General Tier 2C	PEPRA General Tier 2C	Safety	PEPRA Safety	Overall
Normal Cost	-0.60%	0.39%	0.39%	0.77%	0.76%	0.12%	0.33%	0.48%
UAAL	1.13%	1.04%	1.04%	1.13%	1.13%	0.96%	0.96%	1.06%
Total	**0.53%**	**1.43%**	**1.43%**	**1.90%**	**1.89%**	**1.08%**	**1.29%**	**1.54%**

Total Employer Contribution Rate Impact (Estimated Annual Dollar Amounts in Thousands)								
Contributions	General Tier 1	General Tier 2	PEPRA General Tier 2	General Tier 2C	PEPRA General Tier 2C	Safety	PEPRA Safety	Overall
Total	$36	$3,033	$698	$4,031	$1,522	$1,578	$244	$11,142

Member Contribution Rate Impact (% of Payroll)								
Contributions	General Tier 1	General Tier 2	PEPRA General Tier 2	General Tier 2C	PEPRA General Tier 2C	Safety	PEPRA Safety	Overall
Total	-0.54%	0.39%	0.39%	0.39%	0.39%	0.10%	0.33%	0.32%

Member Contribution Rate Impact (Estimated Annual Dollar Amounts in Thousands)								
Contributions	General Tier 1	General Tier 2	PEPRA General Tier 2	General Tier 2C	PEPRA General Tier 2C	Safety	PEPRA Safety	Overall
Total	-$39	$820	$189	$814	$309	$129	$62	$2,284

Considered separately, the changes in the economic assumptions accounted for about three-quarters of the overall cost impact to the plan.

In particular, if all of the proposed economic assumptions changes were implemented, the average employer rate would have increased by 1.04% of payroll and the average member rate would have increased by 0.38% of payroll. Of the various economic assumption changes, the most significant cost impact is from the investment return assumption change.

Furthermore, if all of the proposed demographic assumption changes were implemented, the average employer rate would have increased by 0.50% of payroll. The average member rate would have decreased by 0.06% of payroll. Of the various demographic assumption changes, the most significant cost impact are from the mortality assumption change for General membership and retirement assumption change for Safety membership.

Therefore, as noted above, the estimated cost impact of all proposed assumption changes (both economic and demographic) is 1.54% of payroll for the average employer rate, where the Normal Cost rate increased by 0.48% and the UAAL amortization rate increased by 1.06%. The average member rate would have increased by 0.32% of payroll.

Appendix A: Current Actuarial Assumptions

Economic Assumptions

Net Investment Return:	7.50%, net of investment and administrative 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 3.00% maximum change per year for both PEPRA and Non-PEPRA General Tier 1 and both PEPRA and Non-PEPRA Safety. For both PEPRA and non-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.
Payroll Growth:	Inflation of 3.00% per year plus “across the board” real salary increases of 0.50% per year.
Increases in 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.

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

Demographic Assumptions

Mortality Rates – Healthy

- **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

- **Safety Members:** RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2035 set back three years

Mortality Rates – Disabled

- **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

- **Safety Members:** RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2035 set forward two years

Mortality Rates – Beneficiaries

- **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

- **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

- **Safety Members:** RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2035 set back three years weighted 80% male and 20% female

Mortality Rates Before Retirement

	Rate (%)			
	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-service connected related.

Disability Incidence Rates

	Rate (%)	
Age	General[1]	Safety[2]
20	0.02	0.01
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 service connected disabilities and the other 65% are assumed to be non-service connected disabilities.*

2 *90% of Safety disabilities are assumed to be service connected disabilities and the other 10% are assumed to be non-service connected disabilities.*

Withdrawal Rates[1]

	Rate (%)	
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

	Rate (%)			
	General		Safety	
Age	Tier 1 and 2	PEPRA Tier 1 and 2	Non-PEPRA	PEPRA
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 current and future deferred vested members, retirement age assumptions are as follows: General Age: 59 Safety Age: 54 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.
Form of Payment:	All members are assumed to elect the unmodified option at retirement.
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: General Tier 1 7.50% General Tier 2 3.50% Safety 7.25% 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.
Average Entry Age for Member Contribution Rates:	For non-PEPRA members hired after November 1974 who are not contributing fifty percent of Normal Cost, they will pay a contribution corresponding to a General and Safety member hired at entry age 35 and 27, respectively.
Methodology for use in Setting Entry Age for use in Actuarial Cost Method:	Age at member's hire date.

Appendix B: Proposed Actuarial Assumptions

Economic Assumptions

Net Investment Return:	7.25%, net of investment and administrative expenses.
Member Contribution Crediting Rate:	2.75% (actual increase is based on projected long term ten-year Treasury rate).
Consumer Price Index:	Increase of 2.75% per year; retiree COLA increases due to CPI are subject to a 3.00% maximum change per year for both PEPRA and Non-PEPRA General Tier 1 and both PEPRA and Non-PEPRA Safety. For both PEPRA and non-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.
Payroll Growth:	Inflation of 2.75% per year plus “across the board” real salary increases of 0.50% per year.
Increases in Internal Revenue Code Section 401(a)(17) Compensation Limit:	Increase of 2.75% per year from the valuation date.
Increase in Section 7522.10 Compensation Limit:	Increase of 2.75% per year from the valuation date.

Individual Salary Increases

Annual Rate of Compensation Increase (%) **Inflation:** 2.75% 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	7.00	8.50
1	5.25	6.50
2	4.00	5.00
3	3.50	4.25
4	2.75	3.75
5	2.25	3.50
6	2.00	2.50
7	1.75	1.50
8	1.50	1.25
9	1.25	1.00
10	1.00	0.95
11	0.95	0.90
12	0.90	0.85
13	0.85	0.80
14	0.80	0.70
15	0.75	0.70
16	0.70	0.70
17	0.65	0.70
18	0.60	0.70
19	0.55	0.70
20 and Over	0.50	0.70

Demographic Assumptions

Mortality Rates – Healthy

- **General Members:** Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females) times 90% for males and 100% for females, projected generationally with the two-dimensional mortality improvement scale MP-2017

- **Safety Members:** Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females) times 75% for males and 85% for females, projected generationally with the two-dimensional mortality improvement scale MP-2017

Mortality Rates – Disabled

- **General Members:** Headcount-Weighted RP-2014 Disabled Retiree Mortality Table (separate tables for males and females) times 85% for males and 100% for females, projected generationally with the two-dimensional mortality improvement scale MP-2017

- **Safety Members:** Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females) times 100% for males and 115% for females, projected generationally with the two-dimensional mortality improvement scale MP-2017

Mortality Rates – Beneficiaries

- **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

Pre-Retirement Mortality Rates

- **General and Safety Members:** Headcount-Weighted RP-2014 Employee Mortality Table (separate tables for males and females) times 80%, projected generationally with the two-dimensional scale MP-2017

The RP-2014 mortality tables and adjustments as shown above reflect the mortality experience as of the measurement date. The generational projection is a provision for future mortality improvement.

Member Contribution Rates

- **General Members:** Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females) times 90% for males and 100% for females, projected 20 years with the two-dimensional mortality improvement scale MP-2017, weighted one-third male and two-thirds female

- **Safety Members:** Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females) times 75% for males and 85% for females, projected 20 years with the two-dimensional mortality improvement scale MP-2017, weighted 80% male and 20% female

Mortality Rates Before Retirement

	Rate (%)	
Age	**Male**	**Female**
25	0.05	0.02
30	0.05	0.02
35	0.05	0.03
40	0.06	0.04
45	0.10	0.07
50	0.17	0.11
55	0.27	0.17
60	0.45	0.24
65	0.78	0.36
70	1.27	0.59

Note that generational projections beyond the base year (2014) are not reflected in the above mortality rates. All pre-retirement deaths are assumed to be non-service connected related.

Disability Incidence Rates

	Rate (%)	
Age	**General**[1]	**Safety**[2]
20	0.01	0.05
25	0.02	0.11
30	0.03	0.24
35	0.06	0.36
40	0.11	0.52
45	0.17	0.84
50	0.23	1.30
55	0.31	2.76
60	0.41	5.64
65	0.54	2.80
70	0.69	0.00

1 *25% of General disabilities are assumed to be service connected disabilities and the other 75% are assumed to be non-service connected disabilities.*

2 *90% of Safety disabilities are assumed to be service connected disabilities and the other 10% are assumed to be non-service connected disabilities.*

Withdrawal Rates[1]

	Rate (%)	
Years of Service	General	Safety
Less than 1	14.00	11.00
1	10.00	6.00
2	8.25	5.75
3	7.25	4.50
4	6.00	4.25
5	5.00	3.00
6	4.00	2.50
7	3.50	2.25
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

	Rate (%)			
	General Tier 1 and 2		Safety Non-PEPRA	
Age	Less than 30 Years of Service	30 or More Years of Service	Less than 30 Years of Service	30 or More Years of Service
Under 50	0.00	50.00	1.00	1.00
50	2.00	2.00	2.00	2.00
51	2.00	2.00	2.25	2.25
52	2.50	2.50	2.50	2.50
53	3.00	3.00	3.50	3.50
54	3.25	3.25	13.00	13.00
55	4.75	4.75	20.00	30.00
56	5.00	5.00	20.00	30.00
57	5.50	5.50	18.00	27.00
58	7.00	7.00	22.00	33.00
59	7.50	7.50	22.00	33.00
60	10.50	15.75	25.00	37.50
61	14.00	21.00	28.00	42.00
62	25.00	37.50	35.00	45.00
63	20.00	30.00	35.00	45.00
64	20.00	30.00	35.00	45.00
65	28.00	42.00	100.00	100.00
66	35.00	52.50	100.00	100.00
67	30.00	45.00	100.00	100.00
68	30.00	45.00	100.00	100.00
69	22.50	22.50	100.00	100.00
70	22.50	22.50	100.00	100.00
71	20.00	20.00	100.00	100.00
72	20.00	20.00	100.00	100.00
73	20.00	20.00	100.00	100.00
74	20.00	20.00	100.00	100.00
75	100.00	100.00	100.00	100.00

Retirement Rates (continued)

	Rate (%)	
Age	**General PEPRA Tier 1 and 2**	**Safety PEPRA**
50	0.00	4.00
51	0.00	2.25
52	1.50	3.50
53	1.50	5.50
54	2.00	13.00
55	4.00	20.00
56	4.50	20.00
57	5.00	18.00
58	5.50	18.00
59	6.00	25.00
60	9.00	25.00
61	11.00	25.00
62	22.50	40.00
63	20.00	40.00
64	18.00	40.00
65	20.00	100.00
66	30.00	100.00
67	30.00	100.00
68	25.00	100.00
69	35.00	100.00
70	50.00	100.00
71	50.00	100.00
72	50.00	100.00
73	50.00	100.00
74	50.00	100.00
75	100.00	100.00

Retirement Age and Benefit for Deferred Vested Members:	For current and future deferred vested members, retirement age assumptions are as follows: General Age: 59 Safety Age: 53 We assume that 45% and 60% of future General and Safety deferred vested members, respectively, will continue to work for a reciprocal employer. For reciprocals, we assume 3.75% and 3.95% compensation increases per annum for General and Safety deferred vested members, respectively.
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.
Form of Payment:	All members are assumed to elect the unmodified option at retirement.
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:	Male retirees are 3 years older than their spouses, and female retirees are 2 years younger 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: General Tier 1 7.50% General Tier 2 3.50% Safety 7.00% 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.
Average Entry Age for Member Contribution Rates:	For non-PEPRA members hired after November 1974 who are not contributing fifty percent of Normal Cost, they will pay a contribution corresponding to a General and Safety member hired at entry age 35 and 27, respectively.
Methodology for use in Setting Entry Age for use in Actuarial Cost Method:	Member's age at valuation date minus years of service.

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VCERA
VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

June 4, 2018

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

SUBJECT: SEGAL CONTRACT RENEWAL FOR ACTUARIAL SERVICES, AND PROPOSED SCHEDULE OF FIXED FEES AND HOURLY BILLING RATES

Dear Board Members:

Please find the attached renewal for actuarial services from Segal, outlining the fees for the next three years, should VCERA choose to extend the original agreement for that period. I have also provided Segal's original Agreement for Actuarial Services for reference.

RECOMMENDATION: Review and approve the provided Proposed Schedule of Fixed Fees and Hourly Billing Rates, and authorize the Retirement Administrator to execute the renewal on behalf of the Board.

I would be happy to answer any questions you may have at the June 4, 2018 meeting.

Sincerely,

Linda Webb
Retirement Administrator

Attachments

Segal Consulting

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

Paul Angelo, FSA, MAAA, FCA, EA
Senior Vice President & Actuary
pangelo@segalco.com

May 25, 2018

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

Re: Proposed Schedule of Fixed Fees and Hourly Billing Rates

Dear Linda:

This letter presents our proposed schedule of fixed valuation fees and hourly billing rates for our services to VCERA, commencing July 1, 2018. As you know, our initial April 1, 2003 Actuarial Services Agreement with VCERA provided for guaranteed rates for three years. For your reference, that agreement provides that "For later years Segal will present a schedule of current rates for review by VCERA prior to the beginning of each year. These rates would go into effect only upon mutual agreement between VCERA and Segal."

Our November 12, 2015 letter proposed fixed fees and hourly billing rates through June 30, 2018. As an aid to future budgeting, this letter proposes three years of fixed fees and hourly billing rates commencing July 1, 2018. We understand that the Board may wish to approve the rates shown only for some shorter period.

Fixed Fee Valuation and Retainer Services

Task	Current: 2017-2018	Proposed: 2018-2019	Proposed: 2019-2020	Proposed: 2020-2021
Actuarial Valuation (includes one meeting)	$60,000	$61,000	$62,000	$63,000
GASB 67 Valuation	$13,000	$13,000	$13,000	$13,000
GASB 68 Valuation	$19,000	$19,000	$19,000	$19,000
June 30, 2017 & June 30, 2020 Experience Study (includes one meeting)	$45,000			$48,000
General Consulting Services	Time Charges			

The increase in the fee for the experience study is based on actual time charges for this work for the last two studies, both of which exceeded $50,000.

Hourly Rates for Additional Services

The table below shows the current rates and the rates we are proposing effective July 1, 2018. These new rates are generally the same as for our other similar California public sector retirement plan clients.

Class of Personnel	Current: July 2017 to June 2018	Proposed: July 2018 to June 2019	Proposed: July 2019 to June 2020	Proposed: July 2020 to June 2021
Principal Actuaries (Angelo)	$510	$525	$540	$550
Reviewing Actuaries	$490	$505	$520	$530
Supervising Actuaries (Monroe)	$470	$485	$500	$510
Senior Actuarial Analysts	$300 - $460	$315 - $475	$330 - $490	$340 - $500
Actuarial Analysts	$200 - $290	$215 - $305	$230 - $320	$240- $330
Compliance Consultant	$470	$485	$500	$510
Clerical	No charge	No charge	No charge	No charge

Our signature on the attached agreement renewal form represents our agreement with the proposed fees and a continuation of the rest of the original contract terms as modified by the First and Second Amendments to the Actuarial Services Agreement.

Thank you very much for your consideration of this matter. We greatly appreciate our relationship with you, your staff, and your Board. Please let us know if you need any additional information.

Cordially,

Paul Angelo

JZM/
Attachment

Agreement Renewal

The fees described in the Proposed Schedule of Fixed Fees and Hourly Billing Rates letter dated May 28, 2018 shall be effective as of July 1, 2018. All other terms of the original Actuarial Services Agreement as modified by the First and Second Amendments to the Actuarial Services Agreement between VCERA and Actuary shall remain in full force and effect.

EXECUTED AND AGREED TO by the parties by their duly authorized representatives:

THE SEGAL COMPANY	VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
By: ______________________ PAUL ANGELO Senior Vice President & Actuary	By: ______________________ LINDA WEBB Retirement Administrator
Dated: ______________________	Dated: ______________________

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ACTUARIAL SERVICES AGREEMENT

between

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

and

THE SEGAL COMPANY

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ACTUARIAL SERVICES AGREEMENT

between

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

and

THE SEGAL COMPANY

This Agreement is made and entered into as of April 1st, 2003 in Ventura, California, by and between the VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION (hereinafter referred to as "VCERA") and The Segal Company (hereinafter referred to as "ACTUARY").

WHEREAS, the VCERA was created pursuant to the County Employees Retirement Law of 1937 (hereinafter referred to as the "'37 ACT") and is administered by the Board of Trustees (hereinafter referred to as the "BOARD");

WHEREAS, pursuant to Government Code section 31453, the Board, has a duty and a need to engage the services of an actuary;

WHEREAS, ACTUARY warrants and represents that it meets the standards of a qualified actuary under the provision of the Employee Retirement Income Security Act of 1974 and it is specially qualified and experienced to perform the actuarial services hereinafter described; and

WHEREAS, the BOARD has determined that it would be in the best interest of the VCERA if ACTUARY were to be retained to provide the actuarial services set forth herein below and, accordingly, has voted to approve this Agreement;

NOW, THEREFORE, in consideration of the above-stated premises, the terms, covenants and conditions hereinafter set forth, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto do hereby agree as follows:

1. <u>DESCRIPTION OF ACTUARIAL SERVICES</u>. The BOARD hereby delegates to ACTUARY the duties and ACTUARY hereby accepts and assumes responsibility to provide the actuarial services described in Exhibit "A", (hereto,

"Actuarial Services"), and described in Exhibit "C", the BOARD's RFP and the ACTUARY's written responses to the RFP.

2. PAYMENTS FOR ACTUARIAL SERVICES. In consideration of the services rendered in accordance will all terms and conditions and specifications set forth herein and set forth in Exhibits "A" and "C", BOARD shall make payment for actuarial services to ACTUARY as set forth in Exhibit "B", (hereto, "Fee Schedule"). Said payments shall be made within thirty (30) days after full completion of the services by the ACTUARY. Any amendments to the fee schedule, Exhibit "B", agreed to by both parties shall be set forth in a written modification to the Agreement. The fees set forth in this section shall be the sole compensation owed by or to any person for ACTUARY's services under this Agreement.

3. RELATIONSHIP OF THE PARTIES. It is understood that this is an Agreement by and between the BOARD and an Independent Contractor and it is not intended to, and shall not be construed to, create the relationship of agent, servant, employee, partnership, joint venture or association, or any other relationship whatsoever other than that of Independent Contractor.

4. NON-ASSIGNABILITY. Contractor shall not assign this Agreement or any portion thereof to a third party without the prior written consent of the BOARD, and any attempted assignment without such prior written consent in violation of this section automatically shall terminate this Agreement.

5. TERM AND TERMINATION. This Agreement shall be in effect for a term of three years, starting March 1, 2003. Either party may terminate this Agreement at any time for any reason by providing thirty (30) days written notice. Termination to be effective on the date specified in the notice. In the event of termination under this paragraph, ACTUARY shall be paid for all work provided to the date of termination.

6. INDEMNIFICATION. The ACTUARY agrees to indemnify, defend and hold harmless the VCERA, its BOARD, trustees, officers and employees from any and

all claims, actions, losses, damages, and/or liability arising from ACTUARY's negligent acts, errors or omissions.

7. INSURANCE. Without in anyway affecting the indemnity herein provided and in addition thereto, the ACTUARY shall secure and maintain throughout the Agreement the following types of insurance with limits as shown:

A. Workers' Compensation - A program of Workers' Compensation Insurance or a State Approved Self-Insurance Program in an amount and form to meet all applicable requirements of the Labor Code of the State of California, including Employer's Liability with Two Hundred and Fifty Thousand Dollars ($250,000.00) limits, covering all persons providing services on behalf of ACTUARY and all risks to such persons under this Agreement.

B. Comprehensive General And Automobile Liability Insurance - This coverage to include contractual coverage and automobile liability coverage for owned, hired and non-owned vehicles. The policy shall have combined single limits for bodily injury and property damage or not less than Five Hundred Thousand Dollars ($500,000.00)

C. Professional Errors and Omissions Liability Insurance - ACTUARY will secure an insurance policy for Professional Errors and Omissions insurance with coverage of at least one million dollars ($1,000,000.00) per claim or occurrence and shall cover all ACTUARY's officers, owners, and employees.

8. ADDITIONAL NAMED INSURED. All policies, except for the Workers' Compensation and Professional Errors and Omissions Liability Insurance policies shall contain additional endorsements naming VCERA and its officers, employees, agents, and volunteers as additional named insureds with respect to liabilities arising out of the performance of services hereunder.

9. WAIVER OF SUBROGATION RIGHTS. Except for Professional Errors and Omissions Liability, ACTUARY shall require the carriers of the above required coverages to waive all rights of subrogation against VCERA, its BOARD, trustees, officers, and employees.

10. POLICIES PRIMARY AND NON-CONTRIBUTORY. All policies required above are to be primary and non-contributory with any insurance or self insurance programs carried or administered by VCERA.

11. PROOF OF COVERAGE. ACTUARY shall immediately furnish certificates of Insurance to the VCERA evidencing the Insurance coverage, including endorsements, above required prior to the commencement of performance of services hereunder, and ACTUARY shall maintain such insurance from the time ACTUARY commences performance of services hereunder until the completion of such services.

12. FORCE MAJEURE.

A. In the event ACTUARY is unable to comply with any provision of this Agreement due to causes beyond their control relating to acts of God, acts of war, civil disorders, or other similar acts, ACTUARY shall not be held liable to VCERA for such failure to comply.

B. In the event VCERA is unable to comply with any provision if this Agreement due to causes beyond their control relating to acts of God, acts of war, civil disorders, or other similar acts, VCERA shall not be held liable to ACTUARY for such failure to comply.

13. NOTICES AND REPORTS.

Any notices and reports required or desired to be services by either party upon the other shall be addressed to respective parties as set forth below:

VCERA: Van Perris, Administrator
Ventura County Employees' Retirement Association
1190 S. Victoria Avenue, Suite 200
Ventura, CA 93003-6572
(805) 339-4267; FAX (805) 339-4269

ACTUARY: Paul Angelo
The Segal Company
120 Montgomery Street, Suite 500
San Francisco, California 94104-4308

And

Office of the of the President
The Segal Company
One Park Avenue
New York, NY 10016-5895

14. GOVERNING LAW AND VENUE. This Agreement will be construed in accordance with and governed by the laws of the State of California. Should any party file a lawsuit over any matter arising out of this Agreement, said lawsuit will be filed and prosecuted in the County of Ventura, State of California, and all parties hereto hereby consent to such venue and the personal jurisdiction of all courts sitting within such local.

15. ASSURANCE OF COMPLIANCE WITH CIVIL RIGHTS LAWS. ACTUARY hereby agrees and represents that it is an equal opportunity employer and has adopted policies to implement the purpose and provisions of the Civil Rights Act of 1964, 42 USC § 2000(e) et seq. to assure that no person is denied employment on the basis of race, creed, color, sex or national origin in connection with its performance of this Agreement.

16. AFFIRMATIVE ACTION. The ACTUARY shall take affirmative action to ensure that qualified applicants are employed, and that employees are treated fairly during employment, without regard to their race, color, religion, sex, handicap, ancestry or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

17. COUNTERPARTS. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original.

18. CONFIDENTIALITY. Except as provided by applicable law, or by order of a court or regulatory authority, ACTUARY shall maintain the confidentiality of all its records with respect to this Agreement, including, but not limited to, billing and the VCERA records. ACTUARY shall maintain the same confidentiality of these records as it does for other accounts.

19. VALIDITY. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision

20. WAIVER. No waiver of a breach of any provision of this Agreement by either party shall constitute a waiver of any other breach of said provision or any other provision of this Agreement. No waiver will be enforceable unless it is a written agreement executed by the party granting the waiver, making specific reference to this Agreement and reciting the parties' intention that it constitute a waiver. Failure of either party to enforce at any time, or from time to time, any provisions of this Agreement shall not be construed as a waiver thereof. The remedies herein reserved shall be cumulative and additional to any other remedies in law or equity.

21. ATTORNEY FEES. In the event of any litigation regarding this Agreement, the prevailing party as determined by the appropriate court shall be entitled to recover reasonable attorney's fees.

22. CHANGES AND AMENDMENTS. The VCERA and ACTUARY reserve the right to amend any such terms and conditions of this Agreement which may become necessary. Any revisions hereto will be accomplished by written agreement executed by both of the parties making specific reference to this Agreement and reciting the parties' intention that it constitute an amendment.

23. MERGER. This Agreement, and the Exhibits attached hereto, will constitute the complete and exclusive statement of understanding between the parties, superseding all previous agreements, written or oral, and all other previous communication between the parties relating to the subject matter of this Agreement.

24. SOLE PROPERTY OF THE BOARD. The data and analyses in reports developed, produced or provided under this Agreement shall become the sole property of the BOARD, but not the format.

25. AGREEMENT RENEWAL. This Agreement may be renewed for additional time periods provided that both parties sign renewal documents and the total payments during the renewal terms are specified.

EXECUTED AND AGREED TO by the parties as of the date first written above by their duly authorized representatives:

THE SEGAL COMPANY

By: Paul Angelo
PAUL ANGELO
Vice President & Actuary

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

By: Van Perris
VAN PERRIS
Administrator

CONTRACT WITHOUT THE EXHIBITS APPROVED AS TO FORM:

FRANK O. SIEH
County Counsel

By: Lori A. Nemiroff
LORI A. NEMIROFF
Assistant County Counsel

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04/08/03 10:45 AM

Exhibit A – Actuarial Services

Actuarial Valuation Services

The Segal Company ("Segal") will prepare three actuarial valuations for VCERA during the course of this contract, beginning with the June 30, 2003 valuation. Results will be presented in a formal written report and an oral presentation.

In addition to contribution rates, and unless eliminated in discussions with VCERA, our valuation reports will include, but not be limited to, the following information:

i. An executive summary designed to provide highlights of the valuation results.

ii. A narrative discussion of the key valuation results.

iii. An actuarial valuation certification.

iv. An analysis of actuarial gain/loss including a comparison of actual to expected assets and the impact of actuarial gain/loss on recommended contribution rates.

v. Measures of funding progress (funding ratios) relative to the present value of accrued benefits and to the accrued liability (under VCERA's actuarial cost method).

vi. Analysis of Financial Experience as specified by the Government Financial Officers Association.

vii. Supplemental calculations and financial disclosures required by GASB Statement 25, or successor standards.

viii. Tabular or graphic presentation of demographic information, including age and service matrices for actives and age and benefit type for retirees.

ix. Summary of plan provisions.

x. Description of actuarial assumptions and methods.

xi. A glossary of terms and sufficient explanatory text regarding methods and assumptions.

Experience Analysis Services

Segal will prepare actuarial experience analyses for VCERA for the three-year period ending June 30, 2005. Results will be presented in a formal written report and an oral presentation.

As appropriate, the assumptions that will be included in the experience investigation are:

- Withdrawal of member contributions
- Termination with a Vested Benefit
- Ordinary Death
- Duty Death
- Service Retirement
- Disability Retirement
- Percentage of members married at retirement
- Reciprocity percentage for terminated vested members

- Rates of service purchase
- Terminal pay
- Mortality after service retirement
- Mortality after disability retirement
- Investment return
- Individual compensation increases
- Aggregate payroll growth
- Inflation and COLA increases

Segal will also review the asset smoothing method and any other actuarial methods or practices.

As for the investment return assumption, the experience analysis and valuation reports will include a detailed development of a recommended investment return assumption by component, including the real returns by asset class and the risk adjustment.

Consulting Services

Generally Segal will provide advice on any technical, policy or administrative issues arising in the course of operation. This advice will be delivered by meetings, telephone calls, e-mail and written correspondence. Segal will discuss legal issues with the understanding that they are not attorneys and do not give legal advice.

This advice will include making recommendations relative to possible improvements in the financing and benefit structure of VCERA and keeping VCERA apprised of trends in the public pension industry and the actuarial profession. Other advisory services include assisting in the drafting of proposed legislative changes and advising on the administrative and policy aspects of new legislation.

Segal will prepare various tables and factors required by the System, establish specifications for VCERA's data files, and prepare the auditor's information.

Segal will carry out special studies requested by the Board, and will appear at selected meetings and hearings to discuss actuarial issues, including those relating to funding benefits and to pricing legislation. Segal will also participate in educational programs for VCERA's staff. Fees for these items could vary significantly depending on the scope of our involvement, and will be based on actual time charges at the rates in Exhibit B.

Three visits to VCERA per year are included in the schedule of fees, plus an additional meeting in 2005 to cover presentation of the Experience Analysis.

Segal's VCERA team (and other required resources) will be made fully available to perform all services to VCERA and provide VCERA's deliverables within required time frames. Segal will be readily accessible to VCERA's Administrator or a designee within one working day, and will be available for meetings within five working days of the request.

Exhibit B – Fees Schedule

Segal's fees for the services detailed in Exhibit A are shown below. These fees are guaranteed over a three-year contract term. Adjustments in the fees will most likely be made after the third year.

Fixed Fees for Services

Task	Cost per Service
Actuarial Valuation (includes one meeting)	$35,000
STAR COLA Valuation	$5,000
Review of June 30, 2002 Experience Analysis	$12,000
June 30, 2005 Experience Analysis (includes one meeting)	$20,000
Vested $108.44 Supplemental Benefit Valuation	$3,000
$5,000 Death Benefit Valuation	$4,000
General Consulting Services (includes two meetings)	$12,000/ year

Additional Services

Segal's hourly rates for consulting services not included above and for any additional services are as follows. For any such services, as appropriate, Segal will estimate the time charges required and receive VCERA approval before commencing the project. These rates are guaranteed for the first three years of the contract. For later years Segal will present a schedule of current rates for review by VCERA prior to the beginning of each year. These rates would go into effect only upon mutual agreement between VCERA and Segal.

Class of Personnel	Hourly Rate
Paul Angelo, Drew James Principal Actuaries	$350
Ted Shively, Dave Bergerson Reviewing Actuaries	$330
John Monroe, Primary Support Actuary	$300
Senior Actuarial Analysts	$160 - $290
Actuarial Analysts	$130 - $155
Rod Crane, Compliance Consultant	$330

Proposal to Provide Actuarial and Consulting Services to

Ventura County Employees' Retirement Association (VCERA)

SEGAL

THE SEGAL COMPANY

December 2002

120 Montgomery Street, Suite 500
San Francisco, CA 94104

SEGAL
THE SEGAL COMPANY

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SEGAL

THE SEGAL COMPANY
120 Montgomery Street, Suite 500 San Francisco, CA 94104-4308
T 415.263.8200 F 415.263.8290 www.segalco.com

December 26, 2002

Mr. Van Perris, Administrator
Ventura County Employees' Retirement Association
1190 South Victoria Avenue, Suite 200
Ventura, CA 93003

Re: **Ventura County Employees' Retirement Association – Proposal for Actuarial and Consulting Services**

Dear Mr. Perris:

We are pleased to submit this proposal to provide actuarial consulting services to the Ventura County Employees' Retirement Association (VCERA) in accordance with its Request for Proposal (RFP).

As a comprehensive benefits consulting and actuarial firm, The Segal Company is able and willing to provide the entire scope of requested services. We have assembled a team with the experience and diversity of retirement plan consulting that most closely matches the structure and needs of VCERA.

The Segal Company is dedicated to total client satisfaction and is the architect of responsive and creative solutions to our clients' benefit needs. In particular, we want to highlight our:

- **Commitment to Service:** Our well-recognized position as a benefits consulting firm ensures VCERA of highly qualified services and diverse consulting perspectives which we are able to draw upon from our other clients. In addition to meeting the technical requirements of this contract, we look forward to developing an excellent rapport with VCERA and staff to achieve the Association's goals.

- **Commitment to Quality:** Actuarial work requires complex calculations and high-level computer programming, as well as a sophisticated understanding of the client's environment and objectives. Our intensive and multi-layered quality review process not only checks the accuracy of the calculations, but also analyzes the results and recommendations to assure consistency with both client needs and standards of practice.

- **Commitment to Clarity:** Actuarial consulting often involves arcane technical issues, which nevertheless have definite policy implications. Our consultants are skilled in making the technical issues clear and accessible so that our clients can make informed and independent policy decisions. These communication skills are developed not only in our client assignments but also in our many seminars and presentations to California and national retirement associations.

- **Commitment to Dependability:** Many of the services we perform must be completed within a very short time frame. We will dedicate the staff and resources necessary to meet deadlines. The trust that is developed over time with our long-term clients is something we value and strive to reinforce.

- **Commitment to Innovation:** Technical competence is important, but we also strongly believe that our role as actuarial consultant will be to add value for VCERA. We will identify emerging issues and propose innovative solutions to assist VCERA in meeting its vision and operational goals.

Format of Proposal

For your ease of reference, we have arranged our proposal in sections consistent with the lettered items from the "Proposal Questionnaire" of the RFP (Part III). Here is our contact information

The Segal Company, 120 Montgomery Street, Suite 500, San Francisco, CA 94104-4308

Primary Contact:	**Paul Angelo, FSA**	**(415) 263-8273**
Secondary Contact:	**Drew A. James, FSA**	**(415) 263-8270**

Detailed resumes for our primary staff are included in Section F. A sample contract is in Section G. A short consulting work sample is included in Section H. We have included several sample Segal publications (Section I), along with our sample reports (Sections J and K).

The Segal Company would be privileged to serve as actuarial consultant to VCERA. Our proposal is intended to be fully responsive to the RFP. We would welcome the opportunity to meet with you to discuss our experience and qualifications in greater detail.

Sincerely,

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

Drew A. James, FSA, EA, MAAA
Consulting Actuary

PPA:jc
Enclosures

cc: Cathie G. Eitelberg

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Section A. – Organization and Background

1. ***About Segal.***

Segal's National Office is located at:
One Park Avenue
New York, New York 10016-5895

Services to VCERA will be performed out of our San Francisco office:

120 Montgomery Street, Suite 500
San Francisco, CA 94104
Phone: (415) 263-8200
Fax: (415) 263-8290

The Segal Company has over 750 employees. Our Board consists of one outside and the remaining inside directors. There are three primary market divisions (Public Sector, Corporate and Multiemployer/Collective Bargaining), all of which provide pension, health and welfare, compliance, technology and communications consulting. We have an affiliate firm, Segal Advisors, Inc., that provides investment consulting services.

Comprehensive services are provided in all our offices by consultants and actuaries with broad experience and extensive knowledge of the employee benefits field. In addition to our New York City office, we have offices in San Francisco, Los Angeles and throughout the United States and Canada:

Atlanta	***Hartford***	***St. Louis***
Boston	***Houston***	***San Francisco***
Chicago	***Los Angeles***	***Seattle***
Cleveland	***Minneapolis***	***Toronto***
Denver	***New Orleans***	***Washington, D.C.***
Edmonton	***Phoenix***	

The San Francisco office currently has 50 employees, including 10 consultants, 13 health analysts, 6 compliance analysts, 2 health actuaries and 10 pension actuaries, plus national office and local support staff. Nine of our local employees are credentialed actuaries.

The Segal Company provides services in nearly all areas of human resource and benefits consulting. Our primary practices are Defined Benefit Actuarial and Consulting Services and Health Plan Analytic and Consulting Services. Our other services include:

- *Defined Contribution Plan Consulting Services*
- *Employee Communications Services*

- *Compensation Planning Services*
- *Flexible Benefit Plan Services*
- *Human Resources Consulting Services*
- *Administration and Technology Services*
- *Investment Performance Services (through our subsidiary, Segal Advisors)*

Our History

In 1999, The Segal Company celebrated our 60th anniversary. As a private employee-owned actuarial and consulting firm, The Segal Company is a completely independent organization. Our independence allows us to provide totally unbiased consulting services for our clients.

Founded in 1939, early in the development of employee benefit plans in American industry, The Segal Company first conceived, designed and introduced many innovations that are now widely accepted benefit practices. The Segal Company's commitment to continued creativity is confirmed in our Statement of Values and Vision Statement.

Type of Business Entity and Ownership Structure of the Firm

The Segal Company is an international corporation of employee benefit plan actuaries and consultants. Since its inception, the firm has been an independent employee-owned firm. The Segal Company is the business name of a group of companies that are wholly owned by a holding company, The Segal Group, Inc, which is incorporated in the State of Delaware. All stock issued by The Segal Group, Inc. is owned by the officers of the Company. The corporate headquarters for The Segal Group, Inc. is located at One Park Avenue, New York, NY 10016. Ownership or control has not changed in the past twenty-five years. We are committed to remaining an independent organization, and have no future plans that involve any changes of ownership or the ownership structure.

2. ***Are there any changes in ownership structure planned or anticipated in the next 24 months?***

   No changes in ownership structure are planned or anticipated.

3. ***How many years has your firm provided actuarial services to public pension plans?***

   Segal has served public pension plan clients for most, if not all, of its 63-year history.

4. ***Number of public pension plan clients.***

Segal currently serves approximately 65 public pension plan clients. Following is a representative list of clients. Clients served by our San Francisco office are listed first, in bold type.

State	System Name	Number of Participants	Number of Years Retained	Scope of Services
California	**San Bernardino County Employees Retirement Association**	**25,000**	**<1**	**Annual Valuations, Special projects**
California	**Los Angeles Water and Power Employees Retirement Plan**	**18,000**	**4**	**Annual Valuation**
California	**Los Angeles County Employees Retirement Association**	**128,000**	**4**	**Annual Audits, Special projects**
Oregon	**ATU/TRI-MET Pension Plan**	**2,700**	**12**	**Annual Valuation**
Michigan	State Retirement Systems (4)	536,000	9	Annual valuations
Missouri	University of Missouri	20,000	2	Annual Valuations
Missouri	St. Louis Retirement System	3,000	15	Annual Valuations
Nevada	Public Employees' Retirement System	76,000	22	Annual Valuations
Nevada	Judges' Retirement System	80	1	Annual Valuations
North Dakota	Retiree Health Insurance Credit Fund	15,000	8	Annual Valuations
North Dakota	Public Employees' Retirement System	15,000	20	Annual Valuations
North Dakota	Highway Patrolmen's Retirement System	185	20	Annual Valuations
North Dakota	Judges' Retirement System	70	20	Annual Valuations
Ohio	Police and Fire Pension Fund	50,000	2	Annual Valuations
Pennsylvania	Municipal Retirement System	10,000	14	Annual Valuations
Texas	Municipal Retirement System	110,000	5	Annual Valuations

5. *List of five largest public pension clients.*

Our five largest clients (included on the list under 4., above) are:

- *Los Angeles County Employees' Retirement Association*
- *Texas Municipal Retirement System*
- *Public Employees' Retirement System of Nevada*
- *Michigan State Retirement Systems*
- *North Dakota Public Employees Retirement System*

6. *Three actuarial accounts added and three actuarial accounts lost over the last two years.*

Three actuarial clients added are:

- *San Bernardino County Employees' Retirement Association*
- *Nevada Judges Retirement System*
- *Ohio Police and Fire Pension Fund*

Three actuarial clients lost are:

- *Santa Clara Valley Transportation Agency*
- *Employees' Retirement System of Hawaii*
- *El Paso County Retirement System*

7. *Are there limits on the number of new clients we will accept? How will we manage growth of our list of clients?*

There are currently no formal limits on growing the number of Segal's clients. Segal maintains a strong commitment to growth, particularly in the public sector. We have developed "normal growth" staffing plans as well as contingency plans in the event that actual growth exceeds our expectations. However, before we submit a proposal for any new actuarial services, we consult with national and local leadership (including the local Actuarial Manager) to ensure that we can provide the prospective client with the high quality and responsive service they deserve.

8. ***Has any company officer been involved in litigation relating to actuarial services during the last five years? Describe the level of errors and omissions coverage.***

With over 2,500 clients, the Segal Company is occasionally named as a party in litigation involving the performance of its services. The following is a description of litigation matters pending against The Segal Company:

A. Frederic Breidenbach v. International Brotherhood of Electrical Workers Local 82 Joint Pension Fund: Union dissidents and participants in the Pension Plans are challenging various actions taken by the Trustees in 1984 (before The Segal Company was hired) and in 1989 (when Segal was the consultant) regarding the allocation and reallocation of funds between the defined benefit and defined contribution plans. It is alleged that Segal is a fiduciary, which is the basis for Segal's inclusion in the lawsuit. Segal contends that it acted as a consultant and not as a fiduciary, and has been actively defending itself. A settlement between the parties is being finalized. If the lawsuit is not settled, Segal will file a motion for summary judgment.

B. Bretall v. Carlough: A participant in the Sheet Metal Workers National Pension Fund brought a lawsuit against the estates of two former Trustees of the Fund for actions taken in adopting a COLA benefit. The Segal Company had been the actuary and consultant to the Fund. Prior to the initiation of this lawsuit, Segal had entered into settlement discussions with the Fund. Segal and representatives of the Fund agreed upon a settlement, which required a bar order from the Court. In the interim, one of the defendants has brought Segal into the pending party through a third party complaint. We expect to resolve the matter in accordance with the settlement reached by the Fund.

C. Burke, et al. v. Bodewes, et al: The current chair of the Board of Trustees of the Buffalo Carpenters Pension Fund and two named participants have filed a complaint in federal district court against current and former Trustees and The Segal Company alleging fiduciary breaches and other causes of action. The Segal Company was consultant and actuary to this Fund from approximately 1970 to 1999. We deny the allegations in the complaint and will vigorously defend our position that The Segal Company was not responsible for the Fund's financial problems."

D. Randy Lang: Certain former Trustees of the Local 231-613-614 Welfare Fund alleged professional negligence on the part of Segal and the Fund's auditors. The complaint sought indemnification and contribution for the plaintiff's liability, if any, arising from allegations of breach of fiduciary duty asserted in an action commenced by the independent fiduciary of the Fund. A settlement was reached on an underlying action against the Trustees and the matter against Segal has been withdrawn. In a related matter, Silverman, an independent fiduciary appointed by a Federal Court Judge, initiated an action against 70 defendants alleging RICO violations, and against Segal for one count of malpractice. The Silverman matter has been resolved subject to the approval of The Department of Labor.

Segal maintains $5 million of errors and omissions insurance.

9. ***Segal's actuarial consulting specialties, strengths and limitations.***

- ***Stability and Independence*** - Founded in 1939, we have extensive experience in providing actuarial and consulting services to the state and local government retirement sector. Our Company is employee owned and independent of any financial, insurance or investment entity.

- ***Top Talent*** - We are qualified for this assignment and have assigned one of our top teams of public retirement system consultants. Your Supervising Actuaries, Paul Angelo and Drew James, have extensive and recent experience in public sector consulting on actuarial matters, including particular experience with California county retirement systems.

- ***Valuation System Resources*** - The Segal Company has designed and programmed its own software for all actuarial functions for many years. Our Actuarial Technology and Systems (ATS) department is comprised of a group of dedicated systems developers responsible for providing and supporting the Segal Company's actuarial valuation system. The state-of-the-art actuarial valuation system has been designed internally to maintain control and flexibility to allow for modifications to best meet the unique needs of our clients.

- ***Commitment to Quality and Service*** - Our internal quality control standards require a three-stage production and review process of actuarial work. Also, our chief actuary, Tom Levy, annually reviews the work of all of our actuarial departments.

- ***Clear and Innovative Communication*** - Not only do we write our reports in a manner that effectively convey technical material and concepts to the reader, but we can work with the Board to communicate impacts of the results of the valuation in various formats. In addition to our work in board and client meetings, our consultants hone their communication skills by serving frequently as speakers, lecturers and panelists, and by authoring articles and papers in trade publications.

- ***Exploring the Cutting-Edge*** - Public plans today are facing a number of challenges: interest in defined contribution plans, demographic shifts, cash flow issues, protection of the trust and assets, federal law compliance and communicating with an increasing number of constituencies, to name but a few. The Segal Company has recent consulting experience in all of these areas and we help our clients to anticipate future demands and opportunities. For example, we are currently working with 1937 Act system boards, attorneys and accountants to address the policy and accounting issues for crediting interest on reserves in years of reduced or negative earnings.

- ***Federal Legislation Monitoring*** - Through a combination of our National Public Sector Practice Leader, Cathie Eitelberg, our National Director of Public Sector Compliance, Roderick B. Crane, and our Legal and Research Division, we are able to help our public retirement clients remain up-to-date on current federal legislative activity affecting governmental retirement and deferred compensation plans. We actively work with the public retirement plan industry groups (listed below) to monitor and evaluate federal legislation.

10. ***Does Segal act as a fiduciary when providing actuarial services?***

Segal does not act as a fiduciary in conducting its actuarial services. We partner with the Association's fiduciaries to assist them in making proper and prudent decisions. Actuarial decisions are ultimately made by the Board of Retirement based upon our recommendations. We work with the Board to develop a clear understanding of their funding policies and objectives. With this information, we can educate the Board about available alternatives and make recommendations that we believe are most suitable for those policies and objectives.

11. ***What distinguishes Segal from its competitors?***

Briefly, our distinguishing competitive advantages are:

- Two highly experienced consulting actuaries assigned to VCERA
- Senior level actuaries who have prior working experience with VCERA
- Independence of ownership, resources and systems
- Industry standard valuation systems and quality control procedures
- National resources and local responsiveness
- National commitment to Public Sector Retirement Systems
- Substantial experience with all types of public retirement systems in California
- Leading edge research and expertise on excess earnings issues for 1937 Act systems
- Superior communication skills of both of your assigned consulting actuaries

We will elaborate on two of these advantages, Commitment to Public Sector and Quality Control.

Leadership in the Public Sector

The Segal Company has taken a leadership role in the employee benefits field, and particularly with regard to the public sector. We actively participate in many public retirement organizations including the following:

National Associations

- *The National Association of State Retirement Administrators*
- *National Council on Teacher Retirement*
- *Government Finance Officers Association*

- *State and Local Government Benefits Association*
- *National Association of Governmental Deferred Compensation Administrators*
- *National Association of Public Pension Attorneys*
- *Association of Private Pension and Welfare Plans*
- *Employee Benefit Research Institute*
- *The International Foundation of Employee Benefit Plans (IFEBP)*

State Associations

- *The California Association of Public Retirement Systems (CALAPRS)*
- *The State Association of County Retirement Systems (SACRS)*

Our Company's role in the review and development of public employee benefit programs has been widely recognized. Our officers and professionals are frequent speakers at national and regional conferences on public sector benefits, and are consulted by governments, educational institutions, and leading publications on various aspects of retirement systems and group insurance programs for public employees.

In particular your Supervising Actuaries, Paul Angelo and Drew James, are frequent speakers at conferences, workshops and seminars sponsored by SACRS, CALAPRS and the IFEBP. For example, Mr. Angelo recently addressed the SACRS conference in Anaheim, California on *Public Retirement Benefit Plan Design*, and the IFEBP conference in Hawaii on *The Political Aspects of Overfunding*. Mr. Angelo and Mr. James recently authored a pair of articles in the Public Retirement Journal on excess earnings policies and practices, and interest crediting and reserve accounting for 1937 Act systems. Copies of that article are included in Section I.

Quality Control Procedures

Segal has a battery of quality control practices and enforcement policies that is second to none in our industry. We have various quality control policies and procedures for our different services and practices. Here are the three policies most relevant to the actuarial services we would provide to VCERA.

Actuarial Department. Our internal quality control standards for require a three-stage production and review process for all major actuarial projects, including annual valuations and experience investigations. After basic production, all results receive a "detailed review" that specifically checks all computer programs, valuation summaries and reports. Then a senior actuary in the department performs a "final review" insuring that all procedures and checklists have been followed, as well as providing a fresh look to insure that our results are consistent with all external documents such as plan documents, summary booklet and financial reports. Each level of review is documented in "review notes" that become part of the ongoing documentation for each client.

Departmental quality procedures are detailed, thorough and rigorous. They include standardized file contents and organization, procedural checklists specific to the type of valuation and exhaustive individual "test life" requirements.

Annual Quality Audits. At least once each year our Chief Actuary performs a two-day audit of each actuarial department. About ten valuations are selected at random for detailed review to check that all department procedures have been followed. The audit also includes a review of the consulting advice contained in out reports. The results of the audits are discussed in detail with local actuarial manager, the office head, and the senior staff for the audited cases.

Senior Review. Every piece of client communication that leaves our office is review by an another consultant with expertise in the specific field who is does not work on the assignment in question. This review focus on the consulting information and presentation, and complements the technical review performed within the actuarial department.

12. *Potential Conflicts*

We are not aware of any potential conflicts that Segal would have in servicing VCERA.

Section B. – Segal's VCERA Team

1. ***Principal Actuary and Support Staff***

Your Lead Actuary will be Paul Angelo, Vice President and Actuary. Mr. Angelo has a number of key areas of expertise and experience in public retirement consulting, including:

- *Mr. Angelo has consulted to many retirement systems, with a particular focus on plan design, asset valuation methods, and funding policies. He is the lead actuary for the San Bernardino County Employees' Retirement Association and the Los Angeles Water and Power Employees Retirement Plan.*
- *Mr. Angelo has conducted actuarial audits of the Orange County Employees Retirement System and the Los Angeles Water and Power Employees Retirement Plan, and is the retained audit actuary for the Los Angeles County Employees Retirement System (LACERA).*
- *Mr. Angelo is currently consulting to LACERA on a review of their funding policies, with particular emphasis on the measurement and distribution of excess earnings.*
- *Mr. Angelo is currently consulting to Ventura County and its employee organizations on various retirement benefit issues by conducting educational meetings (with both the bargaining parties and the Board of Supervisors), carrying out funding projections under alternative benefit designs, working with the system actuary and administrator, and identifying related practices and experience at other county retirement systems.*

Mr. Angelo has been assigned primary responsibility for eight clients.

Your second Lead Actuary will be Drew James, Consulting Actuary. Mr. James is an experienced public sector consultant and actuary who has served as valuation actuary for several city and county retirement systems in California. He is the second supervising actuary for the San Bernardino County Employees' Retirement Association. Some of Mr. James' past assignments include:

- *Creation of a DROP program for City of Ventura employees*
- *Managing a major CalPERS study on the impact of IRC Section 415 and assisting CalPERS develop Section 415 testing software and replacement benefit plans.*
- *Actuarial consultant to the Select Commission on Judicial Retirement with the charge of developing a new retirement benefit structure for California Judges*
- *Actuarial consultant to the Los Angeles County Economy and Efficiency Commission to solve "pension spiking" problem*

Mr. James has been assigned secondary responsibility for three clients.

Full resumes for both Mr. Angelo and Mr. James resumes can be found in Section F. They both exceed the Standards for Supervising Actuaries specified in the California Government Code. In particular:

A. Both Mr. Angelo and Mr. James are Members of the American Academy of Actuaries and Enrolled Actuaries under ERISA. In addition, they are each Fellows of the Society of Actuaries, the most rigorous credential for actuaries practicing in North America.

B. Both Mr. Angelo and Mr. James have over 20 years of experience each in providing consulting and technical actuarial services to large retirement systems, including public retirement systems.

C. Mr. Angelo has supervised actuarial valuation work and provided direct consulting services to the San Bernardino County Employees' Employees' Retirement Association (25,000 members, $3 billion), Los Angeles County Employees' Retirement Association (128,000 members, $30 billion), Orange County Employees' Retirement System (33,000 members, $5.5 Billion) and the Los Angeles Department of Water and Power Retirement System (18,000 members, $5.8 billion), as well as many others.

D. Mr. James has supervised actuarial valuation work and provided direct consulting services to the San Bernardino County Employees' Employees' Retirement Association (25,000 members, $3 billion), Contra Costa County Employees' Retirement Association (14,000 members, $2.9 billion), Alameda County Employees' Retirement System (15,000 members, $3.8 billion) and the Sacramento County Employees' Retirement System (16,000 members, $3.8 billion), as well as many others.

E. Both Mr. Angelo and Mr. James have testified before legislative and/or administrative bodies in support of actuarial positions and/or the principles used in valuing retirement systems or pricing legislation. Mr. Angelo has testified before the Minnesota state legislature regarding the funding of the Minnesota State Teachers Retirement System. Mr. James has testified before various California Sate Assembly and Senate Committees, the Montana State Legislature Subcommittee, the Ohio State Legislature Subcommittee and the California Judicial Council.

F. In addition to appearing before legislative bodies, Segal Company actuaries, including Mr. Angelo and Mr. James, regularly appear before Boards of Supervisors, City Councils and (non-client) Boards of Retirement to make formal presentations on the principles used in valuing the system or pricing legislation. Mr. Angelo has made such presentations recently before the Oakland City Council and the Oakland Police and Fire Retirement System, as well as the Ventura County Board of Supervisors. Mr. James has presented before the Fresno City Council and various county Boards of Supervisors.

G. Communications is a crucial aspect of the consulting actuarial business, one that is sometimes under-emphasized. Actuarial concepts can be obscure, and there is a difficult balance to be found between providing too much or too little detail. Both written reports and oral presentations should make the essential decision information and concepts clear and accessible. This can be especially important for a public retirement system, where the interested parties come from a variety of backgrounds with various levels of experience.

H. Both Mr. Angelo and Mr. James have statewide and national reputations for their ability to make the sometimes arcane business of actuarial science accessible to lay persons and policy makers. One measure of this ability is their active roles as speakers and lecturers on retirement topics for public sector audiences. Another is the testimonials they regularly receive from their clients who "never really understood this actuarial stuff before".

For a client's perspective on our communication skills, we suggest you contact:

Ms. Barbara A. Journet
Director - Human Resources Department
County of Ventura
800 S. Victoria Avenue
Ventura, CA 93009
(805) 654-2561

Mr. Keith B. Filegar
President
Service Employees International Union, Local 998 AFL-CIO, CLC
2472 Eastman Avenue, Unit 30
Ventura, CA 93003
(805) 644-8291

Ms. Pat Wiegert
Retirement Administrator
Contra Costa County Employees' Retirement Association
1355 Willow Way, Suite 221
Concord, CA 94520
(925) 646-5741

Mr. Richard Goss
Administrator
California Association of Public Retirement Systems
P.O. Box 7223
Auburn, CA 95604
(916) 788-0757

In addition to our sample reports, we wished VCERA to see a sample of "day to day" actuarial communication. We have include in Section H of our proposal an actual consulting work sample prepared by Mr. Angelo for the Los Angeles County Employees' Retirement Association (LACERA). LACERA had requested independent advice regarding an extremely technical distinction between two variants of a particular actuarial funding method. This work sample is included not so much for its technical content as for its demonstration of how everyday examples can be used to explain even the most difficult and subtle actuarial concepts. Section I contains another technical communications example, the articles Mr. Angelo and Mr. James recently authored in the Public Retirement Journal on excess earnings policies and practices, and interest crediting and reserve accounting for 1937 Act systems.

Other Personnel

Your supervising actuaries will be Ted Shively, A.S.A. and Dave Bergerson, A.S.A., who will have primary responsibility for supervising the production and certification of our actuarial services.

Mr. Shively is an experienced public sector actuary, and recently served as valuation actuary for the State of Hawaii. Mr. Angelo and Mr. Shively will work together on any actuarial or valuation policy issues relative to our work for VCERA. Mr. Shively holds degrees in mathematics and business, and has been with the Segal Company for 18 years.

Mr. Bergerson is the manager of our San Francisco actuarial department, and serves as the supervising actuary on our work for two other major California public retirement systems. Mr. Bergerson holds a degree in mathematics, has 15 years of actuarial consulting experience, and has been with The Segal Company for five years

Your primary support actuary will be John Monroe. Mr. Monroe currently serves as primary support actuary for the Los Angeles Water and Power Employees' Retirement Plan and for the San Bernardino Employees' Retirement Association.

Compliance service will be provided by Rod Crane, J.D. of our Denver office. Mr. Crane has over 15 years of consulting experience, all with The Segal Company.

Full resumes for Messrs. Shively, Bergerson, Monroe and Crane may also be found in Section F.

Statement of Availability to VCERA

With the exception of Mr. Crane (who is in the Denver office) all of the services for VCERA will be provided by our San Francisco office. Segal's VCERA team (and other required resources) will be made fully available to perform all services to VCERA and provide VCERA's deliverables within required time frames.

2. *Number of Accounts Assigned to Segal Actuaries*

Segal does not have a formal process or formula for determining the number of accounts assigned to each actuary, since we find that different clients of comparable size can require varying degrees of attention and time commitment. Our office head works closely with each consulting actuary to monitor workload, including such considerations as the number and location of meetings during the year. A careful assessment is made to assure available capacity before a new client-consultant relationship is established.

Currently, Mr. Angelo is assigned as the primary consultant on eight accounts. Mr. James serves as the secondary consultant on three accounts. Both Mr. Angelo and Mr. James have ready capacity to serve VCERA.

3. *Turnover of Segal's Personnel*

Over the past three years Segal has experienced a turnover rate of approximately 3% per year.

Section C. – Client References

1. Mr. Timothy Barrett, CFA
   Executive Director / Chief Investment Officer
   San Bernardino County Employees' Retirement Association
   348 W. Hospitality Lane, 3rd Floor
   San Bernardino, CA 92415-0014
   (909) 885-7980

2. Mr. Greg Rademacher, Assistant Executive Officer
   Los Angeles County Employees' Retirement Association
   300 North Lake Avenue
   Pasadena, CA 91101
   (808) 586-1735

3. Mr. Duamel Vellon, Retirement Plan Manager
   Los Angeles Water and Power Employees Retirement Plan
   111 N. Hope Street, Room 357
   Los Angeles, CA 90012
   (213) 367-1689

Please see page 12 for additional references.

Section D – General Information

1. ***Description of computer facilities***

We have chosen to provide a rather brief description of our computer equipment. More information can be provided, if necessary.

All of the computer hardware and software is owned by Segal. The hardware is located in the San Francisco Office.

Hardware Systems. Actuarial processing is performed on Dell personal computers utilizing Windows NT workstations connected to Novell file servers located on the local area network (LAN) in the local office where actuarial work is performed. Your services will be performed in the San Francisco office.

Each local office LAN is connected via a frame relay network to form the Segal Company's wide area network (WAN). The current system has been in place for many years and is constantly upgraded. For example, in 2001 we upgraded the speed of the WAN as well as optimizing its networking features. Most recently, all the PCs used by the actuaries were upgraded (replaced) in 2002.

Software Systems. The Segal Company has designed and programmed its own software for all actuarial functions for many years. The Actuarial Technology and Systems (ATS) department is comprised of a group of dedicated systems developers responsible for providing and supporting the Segal Company's actuarial valuation system. The state-of-the-art actuarial valuation system has been designed internally to maintain control and flexibility to allow for modifications to best meet the unique needs of our clients. The PC-based actuarial valuation system is comprised of the following major components:

- ***Segal Data Handler*** - interactive processing of the participant data to generate a unified database that becomes the single source for all actuarial processing needs.
- ***PC-MESVAL*** - a multi-decrement actuarial valuation program that produces a comprehensive set of liability calculations associated with a wide range of benefit plans. The modular structure of the program allows for improvements to be implemented with a high degree of ease, speed and accuracy.
- ***Costs and Report Generator*** - the set of demographic and liability calculations produced by PC-MESVAL are automatically imported into an integrated costs and report generator program. This program produces actuarial calculations associated with the liabilities to meet regulatory, legislative and client requirements. The results of these calculations are electronically linked to a report generator that creates the valuation report including tables and graphs.

- ***Actuarial Utility Programs*** - these user-friendly tools are readily available to the actuaries for use in performing various actuarial calculations such as Section 415 limitations, social security calculations and generating annuity values.

The PC-based version of the Segal Company's actuarial valuation system has been in place since 1988. We are constantly upgrading our software to keep up with legislative, regulatory and technological changes.

2. ***Sample Actuarial Reports***

We have included a sample experience study report in Section J and a sample actuarial valuation report in Section K.

3. ***Standard Contract***

We have included a copy of our standard contract in Section G.

Section E. – Proposed Fees

Our fees for the tasks detailed in Section II.E. of our proposal are shown in the following table. We have shown the cost for each performance of the task. We understand that the contract term is open and that these tasks would be performed at various times over the term of the contract. These fees are guaranteed over a three-year contract term. Adjustments in the fees will most likely be made after the third year.

Task	Cost per Service
Actuarial Valuation (each year)	$35,000
Investigation of Experience	20,000
STARCOLA Valuation (each year)	5,000
Vested $108.44 Supplemental Benefit Valuation	3,000
$5,000 Death Benefit Valuation	4,000

Handling of June 30, 2002 Experience Analysis Results

Section II of the RFP requested that we address the handling of the June 30, 2002 experience analysis results in the valuation process. Ordinarily we prefer to incorporate experience study results into the valuation process as of the same date that the experience analysis period closes. For example, we would include the July 1, 1999 to June 30, 2002 experience analysis results into the June 30, 2002 actuarial valuation. We understand that the June 30, 2002 actuarial valuation will not use the June 30, 2002 experience study results.

Given that the first valuation under this contract would be as of June 30, 2003, we suggest that the Board have the new actuary review the June 30, 2002 experience analysis results prior to incorporating them into the June 30, 2003 actuarial valuation. This could probably be done at a fee of about 60% of the ordinary experience analysis charge.

Additional Services

Our hourly rates for additional services are as follows. For any such services, we would estimate the time charges required and receive VCERA approval before commencing the project.

Class of Personnel	Hourly Rate
Paul Angelo, Drew James Lead Actuaries	$350
Ted Shively, Dave Bergerson Supervising Actuaries	$330
John Monroe, Primary Support Actuary	~~$280~~ 300.00
Senior Actuarial Analysts	$160 - $275
Actuarial Analysts	$130 - $155
Rod Crane, Compliance Consultant	$330

The above rates are all-inclusive. The Segal Company does not charge or load for computer time or system usage, nor do we charge for clerical support.

These rates are guaranteed for the first three years of the contract. For later years we would present a schedule of our current rates for review by VCERA prior to the beginning of each year. These rates would go into effect only upon mutual agreement between VCERA and The Segal Company.

Section F – Resumes

LEAD ACTUARY

PAUL ANGELO, F.S.A., E.A., M.A.A.A., F.C.A.
Vice President and Actuary

Paul Angelo is a Vice President and Actuary in the San Francisco office of the Segal Company, having joined the firm in January of 1998. Mr. Angelo has over twenty-two years of actuarial consulting experience, and is a Fellow of the Society of Actuaries and an ERISA Enrolled Actuary. He is also a Member of the American Academy of Actuaries and a Fellow of the Conference of Consulting Actuaries.

As a consulting actuary, Mr. Angelo's focus areas include the design, funding and administration of large defined benefit plans, including 1937 CERL Systems and other public retirement systems in California. His assignments for these systems have included actuarial audits, in-depth analyses of excess earnings distribution policies, the design of ad hoc supplemental COLAs, and consulting to bargaining parties on the design of a new tier.

Mr. Angelo as also has extensive experience with Taft-Hartley (joint labor/management trustees) and other collectively bargained plans. In addition to regular valuation and consulting assignments, his work with these plans has included numerous collective bargaining negotiations and arbitrations on matters of plan design and funding.

In addition to his consulting activities, Mr. Angelo is an active speaker on retirement topics. Mr. Angelo has made presentations to the national Enrolled Actuaries Meeting on many topics, including divorce settlements in pension plans and asset smoothing methods. His presentations for CALAPRS include the all day seminar on Pension Funding and Actuarial Valuations, and the new trustees' course presented by at Stanford University. In November 2000, Mr. Angelo addressed the IFEBP conference on the political aspects of overfunding. Mr. Angelo is also on the faculty of the IFEBP CAPPP Program (Certificate of Achievement in Public Plan Policy).

Recent projects include:

- Review of funding, reserving and excess earnings distribution policy for a major county system.
- Review of asset valuation and reserving policies for a major California public utility.
- Consulting with bargaining parties to resolve plan design and funding issues that had lead to a recent work stoppage.
- Redesign of transit district negotiated plan based on coordinated consulting assignments from both labor and management.

LEAD ACTUARY

DREW JAMES, F.S.A., E.A., M.A.A.A.
Consulting Actuary

Drew James is a consulting actuary in Segal's San Francisco office. He has more than 30 years experience in retirement, insurance, and health care benefits. He is a recognized expert in public retirement systems, including states, cities, counties, universities and public agencies. His assignments include those involving plan design, funding, financial reporting, administration, communications and actuarial valuations.

Mr. James has testified on actuarial issues before numerous government bodies, including various California and Montana legislative hearings, and meetings of numerous boards of supervisors, city councils, school boards and retirement boards. In this capacity, he has repeatedly demonstrated the capability to communicate complex actuarial principles and issues to wide audiences with a high degree of success. He was very heavily involved in the design and passage of SB65, which created the first actuarially funded retirement system for California judges.

Mr. James has served as actuarial consultant to several multi-billion dollar public retirement systems. Some of his relevant projects include:

- Creation of a DROP program for City of Fresno employees
- Managing a major CalPERS study on the impact of IRC Section 415 and assisting CalPERS develop Section 415 testing software and replacement benefit plans
- Actuarial consultant to the Select Commission on Judicial Retirement with the charge of developing a new retirement benefit structure for California Judges
- Actuarial consultant to the Los Angeles County Economy and Efficiency Commission to solve "pension spiking" problem

Drew joined Segal in March 2002 after eight years with William M. Mercer, Inc. Prior to that he spent 16 years with W F Corroon and its organizational predecessors. He graduated magna cum laude from San Francisco State University and is a Fellow of the Society of Actuaries, an ERISA Enrolled Actuary and a Member of the American Academy of Actuaries.

Drew has been a frequent a speaker at public retirement conferences (CALAPRS, SACRS, etc.) and various actuarial organizations. He has authored articles on GASB pension reporting proposals, the role of the actuary, and has co-authored an article on the PERS Section 415 Benefit Replacement Program adopted by the CalPERS Board of Administration. Drew also serves on the investment committee of the Sisters of St. Dominic's Retirement Fund.

SUPERVISING ACTUARY

THEODORE J. SHIVELY, A.S.A., E.A., M.A.A.A.
Vice President and Actuary

Mr. Shively joined The Segal Company's Chicago office in 1978. In 1984, he transferred to the San Francisco office where he worked until 1990. After working a few years at a property and casualty insurance company, Mr. Shively returned as an associate actuary in 1994.

Mr. Shively is a Phi Beta Kappa graduate of Michigan State University where he received a B.S. degree in mathematics. In addition, Mr. Shively received a M.B.A. degree from California State University at Hayward. He is an Associate of the Society of Actuaries, a Member of the American Academy of Actuaries and an Enrolled Actuary.

Mr. Shively recently served as valuation actuary to the State of Hawaii Employees Retirement System.

SUPERVISING ACTUARY

DAVE T. BERGERSON, A.S.A., M.A.A.A., E.A.
Vice President and Actuary

Mr. Bergerson joined The Segal Company in 1996, and currently serves as the actuarial manager in our San Francisco office. Mr. Bergerson has over fifteen years of actuarial consulting experience, and is an Associate of the Society of Actuaries and an ERISA Enrolled Actuary. He is also a Member of the American Academy of Actuaries.

Mr. Bergerson is a graduate of the University of Minnesota where he received a B.A. degree in mathematics. Mr. Bergerson currently serves as valuation actuary to the Los Angeles Water and Power Employees Retirement Plan and the audit actuary for the Los Angeles County Employees' Retirement Association.

PRIMARY SUPPORT ACTUARY

JOHN MONROE
Actuarial Associate

Mr. Monroe is a Senior Actuarial Analyst in the San Francisco office of the Segal Company, having joined the firm in April 1996.

Mr. Monroe currently serves as primary support actuary for the Los Angeles Water and Power Employees Retirement Plan. He recently served as the primary support actuary for the actuarial audit of the Orange County Employees Retirement System.

Mr. Monroe is a graduate of Oregon State University where he received a B.S. degree in mathematics.

COMPLIANCE CONSULTANT

RODERICK B. CRANE, J.D.
Vice President
National Government Compliance Director

Mr. Crane is an attorney and an expert in the design and administration of public-sector retirement and savings plans including IRC §401 qualified defined benefit and defined contribution plans, §457 deferred compensation plans, §403(b) tax-sheltered annuities and §401(k) cash or deferred arrangements. Mr. Crane, before coming to The Segal Company, was counsel to the North Dakota Legislative Council's Committee on Public Employee Retirement Programs. Mr. Crane is also an expert on compliance with federal laws affecting governmental plans and serves in this capacity as the Company's National Government Compliance Director.

Mr. Crane is an active participant in the National Association of State Retirement Administrators, the National Association of Governmental Deferred Compensation Administrators, the National Association of Public Pension Plan Attorneys and the Government Finance Officers Association. He is a frequent speaker on public-sector retirement and deferred compensation issues, and has provided legislative testimony on numerous occasions. Most recently, he has authored two parts of the GFOA 's "Regulatory Compliance Guide" series: *Federal Health Care and Pension Laws Affecting State and Local Governments* and *Federal Workplace Laws Affecting Public-Sector Employee Benefit Programs*. He also recently presented a paper written for the Wharton School of Business – Pension Research Council titled *Federal Regulation and Taxation of Public Pension Plans*.

Mr. Crane received his B.A. degree in Economics from the University of North Dakota and his J.D. from the University of North Dakota School of Law. He has over 15 years of consulting experience, all of which have been with The Segal Company.

Section I – Segal Publications

This Section includes the following:

- **The Public Retirement Journal, March 2002**
  Ver-r-r-y Interesting!
  1937 Act Interest Crediting and Reserve Accounting
- **The Public Retirement Journal, July/August 2002**
  Of Passing Interest
  Excess Earnings Principles and Practices Under the 1937 Act
- **Segal Public Sector Letter, December 2002**
  Reaping Rewards, The Benefits of Conducting Regular Reviews of Defined Contribution Plan Design and Service-Provider Performance.
- **Segal Public Sector Letter, February 2002**
  Providing Public Sector Services in a time of Change
- **The Segal Company Bulletin, September 2001**
  Public Sector Plan Issues in the Wake of the September 11 Tragedies
- **The Segal Company Public Sector Letter, November 2000**
  Disability Management

June 4, 2018

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

SUBJECT: REVIEW AND ADOPTION OF PROPOSED FISCAL YEAR 2018-19 OPERATING BUDGET

Board Members:

Overview

Government Code section 31580.2(a) requires the Board to adopt an annual budget covering the entire expense of administration of the retirement system. The total administrative expenses, which are direct charges against the earnings of the Fund, may not exceed the greater of twenty-one hundredths of one percent of the accrued actuarial liability of the system, or two million dollars ($2,000,000), as adjusted annually by the amount of the annual cost of living adjustment (CAP). These expenditures will be budgeted in the Administrative budget which is comprised of an Administration and Information Technology (IT) Support budget.

Government Code section 31580.2(b) provides an exclusion from the CAP for expenditures for computer software, computer hardware, and computer technology consulting services in support of these computer products. These costs are identified as information technology costs herein. These expenditures will be budgeted in the IT-Exempt-CAP budget. Depreciation/Amortization related to capitalized expenditures will be included in the Other Expenditures Budget.

Government Code 31596.1, as amended, states that expenses of investing monies shall not be considered a cost of administration of the retirement system, but shall be considered as a reduction in earnings from those investments or a charge against the assets of the system. These expenditures will be budgeted in the Investment or Other Expenditures Budgets.

Other Expenditures, Investment, Information Technology and Contingency

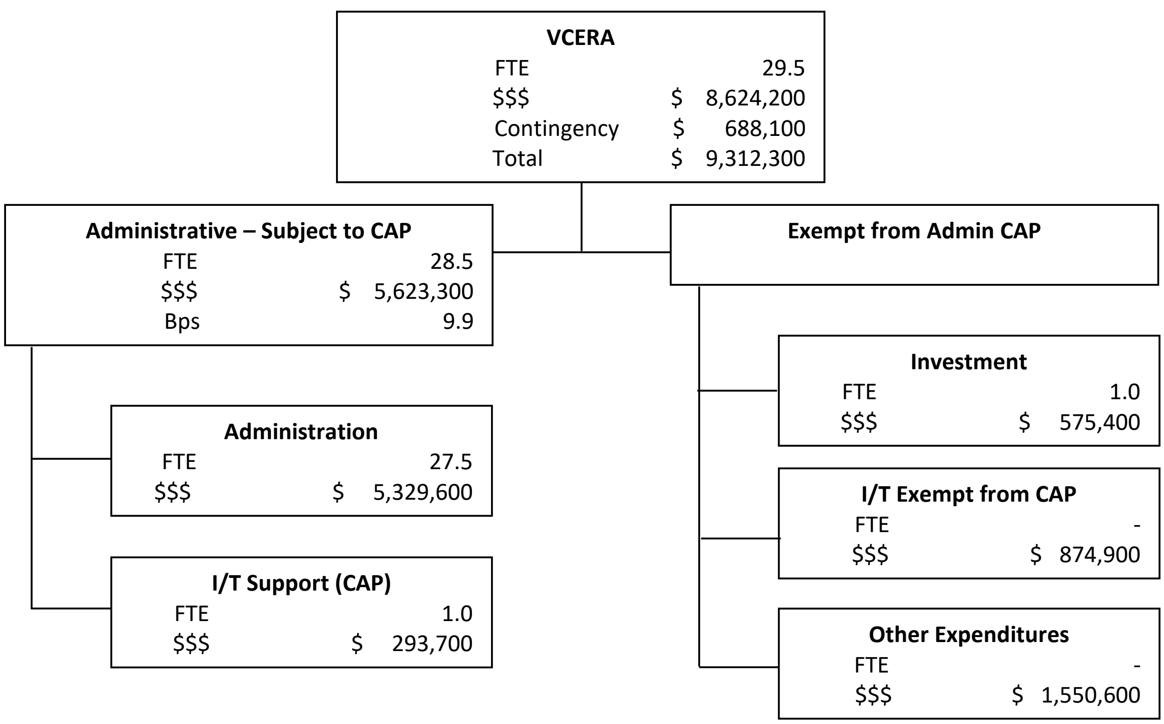
While including qualified operating, investment and information technology costs in the administrative costs would not result in exceeding the CAP, such qualified excludable operating, investment and information technology costs are identified separately and disclosed in the attached proposed budget schedules for the Board's information. This also serves to make future budgets more comparable. Further, staff has included a contingency line item in the Budget equal to ten percent (10%) of the Total Proposed Budget less total Extra-Help costs, to arrive at an adjusted total (further reduced by total Extra-Help costs, per prior Board direction). While inclusion of the contingency in the administrative costs would not result in exceeding the CAP, it is separately identified and disclosed in the attached proposed operating budget because it is not a cost of administration until a later budget revision incorporates all or a portion of it into the administrative budget.

VCERA Budget at a Glance

The following chart highlights the VCERA ***total*** proposed operating budget comprised of Administrative (Administration and IT-Support), all information technology (IT) costs, Investment, and Other Expenditures budgets, inclusive of proposed contingency. IT costs are separately identified as subject to (“IT–Support”) and not subject to (“IT–Exempt-CAP”) the CAP.

The total proposed Operating Budget for Fiscal Year (FY) 2018-19 is $9,312,300 an increase of $213,000 (2.4%) from the prior year adjusted budget and includes funding for 29.5 Full Time Equivalent (FTE) positions. When adjusting for the effects of contingency, the overall increase is $57,700 (0.7%) from the prior year adjusted budget. The amount includes administrative expenditures, information technology costs, investment, other expenditures and contingency. The details of the proposed increase will be discussed in the respective Administrative, Technology, Investments and Other Expenditures budget sections that follow.

In addition, the Administrative budget shows a basis point calculation against Association actuarial liabilities. Administrative costs, when compared to the statutory provisions, total $5,623,300 and 9.9 bps.



Administrative Budget

The Administrative Budget is comprised of an Administration and Information Technology (IT)-Support subdivision, each comprised of Salaries and Benefits, Services and Supplies, and Technology (subject to CAP). For fiscal year 2018-19, we continue to create separate budgets to identify IT expenditures included and excluded from the CAP. As previously discussed, included in the IT-Support budget are technology expenditures that are subject to the CAP. Where it is not clear whether an IT expenditure should be included or excluded from the CAP, staff will take the conservative view and include the expenditure within the IT-Support subdivision of the Administrative budget.

Salaries and Benefits:

Salaries and Benefits in the proposed 2018-19 Administrative budget are $4,551,600, reflecting an increase of $481,100 or 10.6%, as compared to the prior fiscal year ***adjusted*** budget. When adjusting for the mid-year transfer of budgeted appropriations of $375,000 from Salary and Benefits to other expenditure categories to cover anticipated shortfalls, the net increase was $106,100 (or 2.4%) and is attributable to scheduled merit increases and increased benefit costs. Also, the Salary and Benefits of the Chief Investment Officer (CIO) are budgeted in the Investment budget. In addition, included in the proposed budget, staff is requesting the following position changes:

Deletions:

1.0	Deputy Chief Information Officer

Additions:

1.0	Manager Application Development (Chief Technology Officer)

Potential IT Needs - During the budget year, staff may recommend the addition of staffing in the area of database administration to pursue a more cost-effective solution for system improvements and/or modifications. Such a step would allow VCERA to pursue a co-development agreement with Vitech and allow for more flexibility with ongoing V3 needs.

Finally, staff is requesting $158,500 in Extra-Help resources which is $35,900 below last year's adjusted budget amount. Specific support they would provide consists of: 1) continued assistance to System Administrators with remaining cutover tasks and post Go-Live data clean-up efforts; and 2) expert assistance and support with the ongoing corrections, review and validation of the active payroll transmittal file, and; 3) training of VCERA and Auditor-Controller staff on the transmittal audit and review to mitigate future need for extra help.

A vacant Office Assistant position was filled this current fiscal year, which eliminated the need for one of the extra-help resources employed by Volt. The two remaining higher-level resources are required for the specialized tasks indicated above. We believe these resources are a cost effective solution to continue mitigating risk to VCERA.

Services and Supplies Changes:

The total Administrative Services and Supplies proposed for Fiscal Year 2018-19 is $1,016,000, a decrease of $152,400 (13.0%) from the prior fiscal year. The decrease ($152,400) included reductions in legal ($75,000), other professional services ($50,900), non-capital furniture ($25,000), training/travel staff ($24,600), hearing officer fees ($10,000) offset with increases in non-capital equipment $13,900, rents/leases structures $7,700, general liability insurance $5,600, auditing $5,400, with minor variances in the remaining accounts.

<u>Technology</u>

The Technology section of the proposed budget is comprised of Information Technology (IT) expenditures that are subject to the statutory CAP, and those that are excludible but included in the Administrative budget, pursuant to Government Code section 31580.2(b). The total proposed Technology budget for FY 2018-19 is $930,600, comprised of Administrative IT-Support of $55,700 and IT-Exempt from CAP of $874,900, a decrease of $402,400 (30.2%) from the prior year adjusted budget. The decrease is primarily related to the Pension Administration System (V3) reduced maintenance and support due to continued system fixes and completion of prioritized enhancements. Included in this year's budget is $559,900 for V3 costs for annual upgrade/maintenance fee ($157,500), hosting ($251,800), maintenance and support of the new system and programming enhancements ($308,000) identified over the course of the project and not included in the original scope. The $308,000 for maintenance and support and programming enhancements is for 1,400 hours at the current hourly rate ($220), which represents staff's best projection of anticipated programming changes/enhancements for the fiscal year.

Examples of other requests included in the budget are $17,500 to increase the capacity of our existing server, $16,500 to replace the back-up server and $15,000 for additional upgrades to the new financial account structure in VCERA's financial accounting system.

<u>Investment Budget</u>

The proposed Investment budget for Fiscal Year 2018-19 is $575,400, an increase of $95,300 (19.9%) from the prior year. The budget includes Salary and Benefits for the CIO, as well as the CIO's projections of investment-related expenditures (legal fees, investment-related travel, etc.).

<u>Other Expenditures Budget</u>

The Other Expenditures Budget captures expenditures that are not subject to the CAP pursuant to Government Code section 31596.1, but are not considered to be within the IT-Exempt or Investment Budget categories. In the Proposed Other Expenditures Budget included are Actuarial Services and Depreciation/Amortization (V3 system) totaling $1,550,600 an increase of $36,100 or 2.3% from the prior year adjusted budget. Future expenditures that do not meet the definition to be included in the other budgets will be budgeted in the Other Expenditures budget.

Contingency and Other Considerations

The contingency is set at ten percent (10%), but otherwise follows the existing methodology. Staff believes this to be a prudent budget practice. Contingency continues to require Board action for any transfer and use, and the Board maintains its full discretion and management over the use of these funds.

RECOMMENDED ACTIONS:

1. Adopt proposed 2018-2019 Operating Budget, including a contingency of 10%.

2. Approve the deletion of one allocation with the following payroll title and salary range:

Job Code	**Description**	**FTE**	**Salary (S) Range (Annual)**
00110	Deputy Chief Information Officer	1.0	$116,427.12 - $163,012.20

3. Approve the addition of one allocation with the following payroll title and salary range:

Job Code	**Description**	**FTE**	**Salary (S) Range (Annual)**
01617	Manager Application Development (Chief Technology Officer)	1.0	$102,547.56 - $143,580.60

We would be pleased to respond to any questions you may have on this matter.

Sincerely,

Linda Webb
Retirement Administrator

Henry C. Solis, CPA
Chief Financial Officer

Attachment – Proposed Budget

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

PROPOSED OPERATING BUDGET

FISCAL YEAR 2018-19

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
STATUTORY LIMIT SCHEDULE
PROPOSED OPERATING BUDGET - FISCAL YEAR 2018 – 2019

Government Code section 31580.2 provides for the adoption by the Board of Retirement an annual budget covering the entire expense of administration. This expense of administration is a direct charge against the earnings of the fund and shall not exceed the greater of twenty-one hundredths of one percent of the accrued actuarial liability of the system or two million dollars ($2,000,000), as adjusted annually by the amount of the annual cost-of-living adjustment. Government Code section 31580.2(b) provides that expenditures for software, hardware and computer technology are not considered a cost of administration. The calculations of the maximum allowable budget and requested budget are summarized below.

	2017 -2018 ADOPTED	%	2017 -2018 ADJUSTED	%	2018-2019 PROPOSED	%
Accrued Actuarial Liability (6/30/16, 6/30/17)	$ 5,398,756,000	N/A	$ 5,398,756,000	N/A	$ 5,703,396,000	N/A
Allowable Budget for Cost of Administration (21/100 of 1.0%)	11,337,400	0.21%	11,337,400	0.21%	11,977,100	0.21%
Salaries and Benefits	$ 4,445,500	0.082%	$ 4,070,500	0.075%	4,551,600	0.080%
Services and Supplies	1,208,500	0.022%	1,168,400	0.022%	1,016,000	0.018%
Information Technology (IT) - Support	15,700	0.000%	55,800	0.001%	55,700	0.001%
Total Administrative (Subject to CAP)	$ 5,669,700	0.104%	$ 5,294,700	0.098%	$ 5,623,300	0.099%
Under Statutory Limitation	$ 5,667,700	0.105%	$ 6,042,700	0.112%	$ 6,353,800	0.111%
Expenditures Exempt from CAP:						
Investment	480,100	0.009%	480,100	0.009%	575,400	0.010%
Information Technology (IT) - Exempt-CAP	1,052,200	0.019%	1,277,200	0.024%	874,900	0.015%
Other Expenditures	1,364,500	0.025%	1,514,500	0.028%	1,550,600	0.027%
Total Expenditures Exempt from CAP	$ 2,896,800	0.053%	$ 3,271,800	0.061%	$ 3,000,900	0.052%
Combined:						
Administrative	$ 5,669,700	0.104%	$ 5,294,700	0.098%	$ 5,623,300	0.099%
Expenditures Exempt from CAP	2,896,800	0.053%	3,271,800	0.061%	3,000,900	0.052%
Contingency	532,800	0.010%	532,800	0.010%	688,100	0.012%
Total Budget	$ 9,099,300	0.167%	$ 9,099,300	0.169%	$ 9,312,300	0.163%

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
COMBINED UNITS
PROPOSED BUDGET
FISCAL YEAR 2018 - 2019

	2016-17 ACTUAL	2017-2018 ADJUSTED BUDGET	2017-2018 PROJECTED	2018-2019 PROPOSED Administration	2018-2019 PROPOSED IT Support	2018-2019 PROPOSED Investment	2018-2019 PROPOSED IT-Exempt-CAP	2018-2019 PROPOSED Other Expenditures	2018-2019 PROPOSED COMBINED	PROPOSED/ ADJUSTED VARIANCE	% INCREASE/ (DECREASE)
Salaries and Benefits:											
Full-Time Equivalents	27.5	29.5	29.5	27.5	1.0	1.0	0.0	0.0	29.5	0.0	0.0%
Salaries:											
Regular Salary	$2,468,513	$2,826,300	$2,791,030	$2,833,100	$144,200	$238,500	$0	$0	$3,215,800	$389,500	13.8%
Overtime	31	0	0	0	0	0	0	0	0	0	#DIV/0!
Extra-Help/Temporary Services	178,556	194,400	161,409	158,500	0	0	0	0	158,500	(35,900)	(18.5%)
Total Salaries	**2,647,101**	**3,020,700**	**2,952,439**	**2,991,600**	**144,200**	**238,500**	**0**	**0**	**3,374,300**	**353,600**	**11.7%**
Benefits:											
Supplemental Payments	48,960	59,900	45,905	58,500	5,000	0	0	0	63,500	3,600	6.0%
Vacation Redemption	176,817	139,500	137,648	146,800	0	0	0	0	146,800	7,300	5.2%
Retirement Contributions	441,046	481,200	478,760	501,100	25,800	19,100	0	0	546,000	64,800	13.5%
OASDI Contribution	142,762	171,600	152,513	178,800	9,900	8,000	0	0	196,700	25,100	14.6%
FICA-Medicare	38,630	48,100	44,739	49,200	2,300	4,000	0	0	55,500	7,400	15.4%
Medical Insurance	205,905	277,000	260,091	305,800	10,900	10,900	0	0	327,600	50,600	18.3%
Retiree Health Insurance	3,971	0	0	0	0	0	0	0	0	0	#DIV/0!
Life Insurance	1,089	1,300	1,153	1,100	0	0	0	0	1,100	(200)	(15.4%)
Unemployment Insurance	2,459	2,500	2,230	2,000	100	200	0	0	2,300	(200)	(8.0%)
Mgmt Disability Insurance	16,492	23,600	20,257	20,600	1,100	1,800	0	0	23,500	(100)	(0.4%)
Workers Compensation Insurance	20,339	23,500	21,553	21,100	1,200	1,300	0	0	23,600	100	0.4%
401K Plan Contribution	56,814	72,500	66,765	70,000	4,500	7,200	0	0	81,700	9,200	12.7%
Total Benefits	**1,155,283**	**1,300,700**	**1,231,614**	**1,355,000**	**60,800**	**52,500**	**0**	**0**	**1,468,300**	**167,600**	**12.9%**
Total Salaries & Benefits	**$3,802,384**	**$4,321,400**	**$4,184,053**	**$4,346,600**	**$205,000**	**$291,000**	**$0**	**$0**	**$4,842,600**	**$521,200**	**12.1%**
Services & Supplies:											
Board Member Stipend	$11,200	$13,200	$11,200	$13,200	$0	$0	$0	$0	$13,200	$0	0.0%
Other Professional Services	174,572	224,700	263,166	149,800	24,000	0	0	0	173,800	(50,900)	(22.7%)
Auditing	47,686	46,000	45,921	51,400	0	0	0	0	51,400	5,400	11.7%
Hearing Officers	35,061	60,000	40,035	50,000	0	0	0	0	50,000	(10,000)	(16.7%)
Temporary Services	0	0	0	0	0	0	0	0	0	0	#DIV/0!
Legal	291,949	350,000	307,610	75,000	0	200,000	0	0	275,000	(75,000)	(21.4%)
Election Services	8,000	9,000	9,000	12,000	0	0	0	0	12,000	3,000	33.3%
Actuary-Valuation	59,000	159,000	60,000	0	0	0	0	61,000	61,000	(98,000)	(61.6%)
Actuary-GASB 67	12,500	0	13,000	0	0	0	0	13,000	13,000	13,000	#DIV/0!
Actuary-Assump/Exp	0	0	45,000	0	0	0	0	0	0	0	#DIV/0!
Actuary-415 Calculation	0	0	0	0	0	0	0	0	0	0	#DIV/0!
Actuary-Misc Hrly Consult	18,660	0	31,544	0	0	0	0	16,000	16,000	16,000	#DIV/0!
Actuary-Actuarial Audit	0	42,000	49,000	0	0	0	0	0	0	(42,000)	(100.0%)
Printing	12,228	33,000	18,024	33,000	0	0	0	0	33,000	0	0.0%
Postage	69,585	71,400	46,197	70,000	0	0	0	0	70,000	(1,400)	(2.0%)
Copy Machine	2,524	4,000	3,976	3,000	0	0	0	0	3,000	(1,000)	(25.0%)
Insurance - General Liability	13,079	9,500	9,488	15,100	0	0	0	0	15,100	5,600	58.9%
Insurance - Fiduciary Liability	84,588	85,000	84,496	86,000	0	0	0	0	86,000	1,000	1.2%
Cost Allocation Charges	89,508	33,500	33,470	30,200	0	0	0	0	30,200	(3,300)	(9.9%)
Education Allowance	2,000	6,000	4,000	4,000	0	0	0	0	4,000	(2,000)	(33.3%)
Training/Travel-Staff	99,529	54,200	40,098	41,400	6,700	28,000	0	0	76,100	21,900	40.4%

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
COMBINED UNITS
PROPOSED BUDGET
FISCAL YEAR 2018 - 2019

	2016-17 ACTUAL	2017-2018 ADJUSTED BUDGET	2017-2018 PROJECTED	2018-2019 PROPOSED Administration	2018-2019 PROPOSED IT Support	2018-2019 PROPOSED Investment	2018-2019 PROPOSED IT-Exempt-CAP	2018-2019 PROPOSED Other Expenditures	2018-2019 PROPOSED COMBINED	PROPOSED/ ADJUSTED VARIANCE	% INCREASE/ (DECREASE)
Training/Travel-Trustee	0	53,100	27,641	28,500	0	25,000	0	0	53,500	400	0.8%
Travel-Due Diligence-Staff	0	0	6,854	0	0	7,800	0	0	7,800	7,800	#DIV/0!
Travel-Due Diligence-Trustee	0	19,400	9,433	0	0	13,400	0	0	13,400	(6,000)	(30.9%)
Mileage-Staff	7,481	8,500	3,485	3,500	300	1,000	0	0	4,800	(3,700)	(43.5%)
Mileage -Trustee	0	0	3,305	4,000	0	1,000	0	0	5,000	5,000	#DIV/0!
Mileage-Due Diligence-Staff	0	0	736	0	0	1,000	0	0	1,000	1,000	#DIV/0!
Mileage-Due Diligence-Trustee	0	0	700	0	0	1,000	0	0	1,000	1,000	#DIV/0!
Auto Allowance	5,700	6,900	6,900	6,900	0	0	0	0	6,900	0	0.0%
Facilities-Security	3,363	3,700	2,600	2,400	300	0	0	0	2,700	(1,000)	(27.0%)
Facilities-Maint & Repairs	300	0	2,041	1,500	800	0	0	0	2,300	2,300	#DIV/0!
Equipment-Maint & Repairs	747	2,000	1,000	2,000	0	0	0	0	2,000	0	0.0%
General Office Expense	0	6,000	9,302	8,000	0	2,400	0	0	10,400	4,400	73.3%
Books & Publications	1,553	2,500	1,850	1,500	500	500	0	0	2,500	0	0.0%
Office Supplies	15,144	18,000	13,621	18,000	0	0	0	0	18,000	0	0.0%
Memberships & Dues	13,587	13,300	12,685	9,800	400	3,300	0	0	13,500	200	1.5%
Bank Service Charges	0	0	1,396	1,500	0	0	0	0	1,500	1,500	#DIV/0!
Offsite Storage	4,242	4,800	4,792	4,800	0	0	0	0	4,800	0	0.0%
Claims, Judgements & Court Ord	0	0	0	0	0	0	0	0	0	0	#DIV/0!
Rents/Leases-Equipment	0	0	0	0	0	0	0	0	0	0	#DIV/0!
Rents/Leases-Structures	205,463	209,900	209,816	217,600	0	0	0	0	217,600	7,700	3.7%
Non-Capital Equipment	15,332	10,000	0	23,900	0	0	0	0	23,900	13,900	139.0%
Non-Capital Furniture	1,659	40,000	19,520	15,000	0	0	0	0	15,000	(25,000)	(62.5%)
Depreciation /Amortization	0	1,313,500	1,450,738	0	0	0	0	1,460,600	1,460,600	147,100	11.2%
Total Services & Supplies	**$1,306,239**	**$2,912,100**	**$2,903,640**	**$983,000**	**$33,000**	**$284,400**	**$0**	**$1,550,600**	**$2,851,000**	**($61,100)**	**(2.1%)**
Total Sal, Ben, Serv & Supp	**$5,108,622**	**$7,233,500**	**$7,087,693**	**$5,329,600**	**$238,000**	**$575,400**	**$0**	**$1,550,600**	**$7,693,600**	**$460,100**	**6.4%**
Technology:											
Technology-Hardware	9,863	$49,500	$46,878	$0	$0	$0	$67,100	$0	$67,100	$17,600	35.6%
Technology-Hardware Support	0	5,000	4,103	0	0	0	0	0	0	(5,000)	(100.0%)
Technology-Software	250,568	213,000	212,129	0	0	0	214,600	0	214,600	1,600	0.8%
Technology-Software Support	0	19,000	18,314	0	0	0	15,500	0	15,500	(3,500)	(18.4%)
Technology-Systems Support	293,973	293,400	288,601	0	0	0	266,800	0	266,800	(26,600)	(9.1%)
Technology-Infrastructure Suppor	11,658	300	305	0	0	0	500	0	500	200	66.7%
Technology-Application Support	1,370,305	647,000	636,066	0	0	0	310,400	0	310,400	(336,600)	(52.0%)
Technology-Data Communication	36,965	55,800	53,797	0	55,700	0	0	0	55,700	(100)	(0.2%)
Total Technology	$1,973,332	$1,283,000	$1,260,193	$0	$55,700	$0	$874,900	$0	$930,600	($352,400)	(27.5%)

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
COMBINED UNITS
PROPOSED BUDGET
FISCAL YEAR 2018 - 2019

	2016-17 ACTUAL	2017-2018 ADJUSTED BUDGET	2017-2018 PROJECTED	2018-2019 PROPOSED Administration	2018-2019 PROPOSED IT Support	2018-2019 PROPOSED Investment	2018-2019 PROPOSED IT-Exempt-CAP	2018-2019 PROPOSED Other Expenditures	2018-2019 PROPOSED COMBINED	PROPOSED/ ADJUSTED VARIANCE	% INCREASE/ (DECREASE)
Capitalized Expenses:											
Capitalized Structures	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	#DIV/0!
Capitalized Equipment	0	0	0	0	0	0	0	0	0	0	#DIV/0!
Capitalized Furniture	0	0	0	0	0	0	0	0	0	0	#DIV/0!
Capitalized IT Hardware	0	50,000	49,278	0	0	0	0	0	0	(50,000)	(100.0%)
Capitalized IT Software	0	0	6	0	0	0	0	0	0	0	#DIV/0!
Total Capitalized Expenses	$0	$50,000	$49,284	$0	$0	$0	$0	$0	$0	($50,000)	(100.0%)
Total Before Contingency	$7,081,954	$8,566,500	$8,397,170	$5,329,600	$293,700	$575,400	$874,900	$1,550,600	$8,624,200	$57,700	0.7%
Congtingency	296,600	532,800	532,800						688,100	155,300	29.1%
Total	**$7,378,554**	**$9,099,300**	**$8,929,970**	**$5,329,600**	**$293,700**	**$575,400**	**$874,900**	**$1,550,600**	**$9,312,300**	**$213,000**	**2.4%**

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

POSITION DETAIL BY CLASSIFICATION

FISCAL YEAR 2018-19 - PROPOSED

Position Code	Position/Class	Biweekly Salary Range**		ADOPTED FY 2017-18		ADJUSTED FY 2017-18		PROPOSED FY 2018-19	
				FTE	POS	FTE	POS	FTE	POS
00110	Deputy Chief Info Officer	4,477.97	6,269.70	1.0	1.0	1.0	1.0	0.0	0.0
00623	Benefits Specialist (Program Administrator II)	2,512.81	3,518.28	13.0	13.0	13.0	13.0	13.0	13.0
00912	Senior Accountant - MB	2,521.66	3,530.33	1.0	1.0	1.0	1.0	1.0	1.0
00946	Manager, Accounting I	3,104.14	4,345.80	1.0	1.0	1.0	1.0	1.0	1.0
00981	Chief Financial Officer - Retirement	4,660.20	7,603.85	1.0	1.0	1.0	1.0	1.0	1.0
00982	General Counsel - Retirement	6,081.86	9,110.41	1.0	1.0	1.0	1.0	1.0	1.0
00983	Retirement Chief Operations Officer	3,799.16	6,695.28	1.0	1.0	1.0	1.0	1.0	1.0
00984	Retirement Chief Investment Officer	4,822.14	9,110.41	1.0	1.0	1.0	1.0	1.0	1.0
01174	Communications Officer (Senior Program Administrator)	2,956.59	4,139.64	1.0	1.0	1.0	1.0	1.0	1.0
01174	Senior Program Administrator	2,956.59	4,139.64	2.0	2.0	2.0	2.0	2.0	2.0
01350	Office Assistant III - Confidential	1,569.25	2,197.16	2.0	2.0	2.0	2.0	2.0	2.0
01318	Legal Management Asst III-C	1,961.51	2,746.11	0.5	0.5	0.5	0.5	0.5	0.5
01489	Program Assistant-NE	2,284.52	3,198.64	1.0	1.0	1.0	1.0	1.0	1.0
01617	Chief Technology Officer (Mgr Application Development)	3,944.14	5,522.33	0.0	0.0	0.0	0.0	1.0	1.0
01710	Benefits Manager (Staff Services Manager II)	2,956.59	4,139.64	2.0	2.0	2.0	2.0	2.0	2.0
01814	Retirement Administrator	6,458.68	10,096.13	1.0	1.0	1.0	1.0	1.0	1.0
	Total			29.5	29.5	29.5	29.5	29.5	29.5

Note ** - In January 2019 all classifications, except for VCERA appointed employees, will receive general cost of living increase of 1.5%. The bi-weekly salary range in this schedule does not reflect the general cost of living adjustements. However, they are incorporated into the Salaries and Benefits in the proposed budget.

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ADMINISTRATION
PROPOSED BUDGET
FISCAL YEAR 2018 - 2019

	2016-17 ACTUAL	2017-2018 ADJUSTED BUDGET	2017-2018 PROJECTED	2018-2019 PROPOSED	PROPOSED/ ADJUSTED VARIANCE	% INCREASE/ (DECREASE)
Salaries and Benefits:						
Full-Time Equivalents	25.5	27.5	27.5	27.5	0.0	0.0%
Salaries:						
Regular Salary	$2,285,525	$2,555,500	$2,579,708	$2,833,100	$277,600	10.9%
Overtime	31	0	0	0	0	#DIV/0!
Extra-Help/Temporary Services	178,556	194,400	161,409	158,500	(35,900)	(18.5%)
Total Salaries	**2,464,113**	**2,749,900**	**2,741,117**	**2,991,600**	**241,700**	**8.8%**
Benefits:						
Supplemental Payments	47,392	57,500	45,530	58,500	1,000	1.7%
Vacation Redemption	176,817	139,500	137,648	146,800	7,300	5.2%
Retirement Contributions	418,400	449,400	456,085	501,100	51,700	11.5%
OASDI Contribution	134,408	159,300	143,564	178,800	19,500	12.2%
FICA-Medicare	35,647	44,200	41,648	49,200	5,000	11.3%
Medical Insurance	197,465	262,100	249,550	305,800	43,700	16.7%
Retiree Health Insurance	3,971	0	0	0	0	#DIV/0!
Life Insurance	1,044	1,300	1,107	1,100	(200)	(15.4%)
Unemployment Insurance	2,273	2,200	2,061	2,000	(200)	(9.1%)
Mgmt Disability Insurance	15,422	21,500	18,811	20,600	(900)	(4.2%)
Workers Compensation Insurance	19,216	21,900	20,465	21,100	(800)	(3.7%)
401K Plan Contribution	51,532	64,300	60,414	70,000	5,700	8.9%
Total Benefits	**1,103,586**	**1,223,200**	**1,176,882**	**1,355,000**	**131,800**	**10.8%**
Total Salaries & Benefits	**$3,567,699**	**$3,973,100**	**$3,917,999**	**$4,346,600**	**$373,500**	**9.4%**
Services & Supplies:						
Board Member Stipend	$11,200	$13,200	$11,200	$13,200	$0	0.0%
Other Professional Services	113,462	134,700	135,721	149,800	15,100	11.2%
Auditing	47,686	46,000	45,921	51,400	5,400	11.7%
Hearing Officers	35,061	60,000	40,035	50,000	(10,000)	(16.7%)
Legal	291,949	150,000	74,670	75,000	(75,000)	(50.0%)
Election Services	8,000	9,000	9,000	12,000	3,000	33.3%
Actuary-Valuation	0	0	0	0	0	#DIV/0!
Actuary-GASB 67	0	0	0	0	0	#DIV/0!
Actuary-Assump/Exp	0	0	0	0	0	#DIV/0!
Actuary-415 Calculation	0	0	0	0	0	#DIV/0!
Actuary-Misc Hrly Consult	0	0	0	0	0	#DIV/0!
Actuary-Actuarial Audit	0	0	0	0	0	#DIV/0!
Advertising	0	0	0	0	0	#DIV/0!
Printing	12,228	33,000	18,024	33,000	0	0.0%
Postage	69,585	71,400	46,197	70,000	(1,400)	(2.0%)
Courier	0	0	0	0	0	#DIV/0!
Telephone	0	0	0	0	0	#DIV/0!
Copy Machine	2,524	4,000	3,976	3,000	(1,000)	(25.0%)
Insurance - General Liability	13,079	9,500	9,488	15,100	5,600	58.9%
Insurance - Fiduciary Liability	84,588	85,000	84,496	86,000	1,000	1.2%
Cost Allocation Charges	89,508	33,500	33,470	30,200	(3,300)	(9.9%)
Education Allowance	2,000	6,000	4,000	4,000	(2,000)	(33.3%)

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ADMINISTRATION
PROPOSED BUDGET
FISCAL YEAR 2018 - 2019

	2016-17 ACTUAL	2017-2018 ADJUSTED BUDGET	2017-2018 PROJECTED	2018-2019 PROPOSED	PROPOSED/ ADJUSTED VARIANCE	% INCREASE/ (DECREASE)
Training/Travel-Staff	99,529	41,500	37,098	41,400	(100)	(0.2%)
Training/Travel-Trustee	0	53,100	27,641	28,500	(24,600)	(46.3%)
Travel-Due Diligence-Staff	0	0	0	0	0	#DIV/0!
Travel-Due Diligence-Trustee	0	0	0	0	0	#DIV/0!
Mileage-Staff	7,481	8,500	3,485	3,500	(5,000)	(58.8%)
Mileage -Trustee	0	0	3,305	4,000	4,000	#DIV/0!
Mileage-Due Diligence-Staff	0	0	0	0	0	#DIV/0!
Mileage-Due Diligence-Trustee	0	0	0	0	0	#DIV/0!
Auto Allowance	5,700	6,900	6,900	6,900	0	0.0%
Facilities-Security	2,563	2,600	2,270	2,400	(200)	(7.7%)
Facilities-Maint & Repairs	300	0	1,641	1,500	1,500	#DIV/0!
Equipment-Maint & Repairs	747	2,000	1,000	2,000	0	0.0%
General Office Expense	0	6,000	7,705	8,000	2,000	33.3%
Books & Publications	1,553	1,500	1,050	1,500	0	0.0%
Office Supplies	15,144	18,000	13,171	18,000	0	0.0%
Memberships & Dues	13,437	9,800	9,085	9,800	0	0.0%
Bank Service Charges	0	0	1,396	1,500	1,500	#DIV/0!
Offsite Storage	4,242	4,800	4,792	4,800	0	0.0%
Claims, Judgements & Court Ord	0	0	0	0	0	#DIV/0!
Rents/Leases-Equipment	0	0	0	0	0	#DIV/0!
Rents/Leases-Structures	205,463	209,900	209,816	217,600	7,700	3.7%
Non-Capital Equipment	15,332	10,000	0	23,900	13,900	139.0%
Non-Capital Furniture	1,659	40,000	19,520	15,000	(25,000)	(62.5%)
Depreciation /Amortization	0	0	0	0	0	#DIV/0!
Total Services & Supplies	**$1,154,019**	**$1,069,900**	**$866,073**	**$983,000**	**($86,900)**	**(8.1%)**
Total Sal, Ben, Serv & Supp	**$4,721,717**	**$5,043,000**	**$4,784,072**	**$5,329,600**	**$286,600**	**5.7%**
Technology:						
Technology-Hardware	$0	$0	$0	$0	$0	#DIV/0!
Technology-Hardware Support	0	0	0	0	0	#DIV/0!
Technology-Software	0	0	0	0	0	#DIV/0!
Technology-Software Support	0	0	0	0	0	#DIV/0!
Technology-Systems Support	0	0	0	0	0	#DIV/0!
Technology-Infrastructure Support	0	0	0	0	0	#DIV/0!
Technology-Application Support	0	0	0	0	0	#DIV/0!
Technology-Data Communication	0	12,900	0	0	(12,900)	(100.0%)
Total Technology	**$0**	**$12,900**	**$0**	**$0**	**($12,900)**	**(100.0%)**
Capitalized Expenses:						
Capitalized Structures	$0	$0	$0	$0	$0	#DIV/0!
Capitalized Equipment	0	0	0	0	0	#DIV/0!
Capitalized Furniture	0	0	0	0	0	#DIV/0!
Capitalized IT Hardware	0	0	0	0	0	#DIV/0!
Capitalized IT Software	0	0	0	0	0	#DIV/0!
Total Capitalized Expenses	**$0**	**$0**	**$0**	**$0**	**$0**	#DIV/0!
Total	**$4,721,717**	**$5,055,900**	**$4,784,072**	**$5,329,600**	**$273,700**	**5.4%**

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ADMINISTRATION
PROPOSED BUDGET
FISCAL YEAR 2018 - 2019
DETAILED BY ACCOUNT

	2016-17 ACTUAL	2017-2018 ADJUSTED BUDGET	2017-2018 PROJECTED	2018-2019 PROPOSED	PROPOSED/ ADJUSTED VARIANCE	% INCREASE/ (DECREASE)
Services & Supplies						
Board Member Stipend	$11,200	$13,200	$11,200	$13,200	$0	0.0%
Other Professional Services	113,462	134,700	135,721	149,800	15,100	11.2%
Retiree Payroll Processing (ADP)				36,000		
Court Reporters (Personal Reporters)				12,000		
Document Shredding Svcs (Shred-It)				2,000		
Employee Health Services (New Hires)				3,000		
Member Benefit Statements (Towers Watson)				45,000		
Death Audit Service (PBI)				1,800		
CAFR Annual Report				5,000		
Architect for space requirements				15,000		
Disability Medical rexamination services				5,000		
Miscellaneous				25,000		
Auditing	47,686	46,000	45,921	51,400	5,400	11.7%
Financial (Brown Armstrong)						
Hearing Officers	35,061	60,000	40,035	50,000	(10,000)	(16.7%)
Temporary Services	0	0	0	0	0	#DIV/0!
Legal	291,949	150,000	74,670	75,000	(75,000)	(50.0%)
Outside Counsel (Tax and Fiduciary)						
Election Services	8,000	9,000	9,000	12,000	3,000	33.3%
Trustee Elections (County Elections Division)						
Printing	12,228	33,000	18,024	33,000	0	0.0%
Printing of business cards, envelopes, Board election material, newsletter,						
ISF Charges: County Graphics service charges for printing employee				18,000		
handbooks, 1099Rs, forms, disability packets, etc.						
Member self-service outreach, notifications, etc.				15,000		
Postage	69,585	71,400	46,197	70,000	(1,400)	(2.0%)
Mailing of monthly retirement checks, correspondence, 1099-Rs, mailroom				55,000		
delivery charges, special mailings (including elections & newsletter), and FedEx.						
Sself-service outreach				15,000		
Copy Machine	2,524	4,000	3,976	3,000	(1,000)	(25.0%)
Insurance - General Liability	13,079	9,500	9,488	15,100	5,600	58.9%
County Executive Office (Risk Management): includes liability claims processing						
and management, legal defense, insurance purchase for general liability and						
automobile. Budget amount provided by County CEO's office.						
Insurance - Fiduciary Liability	84,588	85,000	84,496	86,000	1,000	1.2%
Cost allocation charges	89,508	33,500	33,470	30,200	(3,300)	(9.9%)
Cost allocation charges include administrative service charges for the County						
Executive Office - HR and Auditor-Controller.						
Education Allowance	2,000	6,000	4,000	4,000	(2,000)	(33.3%)
Textbook and Tuition reimbursement						
Training/Travel-Staff	99,529	41,500	37,098	41,400	(100)	(0.2%)
Staff conference, training, and travel						
Training/Travel-Trustee	0	53,100	27,641	28,500	(24,600)	(46.3%)
Trustee conference, training, and travel						

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ADMINISTRATION
PROPOSED BUDGET
FISCAL YEAR 2018 - 2019
DETAILED BY ACCOUNT

	2016-17 ACTUAL	2017-2018 ADJUSTED BUDGET	2017-2018 PROJECTED	2018-2019 PROPOSED	PROPOSED/ ADJUSTED VARIANCE	% INCREASE/ (DECREASE)
Travel-Due Diligence-Staff	0	0	0	0	0	#DIV/0!
Travel-Due Diligence-Trustee	0	0	0	0	0	#DIV/0!
Mileage-Staff	7,481	8,500	3,485	3,500	(5,000)	(58.8%)
Mileage -Trustee	0	0	3,305	4,000	4,000	#DIV/0!
Mileage-Due Diligence-Staff	0	0	0	0	0	#DIV/0!
Mileage -Due Diligence-Trustee	0	0	0	0	0	#DIV/0!
Auto Allowance	5,700	6,900	6,900	6,900	0	0.0%
Auto allowance - Administrator						
Facilities-Security	2,563	2,600	2,270	2,400	(200)	(7.7%)
Security card access readers						
Facilities-Maint & Repairs	300	0	1,641	1,500	1,500	#DIV/0!
Equipment-Maint & Repairs	747	2,000	1,000	2,000	0	0.0%
General Office Expense	0	6,000	7,705	8,000	2,000	33.3%
Employee service awards, board retreat, water service, etc., GFOA CAFR Cert						
Books & Publications	1,553	1,500	1,050	1,500	0	0.0%
Publications include Public Retirement Journal, IFEBP Benefits Quarterly. GFOA Reference Material, Ventura Star, Human Resource and other reference material						
Office Supplies	15,144	18,000	13,171	18,000	0	0.0%
Office supplies and printer toner				17,000		
Member outreach				1,000		
Memberships & Dues	13,437	9,800	9,085	9,800	0	0.0%
State Association of County Retirement Systems				4,000		
California Association of Public Retirement Systems				2,000		
International Foundation of Employee Benefit Plans				1,500		
Government Finance Officers Association				600		
National Association of Pension Plan Attorneys				500		
Other Memberships, License and Professional Dues (Org and eligible staff)				1,200		
Bank Service Charges	0	0	1,396	1,500	1,500	#DIV/0!
Outside bank service charges						
Offsite Storage	4,242	4,800	4,792	4,800	0	0.0%
Offsite storage of VCERA files						
Claims, Judgements & Court Ordered	0	0	0	0	0	#DIV/0!
Rents/Leases-Equipment	0	0	0	0	0	#DIV/0!

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ADMINISTRATION
PROPOSED BUDGET
FISCAL YEAR 2018 - 2019
DETAILED BY ACCOUNT

	2016-17 ACTUAL	2017-2018 ADJUSTED BUDGET	2017-2018 PROJECTED	2018-2019 PROPOSED	PROPOSED/ ADJUSTED VARIANCE	% INCREASE/ (DECREASE)
Rents/Leases-Structures	205,463	209,900	209,816	217,600	7,700	3.7%
Lease of Office Space from MF Daily, Inc.						
Suite 200 and 203 - 7,778 sq ft @ $1.92/sq ft for 9 months				134,400		
Suite 200 and 203 - 7,778 sq ft @ $1.98/sq ft (3% CPI) for 3 months				46,200		
Suite 204 - 755 sq ft @ $1.89/sq.ft. for 6 months				8,600		
Suite 204 - 755 sq ft @ $1.95 sq.ft. (3% CPI) for 6 months				9,100		
Suite 205 - 835 sq ft @ $1.89/sq.ft. for 5 months				7,900		
Suite 205 - 835 sq ft @ $1.95/sq.ft. (3% CPI) for 7 months				11,400		
Non-Capital Equipment	15,332	10,000	0	23,900	13,900	139.0%
Board Room Audio Visual System				13,900		
Other unanticipated needs				10,000		
Non-Capital Furniture	1,659	40,000	19,520	15,000	(25,000)	(62.5%)
Replacements (office chairs, file cabinets, etc.)						
Depreciation /Amortization	0	0	0	0	0	#DIV/0!
Total Services & Supplies	**$1,154,019**	**$1,069,900**	**$866,073**	**$983,000**	**($86,900)**	**(8.1%)**
Technology						
Technology-Hardware	$0	$0	$0	$0	$0	#DIV/0!
Technology-Hardware Support	0	0	0	0	0	#DIV/0!
Technology-Data Communication	0	12,900	0	0	0	0.0%
Technology-Hardware	0					
Total Technology	**$0**	**$12,900**	**$0**	**$0**	**$0**	**0.0%**
Total Expenditires	**$1,154,019**	**$1,082,800**	**$866,073**	**$983,000**	**($86,900)**	**113.5%**

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
INFORMATION TECHNOLOGY (I/T) SUPPORT (Subject to CAP)
PROPOSED BUDGET
FISCAL YEAR 2018 - 2019

	2016-17 ACTUAL	2017-2018 ADJUSTED BUDGET	2017-2018 PROJECTED	2018-2019 PROPOSED	PROPOSED/ ADJUSTED VARIANCE	% INCREASE/ (DECREASE)
Salaries and Benefits:						
Full-Time Equivalents	1.0	1.0	1.0	1.0	0.0	0.0%
Salaries:						
Regular Salary	$0	$68,500	$10,703	$144,200	$75,700	110.5%
Overtime	0	0	0	0	0	#DIV/0!
Extra-Help/Temporary Services	0	0	0	0	0	#DIV/0!
Total Salaries	**0**	**68,500**	**10,703**	**144,200**	**75,700**	**110.5%**
Benefits:						
Supplemental Payments	0	2,400	375	5,000	2,600	108.3%
Vacation Redemption	0	0	0	0	0	#DIV/0!
Retirement Contributions	0	12,600	1,964	25,800	13,200	104.8%
OASDI Contribution	0	4,400	687	9,900	5,500	125.0%
FICA-Medicare	0	1,000	161	2,300	1,300	130.0%
Medical Insurance	0	5,200	794	10,900	5,700	109.6%
Retiree Health Insurance	0	0	0	0	0	#DIV/0!
Life Insurance	0	0	3	0	0	#DIV/0!
Unemployment Insurance	0	100	9	100	0	0.0%
Mgmt Disability Insurance	0	500	83	1,100	600	120.0%
Workers Compensation Insurance	0	600	93	1,200	600	100.0%
401K Plan Contribution	0	2,100	332	4,500	2,400	114.3%
Total Benefits	**0**	**28,900**	**4,501**	**60,800**	**31,900**	**110.4%**
Total Salaries & Benefits	**$0**	**$97,400**	**$15,204**	**$205,000**	**$107,600**	**110.5%**
Services & Supplies:						
Board Member Stipend	$0	$0	$0	$0	$0	#DIV/0!
Other Professional Services	61,110	90,000	127,445	24,000	(66,000)	(73.3%)
Training/Travel-Staff	0	6,700	0	6,700	0	0.0%
Mileage-Staff	0	0	0	300	300	#DIV/0!
Facilities-Security	800	1,100	330	300	(800)	(72.7%)
Facilities-Maint & Repairs	0	0	400	800	800	#DIV/0!
Books & Publications	0	500	300	500	0	0.0%
Office Supplies	0	0	450	0	0	#DIV/0!
Memberships & Dues	150	200	300	400	200	100.0%
Depreciation /Amortization	0	0	0	0	0	#DIV/0!
Total Services & Supplies	**$62,060**	**$98,500**	**$129,225**	**$33,000**	**($65,500)**	**(66.5%)**
Total Sal, Ben, Serv & Supp	**$62,060**	**$195,900**	**$144,429**	**$238,000**	**$42,100**	**21.5%**
Technology:						
Technology-Hardware	$0	$0	$0	$0	$0	#DIV/0!
Technology-Infrastructure Support	11,465	0	0	0	0	#DIV/0!
Technology-Data Communication	36,965	42,900	53,797	55,700	12,800	29.8%
Total Technology	**$48,430**	**$42,900**	**$53,797**	**$55,700**	**$12,800**	**29.8%**
Total	**$110,490**	**$238,800**	**$198,226**	**$293,700**	**$54,900**	**23.0%**

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

INFORMATION TECHNOLOGY (I/T) SUPPORT (Subject to CAP)

PROPOSED BUDGET

FISCAL YEAR 2018 - 2019

DETAILED BY ACCOUNT

	2016-17 ACTUAL	2017-2018 ADJUSTED BUDGET	2017-2018 PROJECTED	2018-2019 PROPOSED	PROPOSED/ ADJUSTED VARIANCE	% INCREASE/ (DECREASE)
Services & Supplies						
Board Member Stipend	$0	$0	$0	$0	$0	#DIV/0!
Other Professional Services	61,110	90,000	127,445	24,000	(66,000)	(73.3%)
Contract IT Manager						
Training/Travel-Staff	0	6,700	0	6,700	0	0.0%
Technical training courses and PRISM conference.						
Mileage-Staff	0	0	0	300	300	#DIV/0!
Facilities-Security	800	1,100	330	300	(800)	(72.7%)
Security access						
Facilities-Maint & Repairs	0	0	400	800	800	#DIV/0!
Fire suppression inspection and HVAC service						
Books & Publications	0	500	300	500	0	0.0%
Technical references						
Office Supplies	0	0	450	0	0	#DIV/0!
Memberships & Dues	150	200	300	400	200	100.0%
Public Retirement Information Systems Management (PRISM)						
Depreciation /Amortization	0	0	0	0	0	#DIV/0!
Total Services & Supplies	**$62,060**	**$98,500**	**$129,225**	**$33,000**	**($65,500)**	**(66.5%)**
Technology						
Technology-Hardware	$0	$0	$0	$0	$0	#DIV/0!
Technology-Infrastructure Support	11,465	0	0	0	0	#DIV/0!
Technology-Data Communication	36,965	42,900	53,797	55,700	(1,903)	(4.4%)
Remote server access (DSL)				*3,600*		
Wi-Fi Internal				*7,300*		
Data Plan (iPads)				*4,800*		
Information Technology Service (ISF) Charges:						
Data Network Services				*10,500*		
Network System access (microwave) & Cyber Security				*16,100*		
Service Requests				*1,600*		
Voice, phone equipment & service requests				*11,800*		
Total Technology	**$48,430**	**$42,900**	**$53,797**	**$55,700**	**($1,903)**	**(4.4%)**
Total Expenditires	**$110,490**	**$141,400**	**$183,022**	**$88,700**	**($67,403)**	**48.5%**

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
INVESTMENT
PROPOSED BUDGET
FISCAL YEAR 2018 - 2019

	2016-17 ACTUAL	2017-2018 ADJUSTED BUDGET	2017-2018 PROJECTED	2018-2019 PROPOSED	PROPOSED/ ADJUSTED VARIANCE	% INCREASE/ (DECREASE)
Salaries and Benefits:						
Full-Time Equivalents	1.0	1.0	1.0	1.0	0.0	0.0%
Salaries:						
Regular Salary	$182,988	$202,300	$200,619	$238,500	$36,200	17.9%
Overtime	0	0	0	0	0	#DIV/0!
Extra-Help/Temporary Services	0	0	0	0	0	#DIV/0!
Total Salaries	**182,988**	**202,300**	**200,619**	**238,500**	**36,200**	**17.9%**
Benefits:						
Supplemental Payments	1,568	0	0	0	0	#DIV/0!
Vacation Redemption	0	0	0	0	0	#DIV/0!
Retirement Contributions	22,646	19,200	20,712	19,100	(100)	(0.5%)
OASDI Contribution	8,354	7,900	8,262	8,000	100	1.3%
FICA-Medicare	2,983	2,900	2,930	4,000	1,100	37.9%
Medical Insurance	8,440	9,700	9,747	10,900	1,200	12.4%
Retiree Health Insurance	0	0	0	0	0	#DIV/0!
Life Insurance	45	0	43	0	0	#DIV/0!
Unemployment Insurance	186	200	160	200	0	0.0%
Mgmt Disability Insurance	1,070	1,600	1,363	1,800	200	12.5%
Workers Compensation Insurance	1,123	1,000	996	1,300	300	30.0%
401K Plan Contribution	5,282	6,100	6,018	7,200	1,100	18.0%
Total Benefits	**51,697**	**48,600**	**50,231**	**52,500**	**3,900**	**8.0%**
Total Salaries & Benefits	**$234,685**	**$250,900**	**$250,850**	**$291,000**	**$40,100**	**16.0%**
Services & Supplies:						
Board Member Stipend	$0	$0	$0	$0	$0	#DIV/0!
Legal	0	200,000	232,940	200,000	0	0.0%
Training/Travel-Staff	0	6,000	3,000	28,000	22,000	366.7%
Training/Travel-Trustee	0	0	0	25,000	25,000	#DIV/0!
Travel-Due Diligence-Staff	0	0	6,854	7,800	7,800	#DIV/0!
Travel-Due Diligence-Trustee	0	19,400	9,433	13,400	(6,000)	(30.9%)
Mileage-Staff	0	0	0	1,000	1,000	#DIV/0!
Mileage -Trustee	0	0	0	1,000	1,000	#DIV/0!
Mileage-Due Diligence-Staff	0	0	736	1,000	1,000	#DIV/0!
Mileage-Due Diligence-Trustee	0	0	700	1,000	1,000	#DIV/0!
General Office Expense	0	0	1,597	2,400	2,400	#DIV/0!
Books & Publications	0	500	500	500	0	0.0%
Memberships & Dues	0	3,300	3,300	3,300	0	0.0%
Depreciation /Amortization	0	0	0	0	0	#DIV/0!
Total Services & Supplies	**$0**	**$229,200**	**$259,060**	**$284,400**	**$55,200**	**24.1%**
Total Sal, Ben, Serv & Supp	**$234,685**	**$480,100**	**$509,910**	**$575,400**	**$95,300**	**19.9%**
Technology:						
Technology-Hardware	$0	$0	$0	$0	$0	#DIV/0!
Technology-Data Communication	0	0	0	0	0	#DIV/0!
Total Technology	**$0**	**$0**	**$0**	**$0**	**$0**	**#DIV/0!**
Total	**$234,685**	**$480,100**	**$509,910**	**$575,400**	**$95,300**	**19.9%**

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
INVESTMENT
PROPOSED BUDGET
FISCAL YEAR 2018 - 2019
DETAILED BY ACCOUNT

	2016-17 ACTUAL	2017-2018 ADJUSTED BUDGET	2017-2018 PROJECTED	2018-2019 PROPOSED	PROPOSED/ ADJUSTED VARIANCE	% INCREASE/ (DECREASE)
Services & Supplies						
Board Member Stipend	$0	$0	$0	$0	$0	#DIV/0!
Legal	0	200,000	232,940	200,000	0	0.0%
Review private equity documents						
Training/Travel-Staff	0	6,000	3,000	28,000	22,000	366.7%
ILPA investment courses for CIO, Counsel and CFO. *ILPA Conference*						
Training/Travel-Trustee	0	0	0	25,000	25,000	#DIV/0!
Investment related conferences and seminars						
Travel-Due Diligence-Staff	0	0	6,854	7,800	7,800	#DIV/0!
Four investment manager due diligence trips.						
Travel-Due Diligence-Trustee	0	19,400	9,433	13,400	(6,000)	(30.9%)
Four investment manager due diligence trips for two trustees.						
Mileage-Staff	0	0	0	1,000	1,000	#DIV/0!
Mileage -Trustee	0	0	0	1,000	1,000	#DIV/0!
Mileage-Due Diligence-Staff	0	0	736	1,000	1,000	#DIV/0!
Mileage -Due Diligence-Trustee	0	0	700	1,000	1,000	#DIV/0!
General Office Expense	0	0	1,597	2,400	2,400	#DIV/0!
Annual investment retreat (75% investment related)						
Books & Publications	0	500	500	500	0	0.0%
Wall Street Journal						
Memberships & Dues	0	3,300	3,300	3,300	0	0.0%
ILPA and PRIA						
Depreciation /Amortization	0	0	0	0	0	#DIV/0!
Total Services & Supplies	**$0**	**$229,200**	**$259,060**	**$284,400**	**$55,200**	**24.1%**
Technology						
Technology-Hardware	$0	$0	$0	$0	$0	#DIV/0!
Technology-Data Communication	0	0	0	0	0	#DIV/0!
Total Technology	**$0**	**$0**	**$0**	**$0**	**$0**	**#DIV/0!**
Total Expenditires	**$0**	**$229,200**	**$259,060**	**$284,400**	**$55,200**	**109.8%**

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
INFORMATION TECHNOLOGY - EXEMPT-CAP
PROPOSED BUDGET
FISCAL YEAR 2018 - 2019

	2016-17 ACTUAL	2017-2018 ADJUSTED BUDGET	2017-2018 PROJECTED	2018-2019 PROPOSED	PROPOSED/ ADJUSTED VARIANCE	% INCREASE/ (DECREASE)
Technology:						
Technology-Hardware	$9,863	$49,500	$46,878	$67,100	$17,600	35.6%
Technology-Hardware Support	0	5,000	4,103	0	(5,000)	(100.0%)
Technology-Software	250,568	213,000	212,129	214,600	1,600	0.8%
Technology-Software Support	0	19,000	18,314	15,500	(3,500)	(18.4%)
Technology-Systems Support	293,973	293,400	288,601	266,800	(26,600)	(9.1%)
Technology-Infrastructure Support	193	300	305	500	200	66.7%
Technology-Application Support	1,370,305	647,000	636,066	310,400	(336,600)	(52.0%)
Technology-Data Communication	0	0	0	0	0	#DIV/0!
Total Technology	**$1,924,902**	**$1,227,200**	**$1,206,396**	**$874,900**	**($352,300)**	**(28.7%)**
Capitalized Expenses:						
Capitalized Structures	$0	$0	$0	$0	$0	#DIV/0!
Capitalized Equipment	0	0	0	0	0	#DIV/0!
Capitalized Furniture	0	0	0	0	0	#DIV/0!
Capitalized IT Hardware	0	50,000	49,278	0	(50,000)	(100.0%)
Capitalized IT Software	0	0	0	0	0	#DIV/0!
Total Capitalized Expenses	**$0**	**$50,000**	**$49,278**	**$0**	**($50,000)**	**(100.0%)**
Total	**$1,924,902**	**$1,277,200**	**$1,255,674**	**$874,900**	**($402,300)**	**(31.5%)**

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

INFORMATION TECHNOLOGY - EXEMPT-CAP

PROPOSED BUDGET

FISCAL YEAR 2018 - 2019

DETAILED BY ACCOUNT

	2016-17 ACTUAL	2017-2018 ADJUSTED BUDGET	2017-2018 PROJECTED	2018-2019 PROPOSED	PROPOSED/ ADJUSTED VARIANCE	% INCREASE/ (DECREASE)
Technology						
Technology-Hardware	$9,863	$49,500	$46,878	$67,100	$17,600	0
Computers (contingency or unplanned - 4)				6,000		
iPads (2 spare and 1 for Public Information Officer)				3,600		
Printers (Network, central workgroup and general area)				8,000		
Server Hardware (Increase capacity of existing server)				17,500		
Replace back-up server				16,500		
Computer supplies (UPS, cables, keyboards, mouse, etc)				12,000		
Network switch				3,500		
Technology-Hardware Support	0	5,000	4,103	0	(5,000)	(100.00%)
Technology- Software	250,568	213,000	212,129	214,600	1,600	0.8%
Financial accounting license				3,000		
Server Management software				2,500		
Microsoft Office 365 G1 and G3 licenses (County IT)				7,200		
Board books (agenda management) - Monthly subscription				15,500		
Board books (additional modules for enhanced functionality)				10,000		
Legal Documents (Perfect law) - Monthly subscription				2,400		
Legal research (Thomas Rueters - Westlaw) - Monthly subscription				5,600		
Vitech - V3 Upgrade fee				157,500		
Assima (1 license)				8,000		
Smartbear (2 concurrent licenses)				1,500		
Network componets monitoring software license				1,400		
Technology-Software Support	0	19,000	18,314	15,500	(3,500)	(18.4%)
Financial accounting system support (SBS & MSDN)				6,500		
Server software assurance				9,000		
Technology-Systems Support	293,973	293,400	288,601	266,800	(26,600)	(9.1%)
Accounting system enhancements				15,000		
V3 system hosting services				251,800		
Technology-Infrastructure Support	193	300	305	500	200	66.7%
Internet Domain Registrar				500		
Technology-Application Support	1,370,305	647,000	636,066	310,400	(336,600)	(52.0%)
Data Storage (Offsite)				2,400		
V3 system (maintenance) (1000 hours)				220,000		
V3 system (Member Portal/non approved enhancements)(400 hours)				88,000		
Technology-Data Communication	0	0	0	0	0	#DIV/0!
Total Technology	**$1,924,902**	**$1,227,200**	**$1,206,396**	**$874,900**	**($352,300)**	**(28.7%)**
Capitalized Expenses						
Capitalized Structures	$0	$0	$0	$0	$0	#DIV/0!

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

INFORMATION TECHNOLOGY - EXEMPT-CAP

PROPOSED BUDGET

FISCAL YEAR 2018 - 2019

DETAILED BY ACCOUNT

	2016-17 ACTUAL	2017-2018 ADJUSTED BUDGET	2017-2018 PROJECTED	2018-2019 PROPOSED	PROPOSED/ ADJUSTED VARIANCE	% INCREASE/ (DECREASE)
Capitalized Equipment	0	0	0	0	0	#DIV/0!
Capitalized Furniture	0	0	0	0	0	#DIV/0!
Capitalized IT Hardware	0	50,000	49,278	0	(50,000)	(100.0%)
Capitalized IT Software	0	0	0	0	0	#DIV/0!
Total Capitalized Expenses	**$0**	**$50,000**	**$49,278**	**$0**	**($50,000)**	**0.0%**
Total Expenditires	**$1,924,902**	**$1,277,200**	**$1,255,674**	**$874,900**	**($402,300)**	**69.7%**

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
OTHER EXPENDITURES
PROPOSED BUDGET
FISCAL YEAR 2018 - 2019

	2016-17 ACTUAL	2017-2018 ADJUSTED BUDGET	2017-2018 PROJECTED	2018-2019 PROPOSED	PROPOSED/ADJUSTED VARIANCE	% INCREASE/ (DECREASE)
Services & Supplies:						
Board Member Stipend	$0	$0	$0	$0	$0	#DIV/0!
Actuary-Valuation	59,000	159,000	60,000	61,000	(98,000)	(61.6%)
Actuary-GASB 67	12,500	0	13,000	13,000	13,000	#DIV/0!
Actuary-Assump/Exp	0	0	45,000	0	0	#DIV/0!
Actuary-415 Calculation	0	0	0	0	0	#DIV/0!
Actuary-Misc Hrly Consult	18,660	0	31,544	16,000	16,000	#DIV/0!
Actuary-Actuarial Audit	0	42,000	49,000	0	(42,000)	(100.0%)
Depreciation /Amortization	0	1,313,500	1,450,738	1,460,600	147,100	11.2%
Total Services & Supplies	**$90,160**	**$1,514,500**	**$1,649,282**	**$1,550,600**	**$36,100**	**2.4%**
Total	**$90,160**	**$1,514,500**	**$1,649,282**	**$1,550,600**	**$36,100**	**2.4%**

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

OTHER EXPENDITURES

PROPOSED BUDGET

FISCAL YEAR 2018 - 2019

DETAILED BY ACCOUNT

	2016-17 ACTUAL	2017-2018 ADJUSTED BUDGET	2017-2018 PROJECTED	2018-2019 PROPOSED	PROPOSED/ ADJUSTED VARIANCE	% INCREASE/ (DECREASE)
Services & Supplies						
Actuary- Valuation	59,000	159,000	60,000	61,000	(98,000)	(61.6%)
Actuary-GASB 67	12,500	0	13,000	13,000	13,000	#DIV/0!
Actuary-Assump/Exp	0	0	45,000	0	0	#DIV/0!
Actuary-415 Calcualation	0	0	0	0	0	#DIV/0!
Actuary-Misc Hrly Consult	18,660	0	31,544	16,000	16,000	#DIV/0!
Actuary-Actuarial Audit	0	42,000	49,000	0	(42,000)	(100.0%)
Depreciation /Amortization	0	1,313,500	1,450,738	1,460,600	(9,862)	100.7%
Total Services & Supplies	**$90,160**	**$1,514,500**	**$1,649,282**	**$1,550,600**	**($120,862)**	**(8.0%)**
Total Expenditires	**$90,160**	**$1,514,500**	**$1,649,282**	**$1,550,600**	**($120,862)**	**94.0%**

VCERA
VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

June 4, 2018

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

SUBJECT: RECOMMENDED ADOPTION OF GENERAL SALARY INCREASE AND FLEXIBLE BENEFITS PROGRAM CONTRIBUTION INCREASE TO CORRESPOND WITH COUNTY SCHEDULED CHANGES

Dear Board Members:

On April 10, 2018, the Ventura County Board of Supervisors approved a schedule for County employee general salary increases, as well as a schedule for increasing the Flexible Benefits Program biweekly amount. The supporting materials related to that action is provided.

Specifically, the Board of Supervisors approved:

1) A 1.5% general salary increase (GSI) to both the salary ranges of all classifications and the salaries of all employees covered by the Management, Confidential Clerical and Other Unrepresented Employees Resolution ("Resolution") (excluding Medical Residents), effective January 13, 2019.

2) A $50 per biweekly increase (from $397 to $447) to the Flexible Benefits Program contribution (generally referred to as the flex credit allowance) effective December 16, 2018 for the 2019 plan year (amending Section 501 of the Resolution).

The scheduled increase in flex credit allowance will automatically apply to VCERA's executive staff, as per the VCERA Management Employees' Resolution. However, general salary increases (GSIs) require Board approval.

In keeping with the Board of Retirement's intent to maintain a comparable compensation and benefit structure as the County of Ventura, staff recommends VCERA also adopt the County scheduled general salary increases.

RECOMMENDATION: APPROVE 1.5% GENERAL SALARY INCREASE (GSI) TO SALARY RANGES FOR CLASSIFICATIONS AND THE SALARIES OF ALL EMPLOYEES COVERED BY THE VCERA EMPLOYEES' MANAGEMENT RESOLUTION.

Sincerely,

Linda Webb

Linda Webb
Retirement Administrator

county of ventura

COUNTY EXECUTIVE OFFICE
MICHAEL POWERS
County Executive Officer

Mike Pettit
Assistant County Executive Officer

Catherine Rodriguez
County Chief Financial Officer

Shawn Atin
Assistant County Executive Officer/
Human Resources Director
Labor Relations

April 10, 2018

Board of Supervisors
County of Ventura
800 South Victoria Avenue
Ventura, California 93009

<u>Subject</u>: **Approval of a General Salary Increase and a Flexible Benefits Program Contribution Increase for Management, Confidential Clerical, and Other Unrepresented Employees.**

<u>Recommendation</u>

It is recommended that your Board:

1) Approve a 1.5% general salary increase (GSI) to both the salary ranges of all classifications and the salaries of all employees covered by the Management, Confidential Clerical and Other Unrepresented Employees Resolution (Resolution) (excluding Medical Residents), effective January 13, 2019.

2) Approve a $50 per biweek increase (from $397 to $447) to the Flexible Benefits Program contribution (generally referred to as the flex credit allowance) effective December 16, 2018 for the 2019 plan year (amending Section 501 of the Resolution).

As your Board's salary is set by County ordinance, the above salary increases will not affect your Board. However, the flex credit allowance increase will be granted to your Board as outlined in County Ordinance No. 4316.

General Salary/Flex Credit Allowance Increases
Fiscal/Mandates Impact

Mandatory:	No
Source of Funding:	All Funds
Funding Match Required:	None
Impact on other Departments:	Varies

Summary of Revenue/Costs

	FY'18-19
Revenues:	
Total Costs:	$2,178,660
Net County Cost:	$2,178,660

Fiscal Impact

California Government Code Sections 31515.5 and 23026 require that the County give written notice of any salary and benefit changes, including an explanation of the financial impact of the change on the funding of the County's retirement system. The recommended salary increases have an average annual value of 2.2% of payroll for FY 2018/19. This amount is below VCERA's actuarially assumed three and one-half percent (3.50%) annual increase and therefore is not expected to have a negative impact on the funding status of the retirement system.

Discussion

On December 6, 2016, your Board approved for management, confidential clerical, and other unrepresented employees several prudent and fiscally sustainable increases that would continue to promulgate the County's efforts for a structurally balanced budget, while also leading the rest of the County by example. Amongst other adjustments to the resolution, your Board approved:

- Two (2) 1.5% GSIs for those covered by the Resolution. Those increases were effective January 15, 2017 and January 14, 2018; and
- Two (2) $50.00/bi-week increases to the Flexible Benefits Program flex credit allowance. The first increase took effect on December 18, 2016 (for the 2017 plan year) and the second took effect on December 17, 2017 (for the 2018 plan year).

Since approving the aforementioned increases for those covered by the Resolution, your Board has approved similar, but not exact, recommendations to provide collectively bargained GSIs, Flexible Benefits Program, and other increases in the Memoranda of Agreement (MOA) for unionized employees covered by Service Employees International Union-Local 721 (SEIU), International Union of Operating Engineers-Local 501 (IUOE), Ventura Employees Association, Criminal Justice Attorneys' Association of Ventura County (CJAAVC), Specialized Peace Officers' Association of Ventura County (SPOAVC), and the Patrol Unit of Ventura County Professional Peace Officers Association (VCPPOA).

The GSI and flex credit allowance increase recommendations for 2019 would again exhibit the County's efforts for prudent and fiscally sustainable increases, while also aligning management's increases with those included in MOAs already approved by your Board.

It is of note that the County is currently engaged in the "meet and confer" (bargaining) process with Ventura County Deputy Sheriffs' Association (VCDSA), Ventura County Professional Firefighters Association (VCPFA), Ventura County Sheriff's Correctional Officers' Association (VCSCOA) and the Probation Unit of VCPPOA and the subjects of GSIs and flex credit allowance increases are under discussion.

This letter has been reviewed by the County Executive Office, County Counsel and the Auditor-Controller's Office. If you have any questions regarding the information presented herein, please contact me at (805) 654-2561.

Respectfully,

SHAWN ATIN
Assistant County Executive Officer-Human Resources Director

MICHAEL POWERS
County Executive Officer

c: Jeff Burgh, Auditor-Controller
Michael Petit, Assistant County Executive Officer
Catherine Rodriguez, County Chief Financial Officer
Leroy Smith, County Counsel