DISCUSSION CALENDAR - AGENDA ITEM NO. 15
BOARD OF DIRECTORS MEETING
September 26, 2013

TO: Board of Directors, Orange County Fire Authority

FROM: Lori Zeller, Assistant Chief
Business Services Department

SUBJECT: **Paying Down OCFA's Unfunded Pension Liability with Orange County Employees Retirement System**

Summary:
This agenda item is submitted for review and consideration of actions which will result in expedited payment of OCFA's Unfunded Actuarial Accrued Liability (UAAL) with the Orange County Employees Retirement System (OCERS).

Committee Action:
At its September 11, 2013, meeting, the Budget and Finance Committee reviewed and unanimously recommended approval of this item.

Recommended Actions:

1. Direct staff to provide updates to the Board each year as part of the mid-year budget presentation, indicating the amount of Fund Balance Available (FBA) from the prior fiscal year, and directing those amounts to be paid to OCERS as annual lump-sum payments towards the OCFA's UAAL.
2. Direct staff to include additional payments towards the OCFA's UAAL in the annual budget, including the following factors:
   a. Savings that result from the new Public Employees' Pension Reform Act provisions and other reductions in OCFA's retirement contribution rates shall be used as a source for additional UAAL payments.
   b. Beginning in FY 2016/17, an additional $1 million should be added to the OCFA's annual budget each year for 5 years, for retirement contributions to OCERS as a base-building source for additional UAAL payments
   c. Provide updates to the Board each year as part of the annual budget presentation, indicating the amount planned in each yearly budget as additional payments towards the OCFA's UAAL, resulting from the factors above.

Background:
Total retirement costs represent $62.5 million or 22% of the Authority's FY 2013/14 General Fund budget. Each year, the Authority receives its retirement rates from OCERS. The total retirement rate has two components including the Normal Rate and the current year's cost for the Unfunded Actuarial Accrued Liability (UAAL). The UAAL is the difference between the

actuarial accrued liabilities and the value of assets as of a specific date. In other words, the UAAL is the portion of the accumulated costs for service earned to date that is not covered by plan assets.

The UAAL is accounted for by OCERS in layers, with a new gain or loss layer being added every year and amortized, or paid down, over various amortization periods. Amortization periods are established by the OCERS Board as a policy matter. Based on a December 31, 2012, valuation by OCERS, the Authority's total UAAL is $473,792,000 of which $400.9 million or 85% is attributed to Safety members and $72.9 million or 15% is attributed to General members. Under the current layered amortization approach, OCFA has 29 years remaining to pay the UAAL in full.

In an effort to accelerate funding of this UAAL, the Authority submitted a request to OCERS to have its actuary (Segal Consulting) estimate the impact on the Authority's UAAL amortization period and retirement contribution rates, if the Authority were to accelerate the funding of its UAAL. Segal was asked to look at the following four strategies for lowering the UAAL (Attachment 1):

- Shortening the weighted-average amortization period to a specified period (for example, 20, 15, or 10 years)
- Contributing an additional $1 million each year (year 1 = $1M, year 2 = $2M, year 3 = $3M, etc.), with the additional annual contribution growing to $10M over 10 years
- Contributing an additional $2 million each year using fund balance available following the close of each fiscal year
- Contributing additional funds each year, using the savings that will be realized under the new Public Employees Pension Reform Act (PEPRA)

All of the above strategies would reduce the OCFA's existing UAAL more rapidly, and effectively shorten the weighted-average amortization period. Shortening the amortization period would have many benefits to OCFA. Although it would cause our employer contributions to rise, it would result in our liability being paid off sooner. Earlier payments of contributions will result in greater investment income earned and less money paid from the employer over the long-term.

Staff evaluated the affordability of various expedited payment options, using the OCFA's long-term financial forecast. We concluded that combining multiple strategies would yield positive benefits for OCFA, while also retaining flexibility in the event that OCFA's financial environment should change significantly in the coming years.

In particular, staff is recommending the following Strategies for expedited payment of OCFA's UAAL, which are collectively estimated to reduce OCFA's amortization period significantly, with payoff anticipated in less than 16 years, instead of the current period of 29 years:

1. Contribute additional amounts each year using the unencumbered fund balance available following the close of the prior fiscal year, estimated at approximately $3 million per year[1]
2. Contribute additional funds each year, using the savings that will be realized under PEPRA and savings from reductions to OCFA's retirement contribution rates, based on recent 15-year rate projections provided by Segal Consulting (Attachment 2)
3. Beginning in FY 2016/17, contribute an additional $1 million per year building to $5 million in annual payments over 5 years; at year 5, pause to reassess whether the annual increases should continue to build, remain at $5 million, or be adjusted otherwise

The attached long-term financial forecast (Attachment 3) includes the impact of Strategy Nos. 2 and 3 from above. Strategy No. 1 ultimately has no impact on the financial forecast, since it uses year-end funds that become available from revenues in excess of budget, or expenditures less than budget. Historically, OCFA's annual year-end fund balance has averaged nearly $4 million over the past 15 years (Attachment 4). For purposes of this analysis, we have assumed an annual amount of $3 million to be contributed towards the OCFA's UAAL (See footnote 1).

We have estimated the value of the proposed expedited payments from all of these Strategies, resulting in a "snowball" effect with growing annual values that add up to a cumulative $253.8 million over the next 17 years (Attachment 4). This projected $253.8 million UAAL payment is *in addition to* the minimum annual required UAAL payments that OCFA currently makes each year, and will continue to make each year until the UAAL is paid in full.

Alternatively, future events could cause retirement contribution rates to rise rather than fall. When that occurs, OCFA staff will present options to the OCFA Board for funding those required increases, while also continuing to work on progress with accelerated payment of OCFA's UAAL.

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[1] The current Amended Joint Powers Agreement (JPA) requires the Board to consider allocating all, or a portion of, unencumbered fund balance each year to the Structural Fire Fund Entitlement Fund (SFFEF). Also according to the current JPA, every tenth year (FY 2010/11, 2020/21, etc.), it is mandatory that the Board allocate at least 50% of the unencumbered fund balance to the SFFEF. These SFFEF provisions of the JPA are currently under consideration for amendment, pursuant to the equity discussions. If the proposed amendments are approved, then these SFFEF provisions will be deleted, enabling use of unencumbered funds for payment of the UAAL. If the equity provisions and JPA amendment are not approved, then the proposed allocation of unencumbered fund balance to the OCFA's UAAL can still be utilized as a strategy; however, the allocation will be subject to annual Board determination of whether to allocate the funding to the UAAL or the SFFEF.

Impact to Cities/County:
Accelerated payments to OCERS will only be recommended for implementation in a manner which minimizes the impact to cash contract city charges, as is the case with the above strategy. When the annual $1 million budgetary increases are scheduled to begin in FY 2016/17, the impact on cash contract charges will be reviewed with the City Managers for input and feedback to the Budget and Finance Committee and Board of Directors.

Fiscal Impact:
See long-term financial forecast provided as Attachment 3.

Staff Contacts for Further Information:
Lori Zeller, Assistant Chief of Business Services
Lorizeller@ocfa.org
(714) 744-0542

Tricia Jakubiak, Treasurer
Triciajakubiak@ocfa.org
(714) 573-6301

Attachments:
1. Segal Consulting–Accelerated Funding of UAAL for OCFA, August 30, 2013
2. Segal Consulting–Illustration of Retirement Costs, UAAL & Funding Ratio, August 30, 2013
3. OCFA's Long-Term Financial Forecast
4. Unencumbered Fund Balance – 15-year Average
5. Estimated Cumulative Value of Expedited UAAL Payment Strategies (Snowball Effect)

Segal Consulting

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

VIA E-MAIL AND USPS

August 30, 2013

Mr. Steve Delaney
Orange County Employees Retirement System
2223 Wellington Avenue
Santa Ana, CA 92701-3101

Re: Orange County Employees Retirement System
Accelerated Funding of UAAL for Orange County Fire Authority (OCFA)

Dear Steve:

In our letter to you dated August 7, 2013, we outlined several options that may be considered by OCERS in treating additional contributions made by those participating employers interested in reducing their future Unfunded Actuarial Accrued Liability (UAAL) payments to OCERS. As we pointed out in our letter, there are two broad categories of option that differ primarily in whether the additional contribution amounts would be used to immediately buy down the employers' UAAL and UAAL contribution rates (Option A), or held back from the current UAAL as an advance contribution so that those amounts, with future investment earnings, could be applied at the employer's discretion against future contributions (Option B). In particular, under Option B they could be used to reduce the UAAL payment periods for those employers.

When we presented our letter at the Board meeting on August 19, we were directed by the Board to provide some examples to illustrate how the different options would impact the employers' UAAL amount as well as current and future UAAL contribution rates. In our discussions following the Board meeting, we have been further directed by your office to prepare the examples based on actual requests made by three different employers.

In this letter, we have provided the examples based on the request made by the Orange County Fire Authority (OCFA). Since OCFA has only requested a subset of the options outlined in our letter from August 7, we would defer providing illustrations of the other options until we prepare the examples for the other employers.

OCFA has requested that we provide them with the impacts on their contribution rate under the following scenarios:

#1 How much would OCFA's General and Safety contribution rates need to increase in order for OCFA to reduce their current UAAL amortization to: (a) 20 years, (b) 15 years or (c) 10 years?

#2 If OCFA starts to add an extra $1 million in retirement contributions each year (i.e., $ 1 million in the first year, $2 million in the second year, etc.) until it reaches $10 million in ten years, how many years would they be able to shorten the amortization period for their UAAL?

#3 If OCFA starts to add an extra $2 million in retirement contributions each year, how many years would they be able to shorten their amortization period for their UAAL?

The impacts on the UAAL amount and associated contribution rate under these three scenarios are provided below.

SCENARIO #1 – CONTRIBUTIONS UNDER 20, 15 AND 10-YEAR AMORTIZATION PERIODS

In the December 31, 2012 valuation, there are 15 amortization layers for the UAAL for the OCFA General and 14 amortization layers for the UAAL for the OCFA Safety membership groups. The outstanding balance of the combined UAAL measured as of December 31, 2004 valuation was amortized over 30 years with 22 years left in that amortization as of December 31, 2012. Since 2004, depending on the cause that gave rise to the change in the UAAL (either positive or negative), the changes in the UAAL subsequent to the December 31, 2004 valuation have been amortized over different periods.

Under OCERS' funding policy, there are layers of UAAL with different amortization periods and not a single UAAL amortization layer. However, during our discussions with the Board on the review of actuarial funding policy, we noted that the net total current year UAAL contribution rates determined in the December 31, 2012 valuation for OCFA's General and Safety membership groups are equivalent to those that would result from an equivalent single amortization period of about 19 to 20 years. We emphasize that this single amortization period is only for illustration and comparison; it is not actually used to determine employer contributions.

In the table below, we have compared OCFA's normal cost plus UAAL contribution rates determined in the December 31, 2012 valuation with those determined using a single UAAL amortization period of 20 years, 15 years or 10 years. In reviewing these results, of note is that the contribution rates determined using the current as well as the new amortization schedules have been determined without taking into consideration the 2-year phase-in of the impact of the employer's contribution rates as a result of the changes in the economic assumptions in the December 31, 2012 valuation. This reflects a simplifying assumption we have made that if an employer can budget for the accelerated funding of the UAAL, then that employer would also be able to pay the higher contributions without the 2-year phase-in. We would be available to refine our calculation to reflect the phase-in based on any actual funding proposal agreed to by OCERS and OCFA.

	General – Rate Group #10		Safety – Rate Group #8		Total	
	Total Rate	Estimated Annual Amount[1]	Total Rate	Estimated Annual Amount[1]	Total Rate	Estimated Annual Amount[1]
Current Amortization[2]						
Normal Cost	13.93%	$3,041	26.16%	$29,254	24.16%	$32,295
UAAL[3]	24.76%	5,406	26.84%	30,014	26.50%	35,420
Total	38.69%	$8,447	53.00%	$59,268	50.66%	$67,715
20-year Amortization						
Normal Cost	13.93%	$3,041	26.16%	$29,254	24.16%	$32,295
UAAL[3]	24.09%	5,259	25.97%	29,041	25.66%	34,300
Total	38.02%	$8,300	52.13%	$58,295	49.82%	$66,595
Change from current	-0.67%	-$147	-0.87%	-$973	-0.84%	-$1,120
15-year Amortization						
Normal Cost	13.93%	$3,041	26.16%	$29,254	24.16%	$32,295
UAAL[3]	30.31%	6,618	32.65%	36,511	32.27%	43,129
Total	44.24%	$9,659	58.81%	$65,765	56.43%	$75,424
Change from current	+5.55%	+$1,212	+5.81%	+$6,497	+5.77%	+$7,709
10-year Amortization						
Normal Cost	13.93%	$3,041	26.16%	$29,254	24.16%	$32,295
UAAL[3]	42.92%	9,371	46.19%	51,652	45.66%	61,023
Total	56.85%	$12,412	72.35%	$80,906	69.82%	$93,318
Change from current	+18.16%	+$3,965	+19.35%	+$21,638	+19.16%	+$25,603

(1) Dollar amounts are in thousands and are based on December 31, 2012 projected annual compensation as follows:

Rate Group #10	$21,832
Rate Group #8	$111,826

(2) Before reflecting two-year phase-in of the contribution rate impact from the change in economic assumptions in the December 31, 2012 valuation.

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

A comparison of the UAAL contributions required under the current and the 20, 15 and 10 year amortization schedules is provide in Attachment A. The current year's UAAL contributions as provided in the table above are somewhat higher than the first year's contributions in Attachment A due to the adjustment in the UAAL for the 18- month delay between the date of the valuation and date of rate implementation.

Note that changing to a 20-year single period would actually reduce the employer's current rates since the equivalent single amortization period for OCFA's UAAL is between 19 and 20 years. We also stress that the use of a single amortization period for the entire UAAL is not current policy and may or may not be made available by the Board.

In responding to this request from OCFA, we assume OCFA would be making a long-term commitment to fund using one of these amortization schedules. If our understanding is correct, neither Option A nor Option B as outlined in our letter dated August 7 may satisfy OCFA's intent. This is because there are 14 to 15 UAAL layers for OCFA's General and Safety groups, each with different amortization periods and some of those periods are longer than the 20, 15 or 10 years requested by OCFA. If the Board chooses to allow this scenario, it would require an action to combine all the UAAL layers into a single layer (with the requested amortization period), subject to approval by the Board.

SCENARIO #2 – IMPACT OF ADDITIONAL CONTRIBUTIONS OF $1 MILLION PER YEAR UNTIL THEY REACH $10 MILLION IN TEN YEARS

We have been asked by OCFA to determine how many years would they be able to shorten the amortization period for their UAAL if OCFA starts to add an extra $1 million in retirement contributions each year beginning on March 31, 2014 (i.e., $ 1 million on March 31, 2014, $2 million on March 31, 2015, etc.) until they reach $10 million in ten years.

As we outlined in our August 7 letter, under Option A any additional contributions made by OCFA would normally be used to immediately reduce both OCFA's UAAL and the related UAAL contribution rate in the next actuarial valuation. This is because those additional contributions would be used dollar-for-dollar to reduce OCFA's UAAL and a lower UAAL contribution rate would be calculated as a result in the next actuarial valuation. This is the reason why for OCFA's Scenario #2, Option B would be more appropriate. The additional contributions would be deposited into a "booking-keeping" type account (similar to the County Investment Account that has been maintained for the County of Orange). The balance in that account would not be included as valuation assets and therefore would not be used to immediately reduce OCFA's UAAL amount and the associated UAAL contribution rate in the next valuation.

If OCERS would agree to establish this account for OCFA, that amount would be credited with the additional contributions made by OCFA. It would be adjusted annually by OCERS to reflect actual market returns (either positive or negative) earned by the System during the year.

As we have already pointed out, OCFA has a number of UAAL layers each with its own amortization period. While we have used the terminology of an equivalent single amortization period to illustrate the duration that OCFA's UAAL would be paid off, in practice, OCFA's future dollar contributions would decrease in some years when those UAAL layers that are amortized with shorter periods are paid-off. Furthermore, those contributions would generally increase every year at the assumed rate of payroll increase (i.e., 3.75%) under the level percentage of payroll amortization approach. The interrelationship between these factors is best illustrated in the chart as provided in Attachment B.

We have estimated that additional contributions of $1 million per year until they reach $10 million in ten years when adjusted with assumed investment return at 7.25% per year would allow OCFA to eliminate their UAAL contributions after 21 years for both General and Safety. That result is shown in the dropping off of the contributions as illustrated by the red line in Attachment B.

SCENARIO #3 – IMPACT OF ADDITIONAL CONTRIBUTIONS OF $2 MILLION PER YEAR

Scenario #3 is very similar to Scenario #2 except that the contributions under this Scenario are fixed and would continue to be made beyond ten years.

Assuming again that OCERS would agree to establish a book-keeping account for OCFA, we have estimated that the $2 million per year contributions if made by OCFA for 21 years when adjusted with assumed investment return at 7.25% per year would allow OCFA to eliminate their UAAL contributions after 22 years for both General and Safety. That result is shown in the dropping off of the contributions as illustrated by the red line in Attachment C.

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

Please let us know if you have any questions.

Sincerely,

Paul Angelo

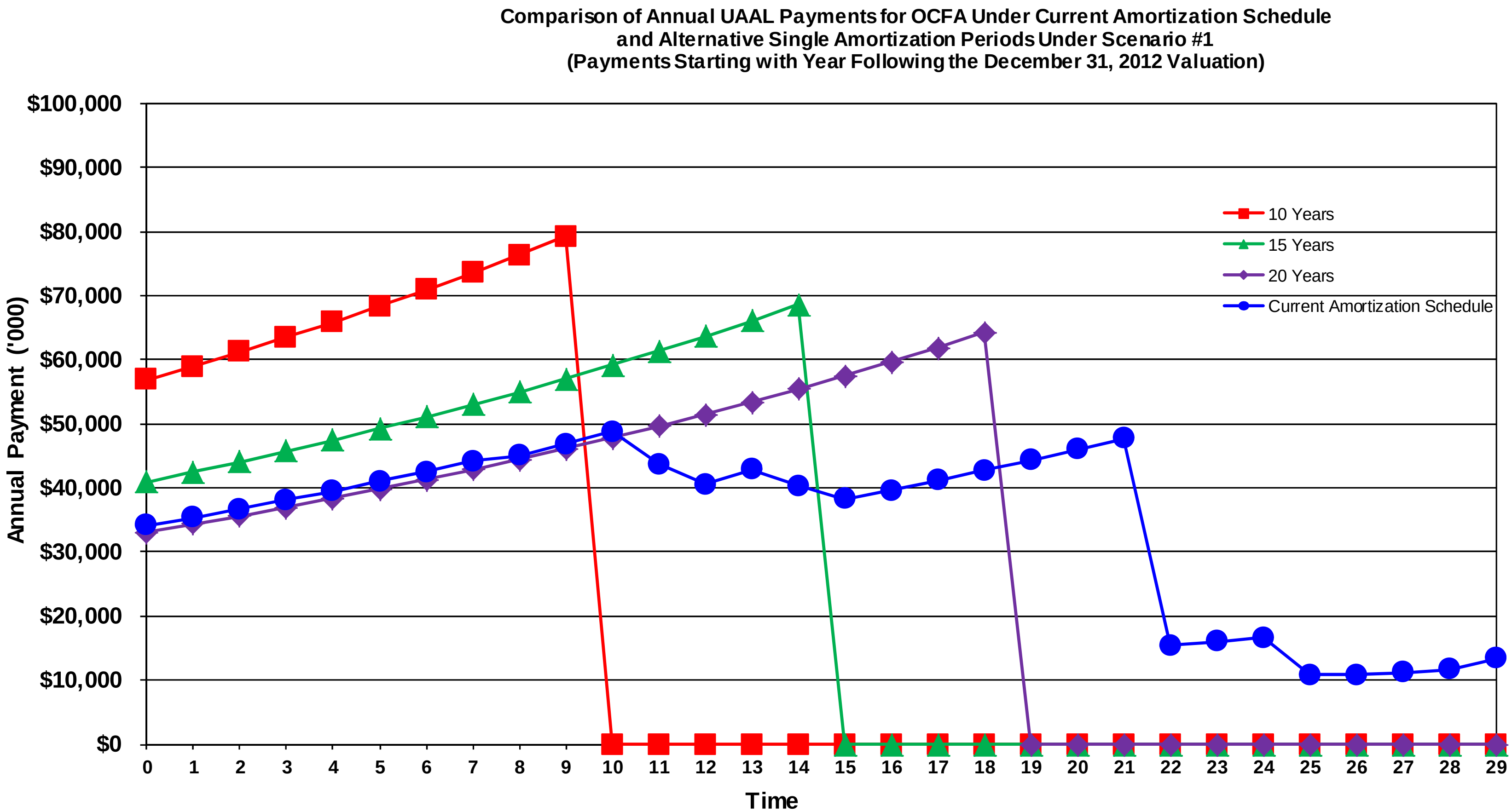
Andy Yeung

Paul Angelo, FSA, EA, MAAA, FCA	Andy Yeung, ASA, EA, MAAA, FCA
Senior Vice President and Actuary	Vice President and Associate Actuary

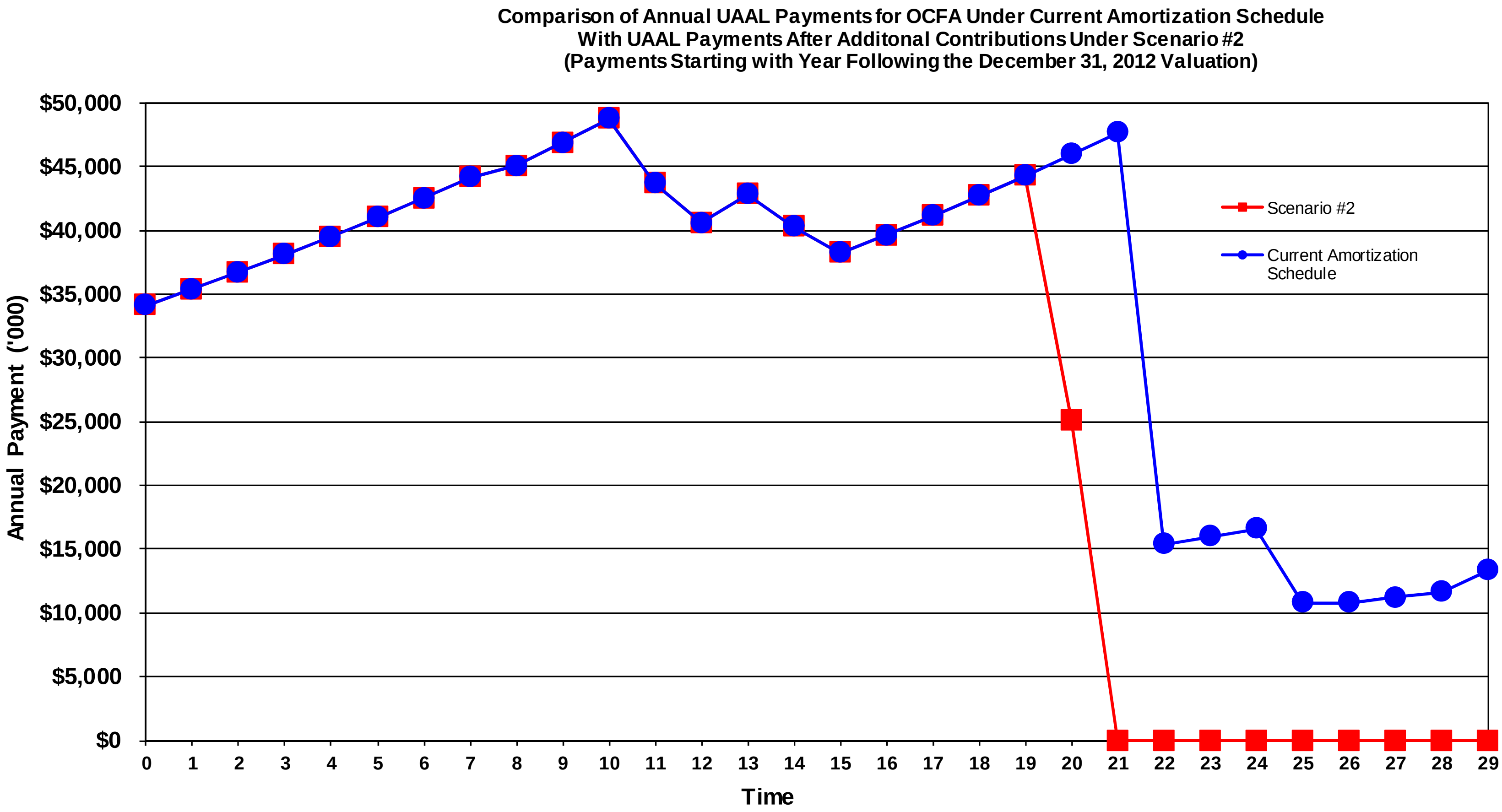
AYY/kek
Enclosures

cc: Brenda Shott
Julie Wyne

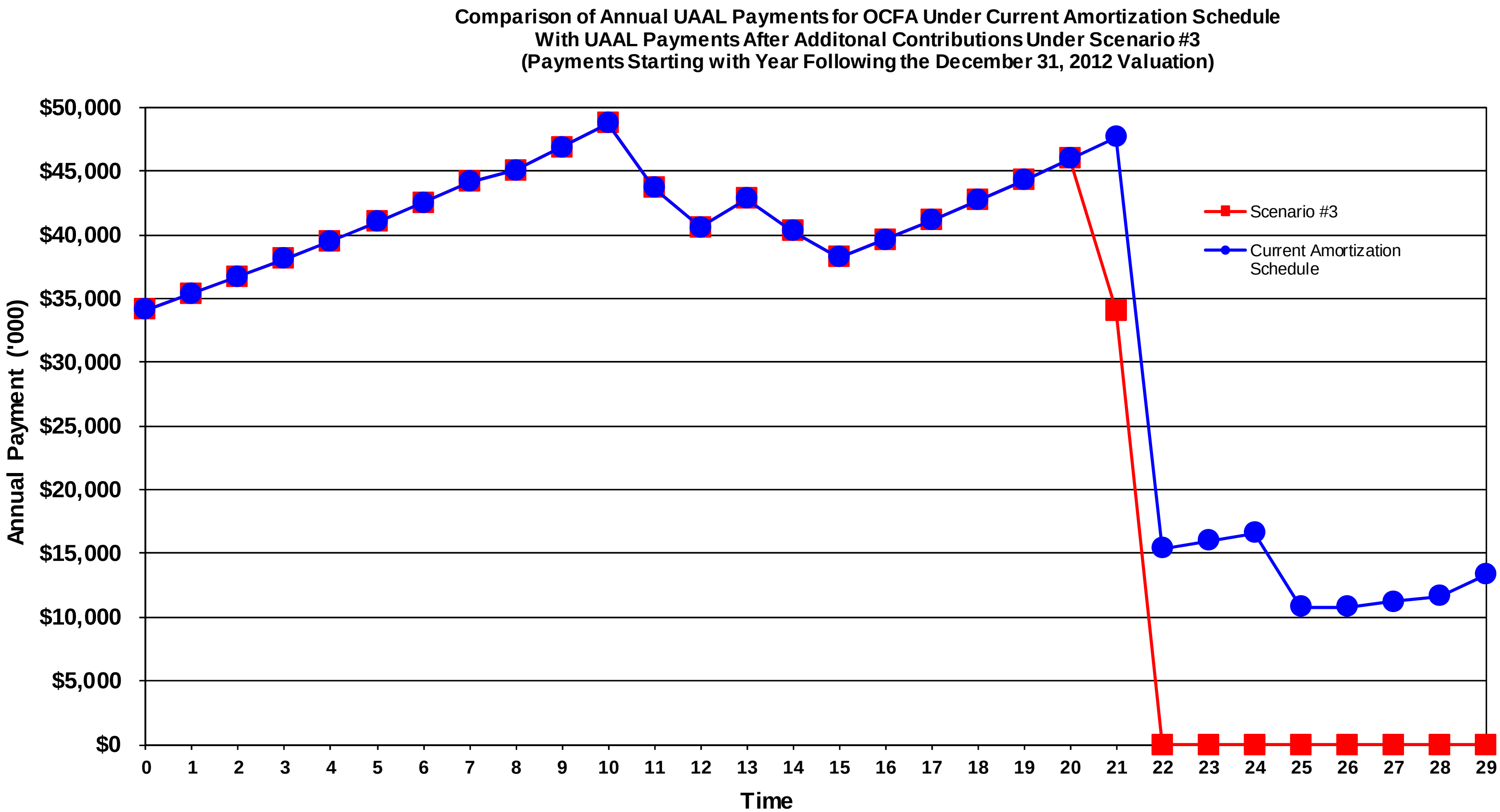
Attachment A



Attachment B



Attachment C



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Segal Consulting

100 Montgomery Street Suite 500 San Francisco, CA 94104-4308
T 415.263.8283 www.segalco.com

Andy Yeung, ASA, MAAA, FCA, EA
Vice President & Associate Actuary
ayeung@segalco.com

VIA E-MAIL AND USPS

August 30, 2013

Mr. Steve Delaney
Chief Executive Officer
Orange County Employees Retirement System
2223 Wellington Avenue
Santa Ana, CA 92701-3101

Re: Illustrations of Retirement Costs, Unfunded Actuarial Accrued Liability and Funded Ratio under Alternative Economic Scenarios

Dear Steve:

As requested, we have developed 15-year illustrations of the employer contribution rates for OCERS under three sets of market return “scenarios” after December 31, 2012. In this letter, we have also provided the Unfunded Actuarial Accrued Liability (UAAL) in dollars and the funded ratio associated with those projected employer contribution rates. These results have been prepared using the amortization periods approved by the Board at its meeting in June 2013.

The three market rate of return scenarios are as follows:

- Scenario #1: 0.00% for 2013 and 7.25% thereafter.
- Scenario #2: 7.25% for all years.
- Scenario #3: 14.50% for 2013 and 7.25% thereafter.

The projected contribution rates for the aggregate plan are provided in Attachment A. The projected contribution rates for the ten Rate Groups are provided in Attachment B. The projected UAAL and funded ratio for the aggregate plan are provided in Attachment C. The projected UAAL and funded ratio for the ten Rate Groups are provided in Attachments D through M.

This projection also reflects the potential employer savings as current employees leave employment and are replaced by new members covered under the tiers required by the California Public Employees' Pension Reform Act of 2013 (CalPEPRA) starting at January 1, 2013. Please note that some of the changes made by CalPEPRA, such as the sharing of the total Normal Cost on a 50:50 basis, may result in employer savings for current employees. As the impact of those potential savings has not been studied by OCERS, we have not included those in this illustration.

Methods and Assumptions

The methods and actuarial assumptions we used to prepare the employer contribution rates, the UAAL and the funded ratio are as summarized below:

- The illustrations are based on the actuarial assumptions and census data used in our December 31, 2012 valuation report for the Retirement Plan. With the exception of the market rates of return specified above, it is assumed that all actuarial assumptions would be met in the future and that there would be no change in the future for any of the actuarial assumptions adopted by the Board for the December 31, 2012 valuation.

- The detailed amortization schedule for OCERS' UAAL as of December 31, 2012 is provided in the valuation report. Any subsequent change in the UAAL due to actuarial gains or losses (e.g., from investment returns on actuarial value greater or less than the assumed 7.25% at market value) are amortized over separate 15-year periods.

- No adjustment has been made to reflect the long-term impact on OCERS of the two-year phase-in of the cost increase due to the change in the economic assumptions (especially the 7.25% investment return assumption) adopted by the Board for the December 31, 2012 valuation. (That impact, if reflected in our projections, would have increased the contribution rates for the System as a whole by about 0.2% of payroll starting with the December 31, 2013 valuation.) However, we have provided in Attachments A and B the contribution rates from the December 31, 2012 valuation both before and after the adjustment for the first year of the two-year phase-in.

- CalPEPRA prescribes new benefit formulas for members with a membership date on and after January 1, 2013. For Rate Groups 1, 3, 5, 9, 10 and 11, we have estimated the Normal Cost savings[1] associated with the enrollment of those employees under the new 2.5% at 67 formula. We have also estimated the changes in employee contributions in accordance with Section 7522.30 of CalPEPRA (i.e., 50:50 sharing of the total Normal Cost with the new employees).

  For Rate Group 2, with the exception of the County's attorneys, San Juan Capistrano employees and OCERS Management employees who will receive the 2.5% at 67 formula, all new employees in Rate Group 2 will receive the "new" 1.62% at 65 formula.

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[1] To estimate the savings, we have made a simplifying assumption that current active members would be replaced over the next 20 years (starting in 2013) by new members under 2.5% at 67 on a prorated basis.

We assumed that the proportion of the total payrolls from County's attorneys, San Juan Capistrano employees and OCERS Management employees in the future would remain unchanged from that observed at the December 31, 2011[2] valuation. As of December 31, 2011, payroll for active members in these three categories represented about 7.5% of the total payroll for all members in Rate Group 2. We have estimated the Normal Cost savings[3] associated with the enrollment of new members under the two new formulas. We have also estimated the changes in employee contributions in accordance with Section 7522.30 of CalPEPRA.

- For Rate Group 6, 7 and 8 members with a membership date on and after January 1, 2013, we have estimated the Normal Cost savings[4] associated with the enrollment of those members under the new 2.7% at 57 formula. We have also estimated the changes in employee contributions in accordance with Section 7522.30 of CalPEPRA.

- Please note that new members will be enrolled under the CalPEPRA benefit formulas effective January 1, 2013 and it is anticipated that the actual payrolls for these members will first be reported in the December 31, 2013 valuation.

  In preparing the contribution rates for each Rate Group (and the aggregate rate for the System as a whole), we have utilized the projected proportions of payroll for the members covered under the pre-CalPEPRA and the CalPEPRA benefit formulas starting with the December 31, 2013 valuation and in each subsequent valuation.

  As the results from the December 31, 2013 valuation will not be used in setting the contribution rates until the 2015/2016 fiscal year, the contribution rates provided in these illustrations are somewhat overstated since employers in the different Rate Groups will start to pay lower contribution rates for new hires under the CalPEPRA benefit formulas effective January 1, 2013.

- We understand that, with the exception of new members who would be covered under the "new" 1.62% at 65 formula, in the determination of pension benefits under the CalPEPRA formulas the maximum compensation that can be taken into account for new members on and after January 1, 2013 is equal to 120% of the Social Security Taxable Wage Base ($136,440 in 2013). To the extent this provision will limit compensation of the new members, our assumption that the total payroll will increase by 3.75% each year over the projection period (for use in determining the contribution rate for the UAAL) may be overstated somewhat.

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[2] This is the most recent date for which data was provided by OCERS to isolate the County's attorneys.

[3] To estimate the savings, we have made a simplifying assumption that current County's attorneys, San Juan Capistrano and OCERS Management active members would be replaced over the next 20 years (starting in 2013) by new members under 2.5% at 67 on a prorated basis. All other active members would be replaced over the next 20 years (starting in 2013) by new members under 1.62% at 65 on a prorated basis.

[4] To estimate the savings, we have made a simplifying assumption that current active members would be replaced over the next 20 years (starting in 2013) by new members under 2.7% at 57 on a prorated basis.

- Other than the above adjustments to the Normal Costs from the new CalPEPRA formulas, we have not included any other adjustments for the pre-CalPEPRA members such as the anticipated reduction in proportion (and hence in the associated Normal Cost) of existing Tier 1 active members (with pension benefits based on final one year average formula) relative to the increase in proportion of existing Tier 2 active members (with pension benefits based on final three year average formula) for members in any Rate Group.

Projections, by their nature, are not a guarantee of future results. The modeling projections are intended to serve as illustrations of future financial outcomes that are based on the information available to us at the time the modeling is undertaken and completed, and the agreed-upon assumptions and methodologies described herein. Emerging results may differ significantly if the actual experience proves to be different from these assumptions or if alternative methodologies are used. Actual experience may differ due to such variables as demographic experience, the economy, stock market performance and the regulatory environment.

This study was prepared under the supervision of Andy Yeung, ASA, MAAA. I am a member of the American Academy of Actuaries and meet the qualification requirements to provide the opinion contained herein.

Please let us know if you have any questions.

Sincerely,

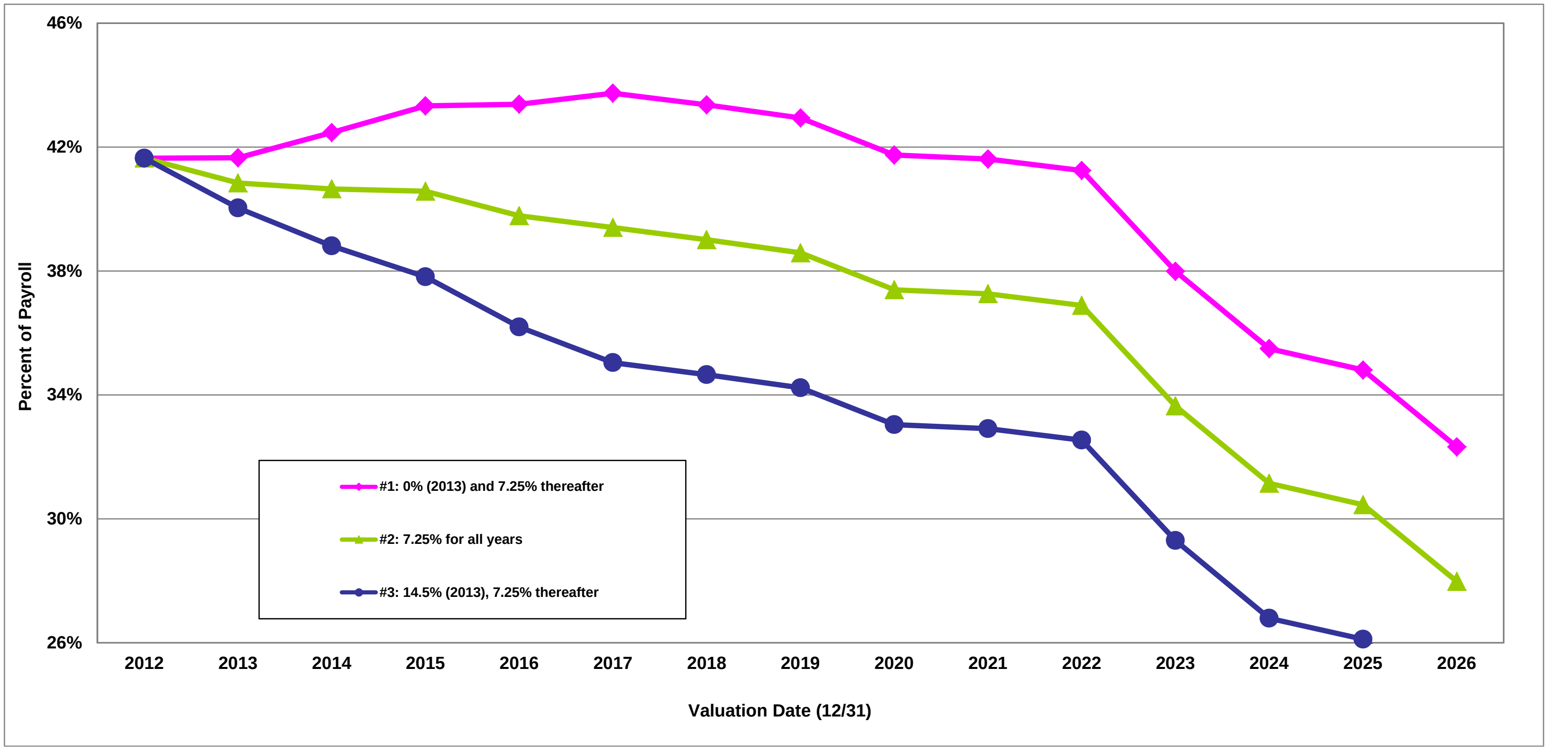
Andy Yeung

Andy Yeung

MYM/hy
Enclosures

cc: Brenda Shott
Julie Wyne

Attachment A: Projected Employer Rates
Aggregate Plan



Valuation Date (12/31)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
#1: 0% (2013) and 7.25% thereafter	41.6%	41.7%	42.5%	43.3%	43.4%	43.7%	43.4%	42.9%	41.7%	41.6%	41.2%	38.0%	35.5%	34.8%	32.3%
#2: 7.25% for all years	41.6%	40.8%	40.7%	40.6%	39.8%	39.4%	39.0%	38.6%	37.4%	37.3%	36.9%	33.6%	31.1%	30.5%	28.0%
#3: 14.5% (2013), 7.25% thereafter	41.6%	40.0%	38.8%	37.8%	36.2%	35.0%	34.7%	34.2%	33.0%	32.9%	32.5%	29.3%	26.8%	26.1%	23.6%

Rates shown above have not been adjusted for the two-year phase-in of the cost increase due to the change in the economic assumptions adopted by the Board for the December 31, 2012 valuation. For instance, the aggregate employer contribution rate as of December 31, 2012 after the two-year phase-in is 39.3% and the two-year phase-in, if reflected in our projections would have increased the contribution rates for the System as a whole by about 0.2% of payroll starting with the December 31, 2013 valuation.

Attachment B
Projected Employer Rates by Rate Group
Scenario 1: 0% for 2013 and 7.25% thereafter

	Valuation Date (12/31)														
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
General															
RG #1 - Plans A, B and U (non-OCTA, non-OCSD)	22.6%	22.8%	23.7%	24.5%	24.8%	25.2%	25.2%	25.1%	25.8%	25.3%	26.0%	24.0%	21.5%	22.4%	21.2%
RG #2 - Plans I, J, O, P, S, T and U	39.4%	39.4%	40.1%	40.8%	40.7%	41.0%	40.6%	40.1%	38.6%	38.4%	37.8%	34.9%	32.4%	31.6%	29.0%
RG #3 - Plans B, G, H and U (Law Library, OCSD)	38.3%	38.5%	39.3%	40.1%	40.3%	40.7%	40.5%	40.2%	38.1%	37.5%	37.3%	35.6%	33.9%	31.2%	27.9%
RG #5 - Plans A, B and U (OCTA)	28.3%	28.5%	29.4%	30.4%	30.7%	31.2%	31.2%	31.1%	30.9%	31.6%	32.8%	30.0%	27.6%	27.7%	25.6%
RG #9 - Plans M, N and U (TCA)	27.2%	27.2%	27.7%	28.2%	28.3%	28.6%	28.4%	28.2%	28.5%	29.0%	29.0%	27.7%	25.7%	26.3%	26.7%
RG #10 - Plans I, J, M, N and U (OCFA)	38.7%	38.7%	39.3%	39.9%	39.9%	40.2%	39.8%	39.4%	38.0%	35.4%	36.5%	35.5%	33.5%	32.7%	29.0%
RG #11 - Plans M and N, future service, and U (Cemetery)	24.6%	24.7%	25.2%	25.8%	25.7%	25.9%	25.5%	25.1%	25.2%	24.5%	23.6%	21.4%	21.4%	20.6%	19.6%
Safety															
RG #6 - Plans E, F and V (Probation)	43.2%	43.1%	43.9%	44.7%	44.7%	45.1%	44.7%	44.1%	41.7%	40.9%	40.7%	38.0%	36.9%	36.5%	34.9%
RG #7 - Plans E, F, Q, R and V (Law Enforcement)	61.0%	61.1%	62.6%	64.1%	64.4%	65.2%	64.7%	64.3%	63.9%	64.6%	64.4%	58.6%	55.6%	54.8%	52.2%
RG #8 - Plans E, F, Q, R and V (Fire Authority)	53.0%	52.9%	53.8%	54.8%	54.8%	55.3%	54.7%	54.2%	53.3%	53.3%	52.4%	47.4%	44.2%	44.1%	41.7%

Rates shown above have not been adjusted for the two-year phase-in of the cost increase due to the change in the economic assumptions adopted by the Board for the December 31, 2012 valuation. For instance, the employer contribution rates as of December 31, 2012 after the two-year phase-in are as follows:

Rate Group #1	21.0%
Rate Group #2	37.3%
Rate Group #3	36.4%
Rate Group #5	26.6%
Rate Group #9	25.7%
Rate Group #10	36.7%
Rate Group #11	23.0%
Rate Group #6	40.5%
Rate Group #7	57.3%
Rate Group #8	49.8%

Note that the two-year phase-in, if reflected in our projections would have increased the contribution rates for the System as a whole by about 0.2% of payroll starting with the December 31, 2013 valuation. We have not determined that impact for each Rate Group.

Attachment B
Projected Employer Rates by Rate Group
Scenario 2: 7.25% for all years

	Valuation Date (12/31)														
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
General															
RG #1 - Plans A, B and U (non-OCTA, non-OCSD)	22.6%	22.2%	22.3%	22.4%	22.1%	22.0%	21.9%	21.9%	22.6%	22.1%	22.8%	20.8%	18.3%	19.2%	18.0%
RG #2 - Plans I, J, O, P, S, T and U	39.4%	38.6%	38.4%	38.3%	37.5%	37.0%	36.6%	36.1%	34.6%	34.4%	33.8%	30.9%	28.4%	27.6%	25.0%
RG #3 - Plans B, G, H and U (Law Library, OCSD)	38.3%	37.8%	37.8%	37.8%	37.3%	37.0%	36.8%	36.5%	34.4%	33.8%	33.6%	32.0%	30.2%	27.5%	24.3%
RG #5 - Plans A, B and U (OCTA)	28.3%	27.8%	27.9%	28.1%	27.7%	27.7%	27.6%	27.5%	27.3%	28.0%	29.2%	26.4%	24.1%	24.1%	22.1%
RG #9 - Plans M, N and U (TCA)	27.2%	26.8%	26.7%	26.7%	26.3%	26.1%	25.9%	25.7%	26.0%	26.5%	26.5%	25.2%	23.2%	23.8%	24.2%
RG #10 - Plans I, J, M, N and U (OCFA)	38.7%	38.1%	37.9%	37.8%	37.2%	36.8%	36.5%	36.1%	34.6%	32.0%	33.2%	32.1%	30.2%	29.3%	25.6%
RG #11 - Plans M and N, future service, and U (Cemetery)	24.6%	24.1%	23.9%	23.9%	23.2%	22.9%	22.7%	22.4%	22.6%	21.9%	21.1%	18.9%	18.9%	18.2%	17.2%
Safety															
RG #6 - Plans E, F and V (Probation)	43.2%	42.4%	42.1%	42.0%	41.2%	40.7%	40.3%	39.8%	37.4%	36.5%	36.3%	33.7%	32.6%	32.2%	30.6%
RG #7 - Plans E, F, Q, R and V (Law Enforcement)	61.0%	59.8%	59.7%	59.7%	58.7%	58.3%	57.9%	57.5%	57.0%	57.8%	57.5%	51.7%	48.8%	48.0%	45.3%
RG #8 - Plans E, F, Q, R and V (Fire Authority)	53.0%	51.9%	51.6%	51.4%	50.4%	49.8%	49.3%	48.7%	47.9%	47.8%	46.9%	41.9%	38.8%	38.6%	36.3%

Rates shown above have <u>not</u> been adjusted for the two-year phase-in of the cost increase due to the change in the economic assumptions adopted by the Board for the December 31, 2012 valuation. For instance, the employer contribution rates as of December 31, 2012 after the two-year phase-in are as follows:

Rate Group #1	21.0%
Rate Group #2	37.3%
Rate Group #3	36.4%
Rate Group #5	26.6%
Rate Group #9	25.7%
Rate Group #10	36.7%
Rate Group #11	23.0%
Rate Group #6	40.5%
Rate Group #7	57.3%
Rate Group #8	49.8%

Note that the two-year phase-in, if reflected in our projections would have increased the contribution rates for the System as a whole by about 0.2% of payroll starting with the December 31, 2013 valuation. We have not determined that impact for each Rate Group.

Attachment B
Projected Employer Rates by Rate Group
Scenario 3: 14.5% for 2013 and 7.25% thereafter

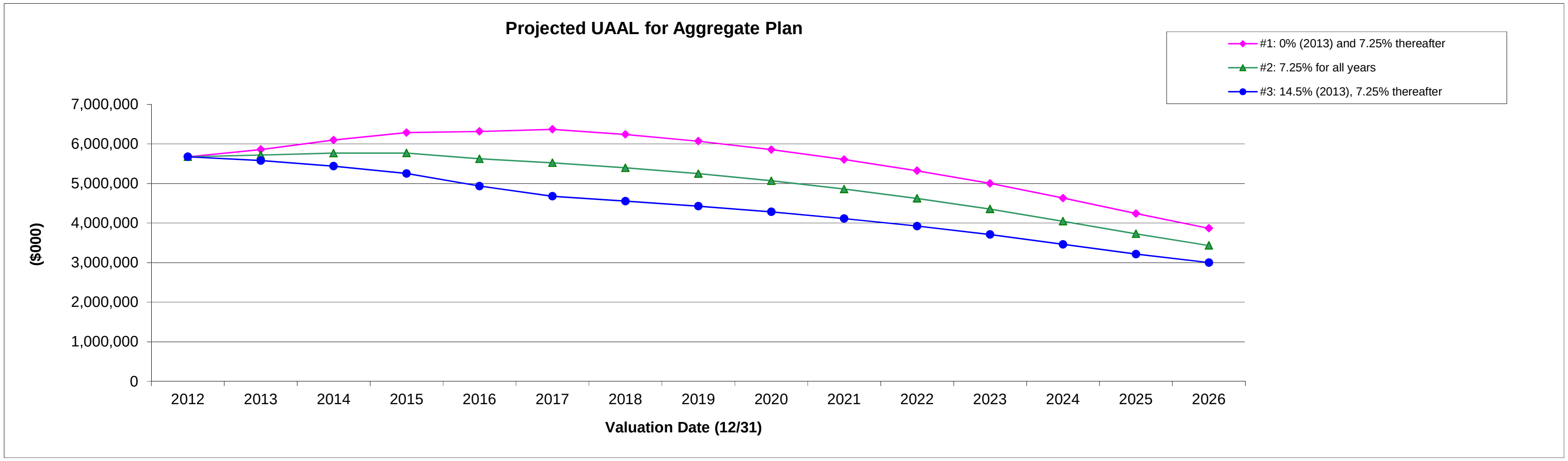
	Valuation Date (12/31)														
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
General															
RG #1 - Plans A, B and U (non-OCTA, non-OCSD)	22.6%	21.6%	20.9%	20.3%	19.4%	18.8%	18.7%	18.7%	19.3%	18.8%	19.6%	17.6%	15.1%	16.0%	14.8%
RG #2 - Plans I, J, O, P, S, T and U	39.4%	37.9%	36.7%	35.7%	34.2%	33.1%	32.6%	32.1%	30.7%	30.5%	29.8%	26.9%	24.4%	23.6%	21.0%
RG #3 - Plans B, G, H and U (Law Library, OCSD)	38.3%	37.2%	36.3%	35.5%	34.3%	33.4%	33.1%	32.8%	30.8%	30.1%	30.0%	28.3%	26.6%	23.9%	20.6%
RG #5 - Plans A, B and U (OCTA)	28.3%	27.2%	26.4%	25.9%	24.8%	24.1%	24.1%	24.0%	23.8%	24.5%	25.7%	22.9%	20.5%	20.6%	18.6%
RG #9 - Plans M, N and U (TCA)	27.2%	26.3%	25.7%	25.1%	24.2%	23.5%	23.4%	23.2%	23.5%	24.0%	24.0%	22.7%	20.7%	21.4%	21.7%
RG #10 - Plans I, J, M, N and U (OCFA)	38.7%	37.5%	36.6%	35.8%	34.4%	33.5%	33.1%	32.7%	31.3%	28.6%	29.8%	28.7%	26.8%	26.0%	22.3%
RG #11 - Plans M and N, future service, and U (Cemetery)	24.6%	23.5%	22.7%	22.0%	20.9%	20.1%	19.9%	19.7%	19.9%	19.3%	18.5%	16.4%	16.4%	15.7%	14.7%
Safety															
RG #6 - Plans E, F and V (Probation)	43.2%	41.6%	40.4%	39.3%	37.6%	36.4%	36.0%	35.5%	33.1%	32.2%	32.0%	29.4%	28.3%	27.9%	26.3%
RG #7 - Plans E, F, Q, R and V (Law Enforcement)	61.0%	58.5%	56.8%	55.4%	53.0%	51.4%	51.0%	50.6%	50.2%	50.9%	50.7%	44.9%	41.9%	41.1%	38.5%
RG #8 - Plans E, F, Q, R and V (Fire Authority)	53.0%	50.9%	49.4%	48.0%	45.9%	44.4%	43.8%	43.3%	42.5%	42.4%	41.5%	36.5%	33.4%	33.2%	30.9%

Rates shown above have not been adjusted for the two-year phase-in of the cost increase due to the change in the economic assumptions adopted by the Board for the December 31, 2012 valuation. For instance, the employer contribution rates as of December 31, 2012 after the two-year phase-in are as follows:

Rate Group #1	21.0%
Rate Group #2	37.3%
Rate Group #3	36.4%
Rate Group #5	26.6%
Rate Group #9	25.7%
Rate Group #10	36.7%
Rate Group #11	23.0%
Rate Group #6	40.5%
Rate Group #7	57.3%
Rate Group #8	49.8%

Note that the two-year phase-in, if reflected in our projections would have increased the contribution rates for the System as a whole by about 0.2% of payroll starting with the December 31, 2013 valuation. We have not determined that impact for each Rate Group.

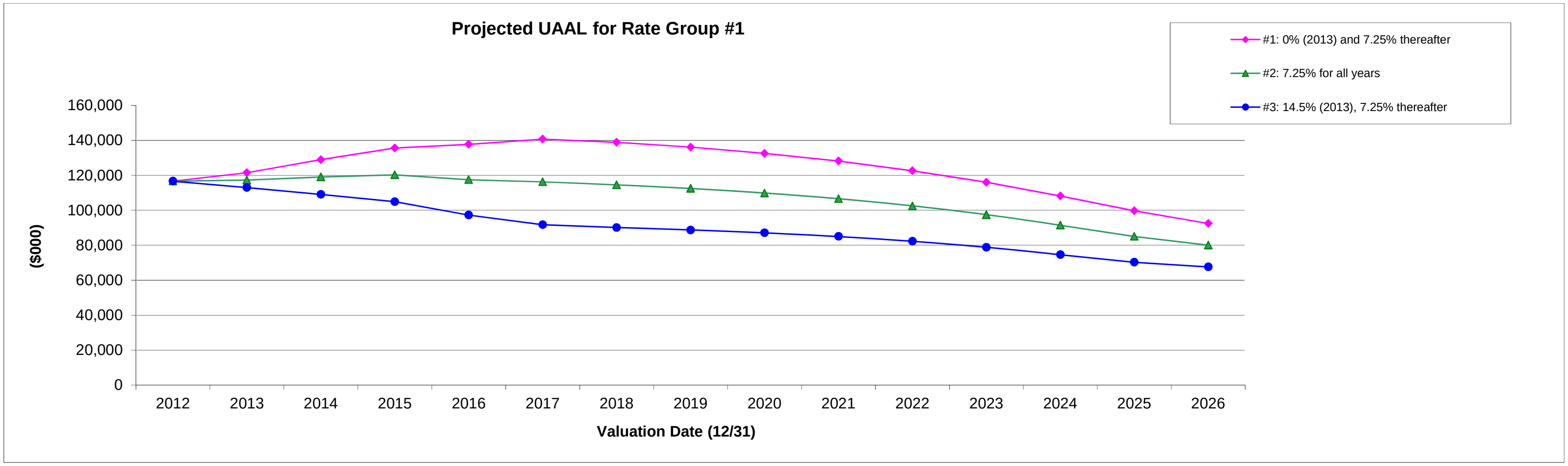
Attachment C
Projected UAAL and Funded Ratio for Aggregate Plan



UAAL	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
#1: 0% (2013) and 7.25% thereafter	5,675,680	5,859,753	6,098,822	6,288,194	6,315,502	6,369,296	6,240,969	6,070,411	5,857,562	5,606,719	5,323,879	5,003,139	4,631,041	4,243,221	3,869,083
#2: 7.25% for all years	5,675,680	5,720,052	5,768,779	5,771,410	5,625,788	5,524,004	5,398,153	5,249,077	5,070,456	4,860,064	4,624,264	4,357,649	4,047,530	3,730,263	3,436,024
#3: 14.5% (2013), 7.25% thereafter	5,675,680	5,580,351	5,438,736	5,254,623	4,936,258	4,679,104	4,555,658	4,428,189	4,284,154	4,114,271	3,925,457	3,713,024	3,464,949	3,218,172	3,003,761

Funded Ratio															
#1: 0% (2013) and 7.25% thereafter	62.5%	63.7%	64.4%	65.5%	67.4%	68.9%	71.3%	73.6%	75.9%	78.2%	80.4%	82.5%	84.6%	86.6%	88.4%
#2: 7.25% for all years	62.5%	64.5%	66.4%	68.3%	70.9%	73.1%	75.2%	77.2%	79.1%	81.1%	82.9%	84.8%	86.6%	88.2%	89.7%
#3: 14.5% (2013), 7.25% thereafter	62.5%	65.4%	68.3%	71.2%	74.5%	77.2%	79.0%	80.7%	82.4%	84.0%	85.5%	87.0%	88.5%	89.8%	91.0%

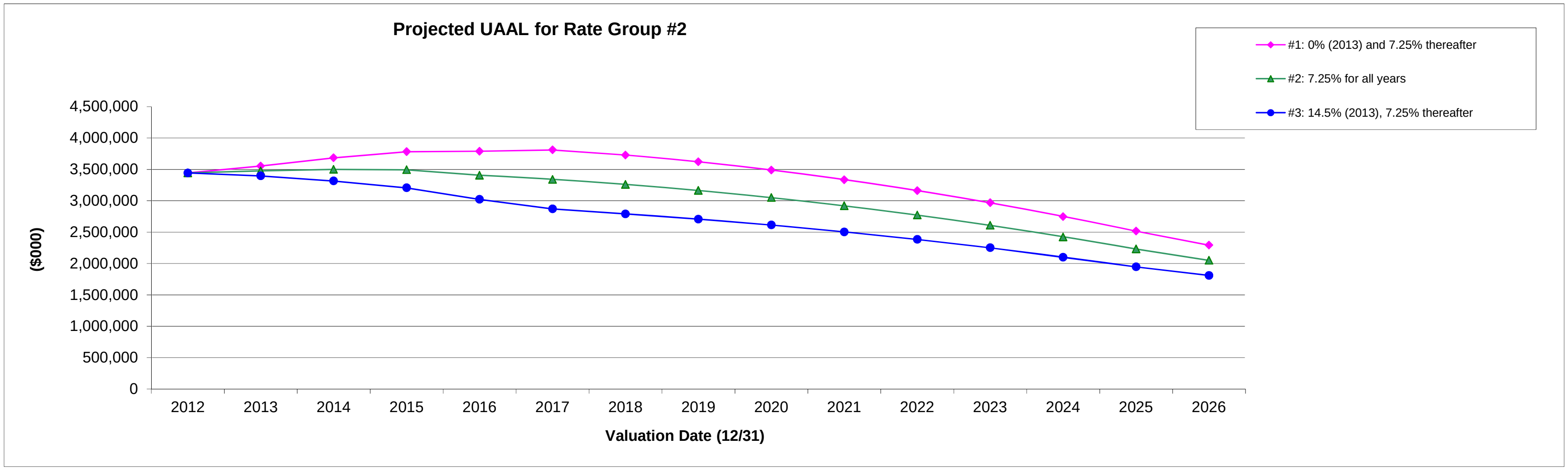
Attachment D
Projected UAAL and Funded Ratio for Rate Group #1
Plans A, B and U (non-OCTA, non-OCSD)



UAAL	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
#1: 0% (2013) and 7.25% thereafter	116,700	121,520	128,977	135,622	137,747	140,713	138,903	136,180	132,568	128,188	122,645	116,031	108,197	99,785	92,458
#2: 7.25% for all years	116,700	117,254	119,047	120,284	117,543	116,268	114,566	112,486	109,880	106,681	102,506	97,468	91,440	85,082	80,075
#3: 14.5% (2013), 7.25% thereafter	116,700	112,988	109,113	104,930	97,303	91,758	90,154	88,713	87,111	85,095	82,297	78,840	74,617	70,308	67,627

Funded Ratio															
#1: 0% (2013) and 7.25% thereafter	71.5%	71.8%	71.5%	71.5%	72.4%	73.1%	74.6%	76.2%	77.9%	79.5%	81.2%	82.9%	84.7%	86.4%	87.9%
#2: 7.25% for all years	71.5%	72.8%	73.7%	74.7%	76.4%	77.8%	79.1%	80.4%	81.6%	82.9%	84.3%	85.7%	87.1%	88.4%	89.5%
#3: 14.5% (2013), 7.25% thereafter	71.5%	73.8%	75.9%	77.9%	80.5%	82.5%	83.5%	84.5%	85.5%	86.4%	87.4%	88.4%	89.4%	90.4%	91.1%

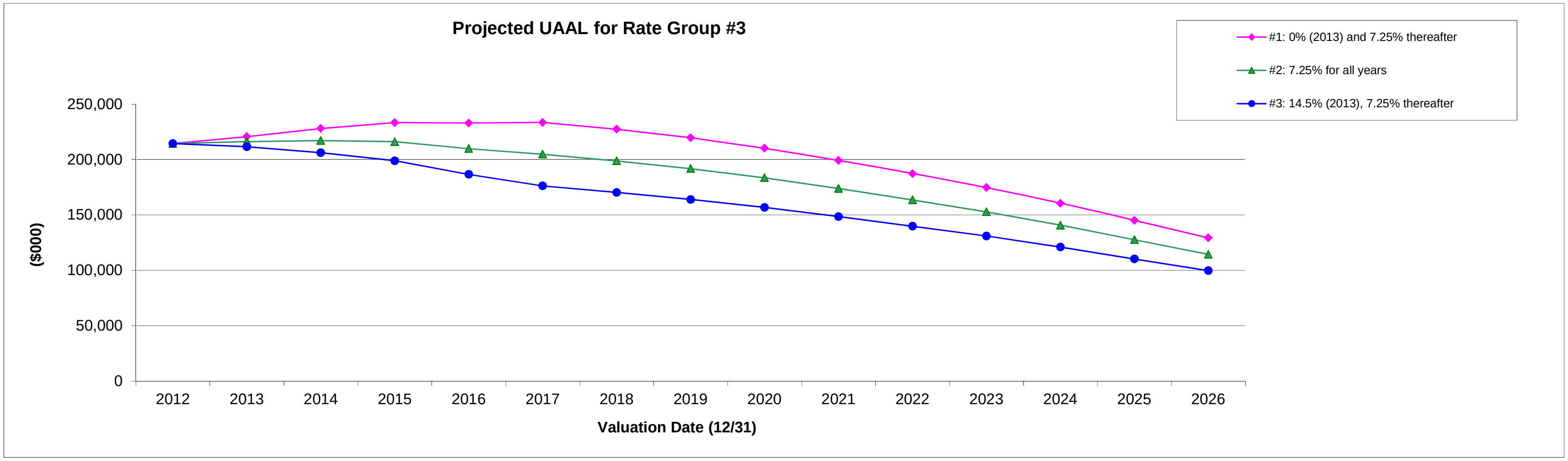
Attachment E
Projected UAAL and Funded Ratio for Rate Group #2
Plans I, J, O, P, S, T and U



UAAL	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
#1: 0% (2013) and 7.25% thereafter	3,442,983	3,552,879	3,683,225	3,782,216	3,789,535	3,810,019	3,728,241	3,621,315	3,489,176	3,334,268	3,161,866	2,968,898	2,747,448	2,516,306	2,291,118
#2: 7.25% for all years	3,442,983	3,474,876	3,499,176	3,494,282	3,405,654	3,339,975	3,259,437	3,164,420	3,051,314	2,918,841	2,772,606	2,609,810	2,422,910	2,231,016	2,050,276
#3: 14.5% (2013), 7.25% thereafter	3,442,983	3,396,872	3,315,121	3,206,325	3,021,669	2,869,722	2,790,531	2,707,543	2,613,602	2,503,644	2,383,591	2,250,986	2,098,656	1,946,030	1,809,596

Funded Ratio															
#1: 0% (2013) and 7.25% thereafter	60.6%	61.7%	62.6%	63.7%	65.6%	67.3%	69.6%	72.0%	74.4%	76.7%	79.0%	81.2%	83.4%	85.4%	87.3%
#2: 7.25% for all years	60.6%	62.5%	64.4%	66.5%	69.1%	71.3%	73.5%	75.5%	77.6%	79.6%	81.6%	83.5%	85.3%	87.1%	88.7%
#3: 14.5% (2013), 7.25% thereafter	60.6%	63.4%	66.3%	69.2%	72.6%	75.3%	77.3%	79.1%	80.8%	82.5%	84.2%	85.7%	87.3%	88.7%	90.0%

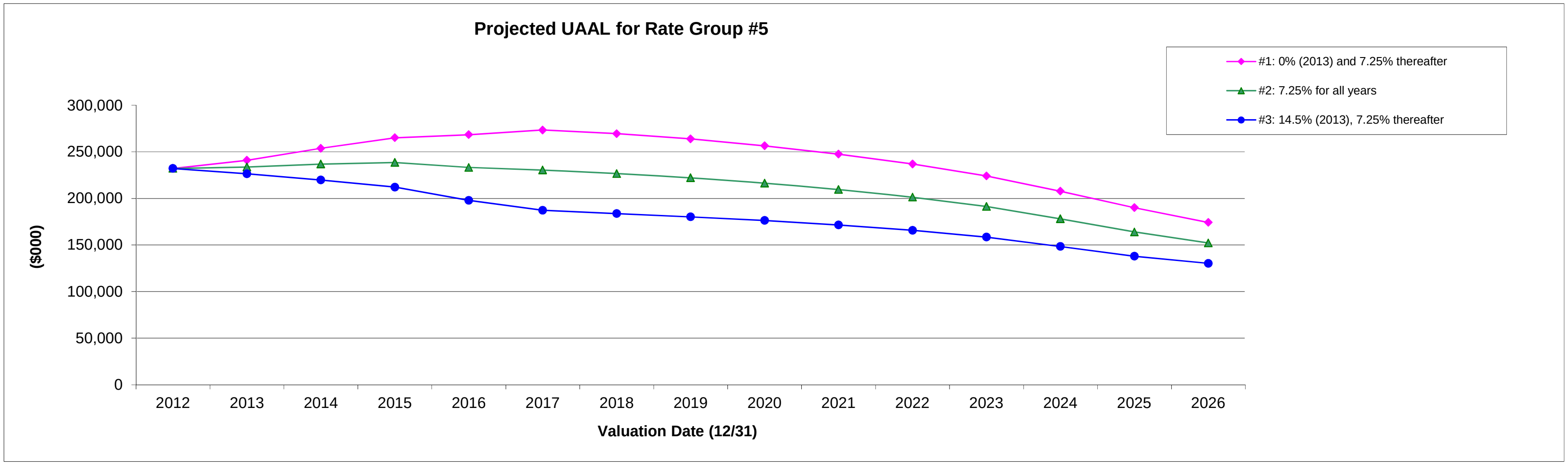
Attachment F
Projected UAAL and Funded Ratio for Rate Group #3
Plans B, G, H and U (Law Library, OCSD)



UAAL	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
#1: 0% (2013) and 7.25% thereafter	214,503	220,757	228,037	233,341	233,006	233,483	227,415	219,663	210,202	199,186	187,337	174,789	160,590	145,148	129,240
#2: 7.25% for all years	214,503	216,174	217,115	216,099	209,823	204,860	198,850	191,812	183,508	173,853	163,586	152,859	140,739	127,667	114,442
#3: 14.5% (2013), 7.25% thereafter	214,503	211,591	206,195	198,872	186,664	176,266	170,307	163,985	156,845	148,556	139,880	130,990	120,971	110,283	99,749

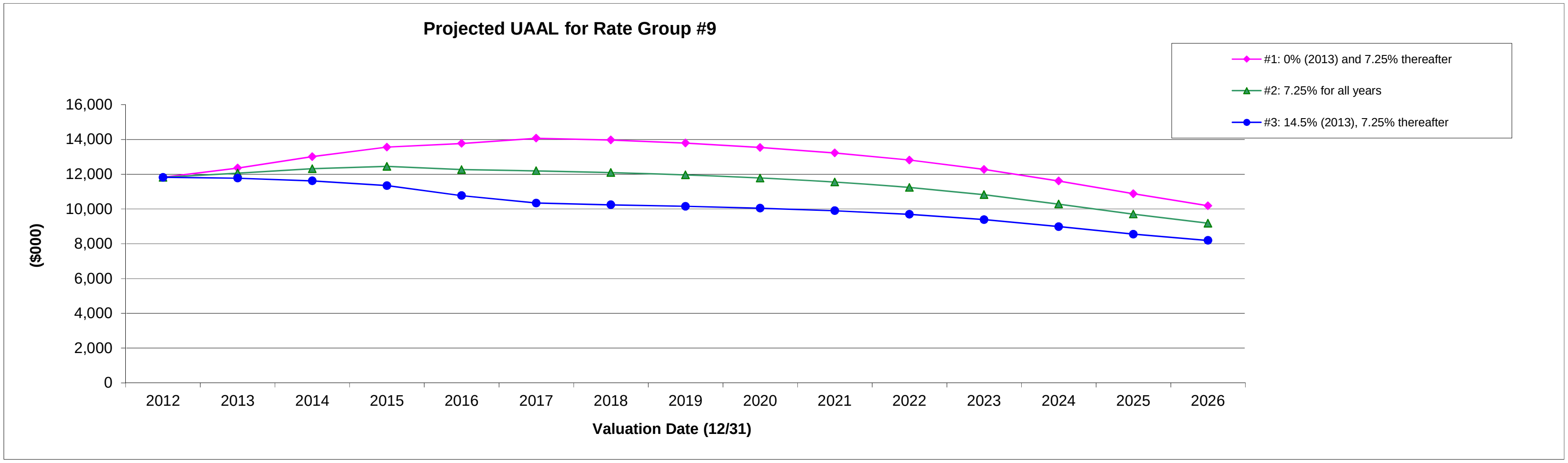
Funded Ratio															
#1: 0% (2013) and 7.25% thereafter	59.0%	60.6%	62.0%	63.6%	66.0%	68.1%	70.8%	73.6%	76.2%	78.8%	81.3%	83.6%	85.8%	87.9%	89.8%
#2: 7.25% for all years	59.0%	61.4%	63.8%	66.3%	69.4%	72.0%	74.5%	76.9%	79.3%	81.5%	83.7%	85.6%	87.5%	89.3%	91.0%
#3: 14.5% (2013), 7.25% thereafter	59.0%	62.2%	65.6%	69.0%	72.7%	75.9%	78.2%	80.3%	82.3%	84.2%	86.0%	87.7%	89.3%	90.8%	92.1%

Attachment G
Projected UAAL and Funded Ratio for Rate Group #5
Plans A, B and U (OCTA)



UAAL	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
#1: 0% (2013) and 7.25% thereafter	232,236	240,957	253,841	265,174	268,531	273,460	269,573	263,895	256,458	247,496	236,958	224,155	207,740	190,091	174,184
#2: 7.25% for all years	232,236	233,716	236,815	238,639	233,274	230,416	226,663	222,089	216,400	209,500	201,373	191,342	178,085	164,031	152,195
#3: 14.5% (2013), 7.25% thereafter	232,236	226,474	219,787	212,089	197,985	187,335	183,719	180,241	176,304	171,469	165,743	158,481	148,394	137,949	130,199
Funded Ratio															
#1: 0% (2013) and 7.25% thereafter	68.0%	68.7%	69.0%	69.5%	70.9%	72.1%	74.0%	76.0%	78.0%	79.9%	81.8%	83.7%	85.7%	87.6%	89.3%
#2: 7.25% for all years	68.0%	69.7%	71.1%	72.6%	74.7%	76.5%	78.2%	79.8%	81.4%	83.0%	84.6%	86.1%	87.8%	89.3%	90.6%
#3: 14.5% (2013), 7.25% thereafter	68.0%	70.6%	73.2%	75.6%	78.6%	80.9%	82.3%	83.6%	84.9%	86.1%	87.3%	88.5%	89.8%	91.0%	92.0%

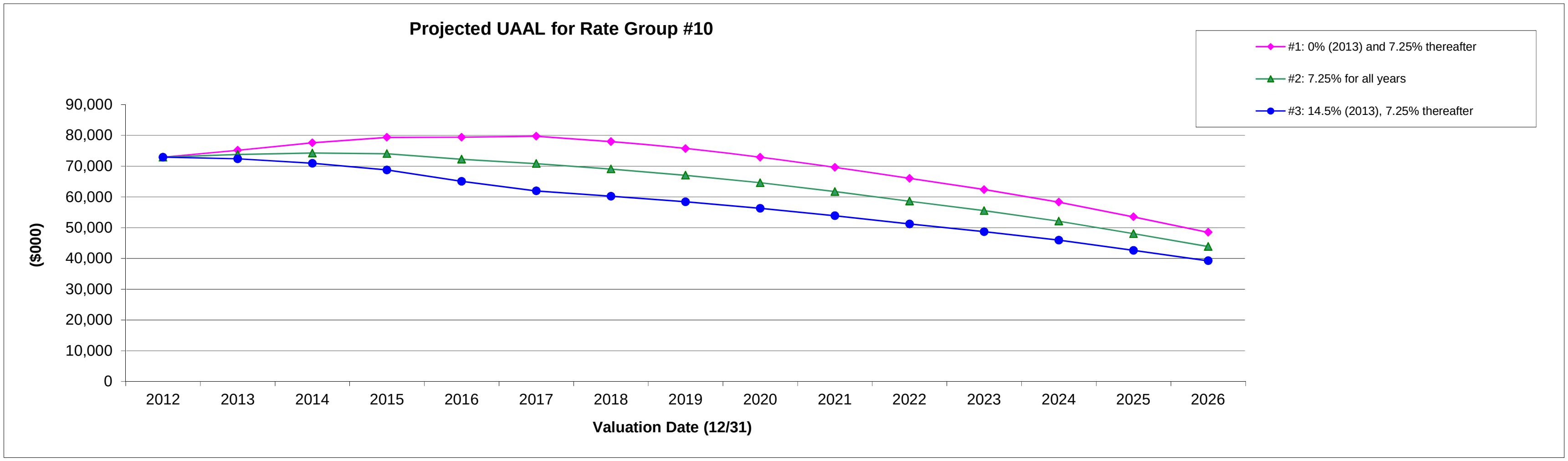
Attachment H
Projected UAAL and Funded Ratio for Rate Group #9
Plans M, N and U (TCA)



UAAL	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
#1: 0% (2013) and 7.25% thereafter	11,822	12,352	13,010	13,558	13,769	14,070	13,968	13,790	13,537	13,221	12,813	12,275	11,606	10,876	10,187
#2: 7.25% for all years	11,822	12,064	12,315	12,451	12,267	12,199	12,095	11,960	11,780	11,550	11,243	10,821	10,283	9,702	9,181
#3: 14.5% (2013), 7.25% thereafter	11,822	11,775	11,621	11,346	10,772	10,341	10,241	10,152	10,047	9,903	9,696	9,389	8,982	8,550	8,196

Funded Ratio															
#1: 0% (2013) and 7.25% thereafter	61.9%	63.6%	64.9%	66.4%	68.6%	70.5%	73.0%	75.4%	77.7%	79.9%	81.9%	84.0%	85.9%	87.8%	89.4%
#2: 7.25% for all years	61.9%	64.4%	66.7%	69.1%	72.1%	74.4%	76.6%	78.7%	80.6%	82.4%	84.1%	85.9%	87.5%	89.1%	90.4%
#3: 14.5% (2013), 7.25% thereafter	61.9%	65.3%	68.6%	71.9%	75.5%	78.3%	80.2%	81.9%	83.4%	84.9%	86.3%	87.7%	89.1%	90.4%	91.4%

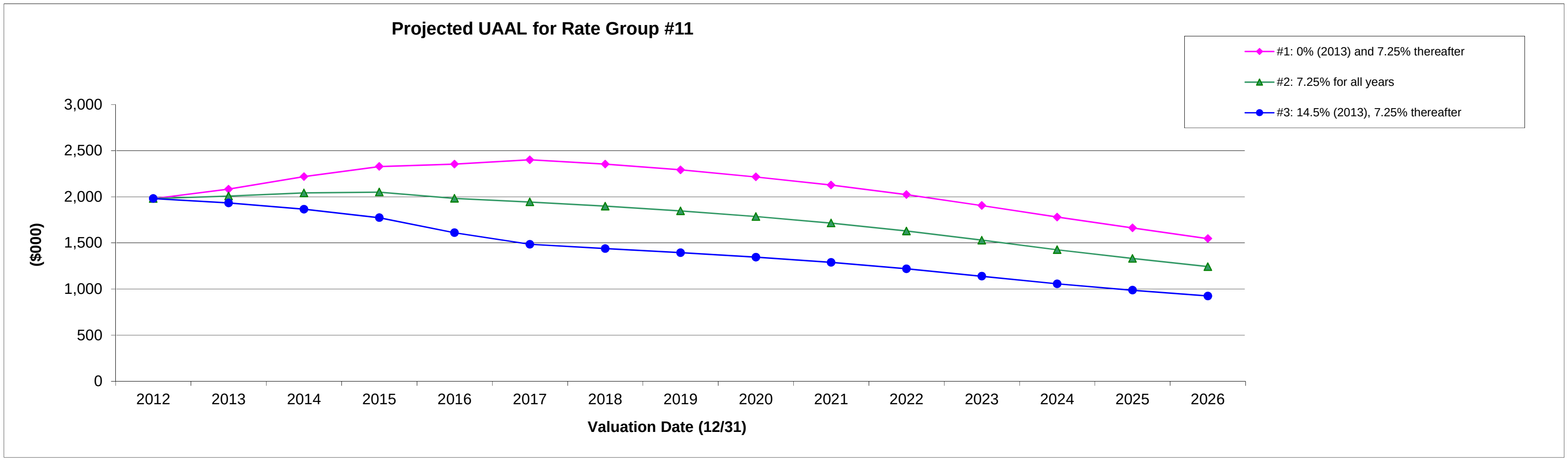
Attachment I
Projected UAAL and Funded Ratio for Rate Group #10
Plans I, J, M, N and U (OCFA)



UAAL	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
#1: 0% (2013) and 7.25% thereafter	72,888	75,149	77,558	79,344	79,383	79,704	77,960	75,694	72,899	69,623	65,994	62,353	58,286	53,493	48,463
#2: 7.25% for all years	72,888	73,759	74,221	74,043	72,214	70,802	69,070	67,022	64,584	61,727	58,587	55,511	52,091	48,035	43,837
#3: 14.5% (2013), 7.25% thereafter	72,888	72,370	70,886	68,748	65,057	61,922	60,201	58,371	56,290	53,854	51,203	48,690	45,915	42,593	39,227

Funded Ratio															
#1: 0% (2013) and 7.25% thereafter	56.0%	57.9%	59.7%	61.7%	64.3%	66.6%	69.5%	72.4%	75.1%	77.8%	80.3%	82.5%	84.7%	86.8%	88.8%
#2: 7.25% for all years	56.0%	58.7%	61.4%	64.2%	67.5%	70.3%	73.0%	75.5%	78.0%	80.3%	82.5%	84.4%	86.3%	88.2%	89.8%
#3: 14.5% (2013), 7.25% thereafter	56.0%	59.5%	63.2%	66.8%	70.7%	74.1%	76.5%	78.7%	80.8%	82.8%	84.7%	86.4%	87.9%	89.5%	90.9%

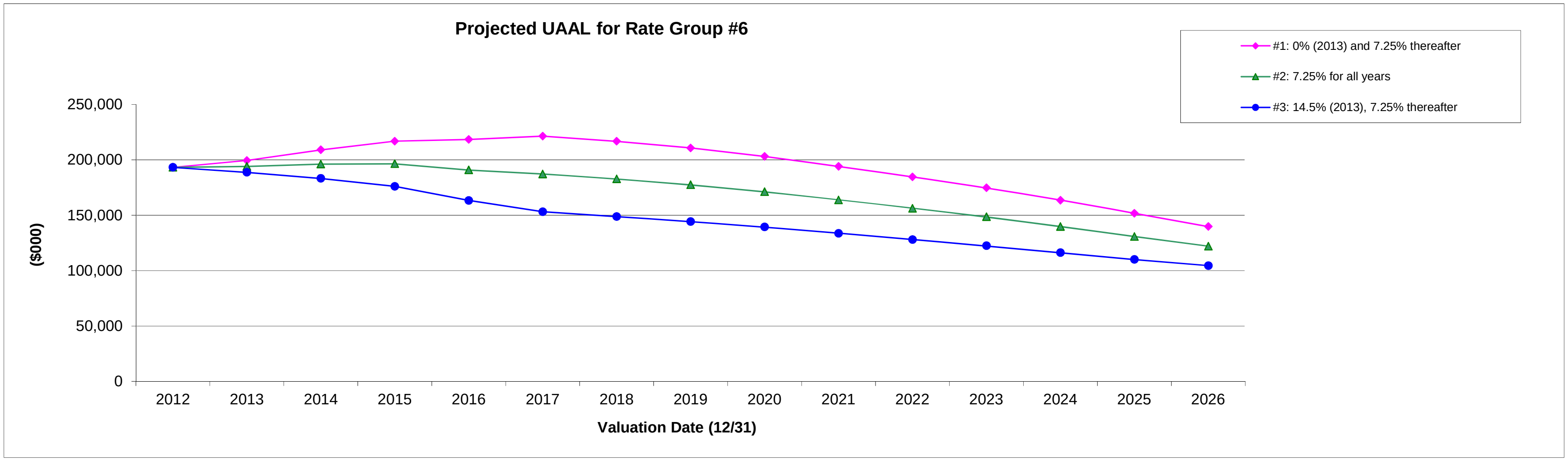
Attachment J
Projected UAAL and Funded Ratio for Rate Group #11
Plans M and N, future service, and U (Cemetery)



UAAL	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
#1: 0% (2013) and 7.25% thereafter	1,981	2,082	2,219	2,328	2,354	2,400	2,354	2,292	2,215	2,127	2,024	1,905	1,780	1,662	1,546
#2: 7.25% for all years	1,981	2,008	2,042	2,050	1,983	1,944	1,898	1,847	1,786	1,715	1,629	1,529	1,425	1,332	1,242
#3: 14.5% (2013), 7.25% thereafter	1,981	1,933	1,865	1,772	1,610	1,485	1,438	1,393	1,345	1,289	1,219	1,139	1,056	987	924

Funded Ratio															
#1: 0% (2013) and 7.25% thereafter	71.8%	72.5%	72.9%	73.6%	75.2%	76.4%	78.5%	80.5%	82.4%	84.2%	86.0%	87.7%	89.2%	90.6%	91.8%
#2: 7.25% for all years	71.8%	73.5%	75.0%	76.7%	79.1%	80.9%	82.7%	84.3%	85.8%	87.3%	88.7%	90.1%	91.4%	92.4%	93.4%
#3: 14.5% (2013), 7.25% thereafter	71.8%	74.5%	77.2%	79.9%	83.0%	85.4%	86.9%	88.1%	89.3%	90.4%	91.6%	92.6%	93.6%	94.4%	95.1%

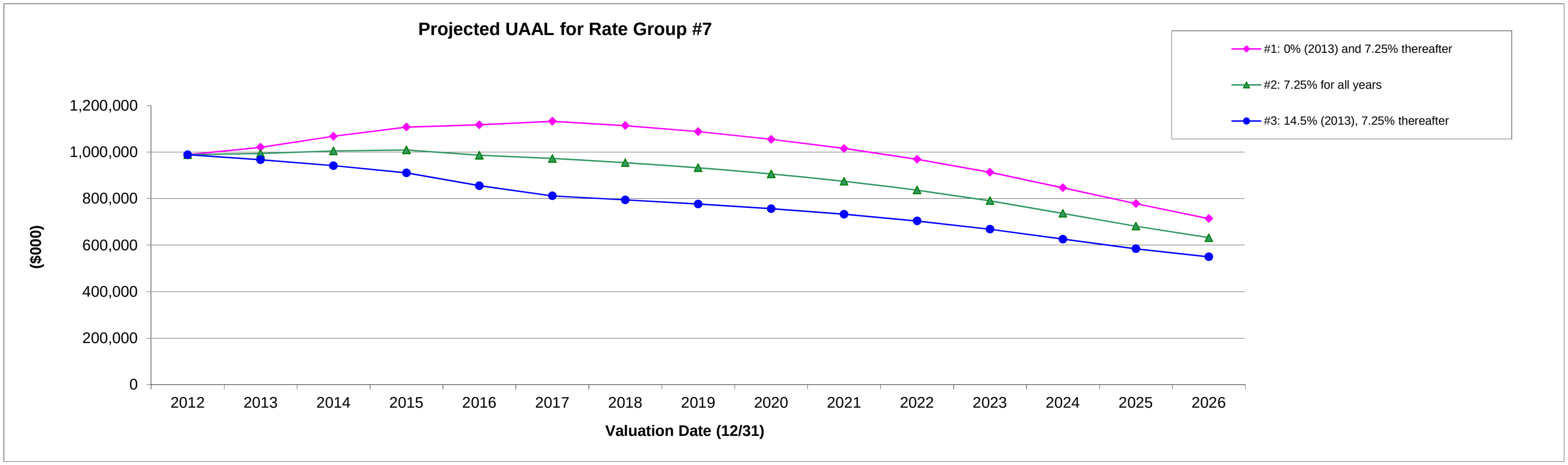
Attachment K
Projected UAAL and Funded Ratio for Rate Group #6
Plans E, F and V (Probation)



UAAL	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
#1: 0% (2013) and 7.25% thereafter	193,245	199,481	209,033	216,906	218,430	221,364	216,827	210,723	203,068	194,087	184,593	174,775	163,543	151,708	139,758
#2: 7.25% for all years	193,245	194,108	196,150	196,490	190,880	187,227	182,744	177,489	171,209	163,840	156,223	148,574	139,823	130,807	122,051
#3: 14.5% (2013), 7.25% thereafter	193,245	188,734	183,272	176,092	163,369	153,163	148,737	144,322	139,418	133,675	127,949	122,477	116,220	110,036	104,484

Funded Ratio															
#1: 0% (2013) and 7.25% thereafter	65.0%	66.7%	67.9%	69.2%	71.4%	73.1%	75.6%	78.0%	80.3%	82.5%	84.5%	86.4%	88.1%	89.7%	91.2%
#2: 7.25% for all years	65.0%	67.6%	69.9%	72.1%	75.0%	77.3%	79.5%	81.5%	83.4%	85.3%	86.9%	88.4%	89.8%	91.1%	92.3%
#3: 14.5% (2013), 7.25% thereafter	65.0%	68.5%	71.8%	75.0%	78.6%	81.4%	83.3%	85.0%	86.5%	88.0%	89.3%	90.4%	91.6%	92.5%	93.4%

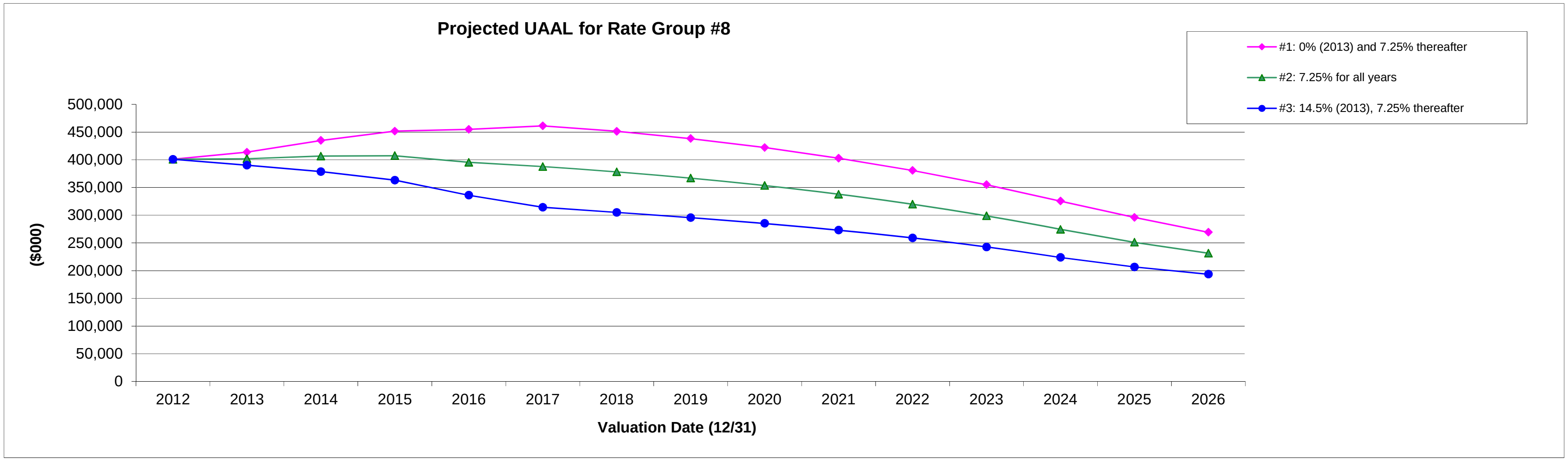
Attachment L
Projected UAAL and Funded Ratio for Rate Group #7
Plans E, F, Q, R and V (Law Enforcement)



UAAL	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
#1: 0% (2013) and 7.25% thereafter	988,418	1,020,358	1,067,550	1,107,358	1,117,035	1,132,157	1,113,680	1,087,879	1,054,811	1,015,284	968,710	912,790	846,311	778,358	713,631
#2: 7.25% for all years	988,418	993,610	1,004,529	1,008,955	986,067	972,046	954,069	932,361	905,803	873,938	836,288	790,657	735,945	681,369	631,791
#3: 14.5% (2013), 7.25% thereafter	988,418	966,862	941,503	910,521	855,019	811,794	794,307	776,720	756,714	732,532	703,801	668,427	625,460	584,283	549,847

Funded Ratio															
#1: 0% (2013) and 7.25% thereafter	64.8%	65.8%	66.3%	67.1%	68.7%	70.1%	72.2%	74.3%	76.5%	78.6%	80.7%	82.7%	84.8%	86.8%	88.5%
#2: 7.25% for all years	64.8%	66.7%	68.3%	70.0%	72.4%	74.3%	76.2%	78.0%	79.8%	81.6%	83.3%	85.0%	86.8%	88.4%	89.8%
#3: 14.5% (2013), 7.25% thereafter	64.8%	67.6%	70.3%	72.9%	76.0%	78.5%	80.2%	81.7%	83.1%	84.5%	85.9%	87.4%	88.8%	90.1%	91.1%

Attachment M
Projected UAAL and Funded Ratio for Rate Group #8
Plans E, F, Q, R and V (Fire Authority)



UAAL	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
#1: 0% (2013) and 7.25% thereafter	400,904	413,738	434,772	451,686	454,961	461,172	451,487	438,461	422,125	402,899	380,744	354,994	325,381	295,984	269,158
#2: 7.25% for all years	400,904	402,003	406,761	407,453	395,465	387,694	378,156	366,967	353,606	337,874	319,793	298,742	274,493	251,194	231,276
#3: 14.5% (2013), 7.25% thereafter	400,904	390,267	378,757	363,248	336,033	314,333	304,952	295,609	285,231	273,005	258,993	242,627	223,743	206,551	193,532

Funded Ratio															
#1: 0% (2013) and 7.25% thereafter	66.2%	67.8%	68.7%	69.9%	71.8%	73.5%	75.9%	78.2%	80.5%	82.6%	84.7%	86.7%	88.6%	90.3%	91.7%
#2: 7.25% for all years	66.2%	68.7%	70.7%	72.8%	75.5%	77.7%	79.8%	81.8%	83.6%	85.4%	87.1%	88.8%	90.4%	91.8%	92.9%
#3: 14.5% (2013), 7.25% thereafter	66.2%	69.6%	72.7%	75.8%	79.2%	81.9%	83.7%	85.3%	86.8%	88.2%	89.6%	90.9%	92.2%	93.2%	94.1%

ADOPTED FY 2013/14 BUDGET

Includes Accelerated Payment of UAAL
Includes Deferred CIP Projects Beginning in 2018/19
Includes Equity Rebates
Includes Handcrew throughout Forecast

	Traditional Five-Year Forecast Period					Extended Ten-Year Forecast				
	ADOPTED 2013/14	PROJECTED 2014/15	PROJECTED 2015/16	PROJECTED 2016/17	PROJECTED 2017/18	PROJECTED 2018/19	PROJECTED 2019/20	PROJECTED 2020/21	PROJECTED 2021/22	PROJECTED 2022/23
BEGINNING FUND BALANCE	**153,558,420**	**140,447,654**	**138,789,479**	**138,171,942**	**132,576,351**	**134,863,592**	**137,881,930**	**144,042,024**	**149,649,037**	**157,673,897**
GENERAL FUND REVENUES										
Property Taxes	187,618,789	192,914,164	200,461,660	208,677,160	216,825,779	225,480,315	234,501,138	243,903,752	253,704,315	263,919,670
State Reimbursements	4,193,788	4,193,788	4,193,788	4,193,788	4,193,788	4,319,602	4,449,190	4,582,665	4,720,145	4,861,750
Federal Reimbursements	100,000	100,000	100,000	100,000	100,000	103,000	106,090	109,273	112,551	115,927
Community Redevelopment Agency Pass-thru	7,149,498	7,326,880	7,511,172	7,706,470	8,248,676	8,413,650	8,581,923	8,753,561	8,928,632	9,107,205
Cash Contracts	83,980,236	87,822,101	90,254,150	92,688,651	94,727,582	99,013,416	103,457,693	107,506,840	111,443,379	115,566,900
Fire Prevention Fee	5,608,437	5,776,690	5,949,991	6,128,491	6,312,345	6,501,716	6,696,767	6,897,670	7,104,600	7,317,738
ALS Supplies & Transport Reimbursement	4,570,574	4,570,574	4,570,574	4,570,574	4,570,574	4,707,691	4,848,922	4,994,390	5,144,221	5,298,548
Interest Earnings	221,379	429,249	626,816	814,907	1,186,005	1,198,358	1,217,241	1,236,945	1,257,598	1,279,177
Other Revenue	998,584	998,584	998,584	998,584	998,584	998,584	998,584	998,584	998,584	998,584
TOTAL REVENUES	**294,441,285**	**304,132,030**	**314,666,735**	**325,878,625**	**337,163,333**	**350,736,331**	**364,857,548**	**378,983,680**	**393,414,026**	**408,465,499**
GENERAL FUND EXPENDITURES										
New Positions for New Stations		1,091,834	2,201,862	2,231,538	4,489,004	4,572,865	6,987,440	7,117,976	9,667,934	9,848,545
Employee Salaries	167,037,200	167,037,200	167,037,200	167,037,200	167,037,200	172,048,316	177,209,765	182,526,058	188,001,840	193,641,895
Retirement - Regular Annual Payments	59,984,495	68,635,549	71,028,235	70,649,208	70,415,902	71,303,995	75,056,876	76,637,840	78,097,620	79,030,991
Retirement - Paydown of UAAL (Rate Reductions)	2,500,000	0	1,292,059	1,653,114	1,886,420	3,167,397	1,648,658	2,368,859	3,279,280	4,787,217
Retirement - Paydown of UAAL ($1M per Year)				1,000,000	2,000,000	3,000,000	4,000,000	5,000,000	5,000,000	5,000,000
Workers' Comp Transfer out to Self-Ins. Fund	12,763,412	13,664,036	13,942,894	14,361,181	14,792,016	15,188,335	15,595,272	16,013,112	16,442,148	16,882,678
Other Insurance	22,040,779	24,052,390	26,248,708	28,656,377	31,292,764	34,171,698	37,315,495	40,748,520	44,497,384	48,591,143
Medicare	2,202,793	2,422,039	2,422,039	2,422,039	2,422,039	2,494,701	2,569,542	2,646,628	2,726,027	2,807,807
Salaries & Employee Benefits	266,528,679	276,903,048	284,172,999	288,010,658	294,335,346	305,947,307	320,383,047	333,058,994	347,712,233	360,590,277
Services & Supplies/Equipment	22,431,181	23,565,686	23,565,686	23,565,686	23,565,686	24,272,657	25,000,836	25,750,861	26,523,387	27,319,089
New Station/Enhancements S&S Impacts		50,653	104,345	107,475	221,399	228,041	352,323	362,893	498,373	513,324
TOTAL EXPENDITURES	**288,959,860**	**300,519,387**	**307,843,029**	**311,683,819**	**318,122,431**	**330,448,004**	**345,736,207**	**359,172,748**	**374,733,992**	**388,422,689**
NET GENERAL FUND REVENUE	**5,481,425**	**3,612,643**	**6,823,705**	**14,194,807**	**19,040,902**	**20,288,327**	**19,121,341**	**19,810,932**	**18,680,034**	**20,042,809**
Incremental Increase in GF 10% Contingency	**363,510**	**1,155,953**	**732,364**	**384,079**	**643,861**	**1,232,557**	**1,528,820**	**1,343,654**	**1,556,124**	**1,368,870**
Equity Rebates	4,219,070	1,731,022	3,607,646	6,843,888	7,842,098	8,170,712	8,513,247	8,870,296	9,242,481	9,958,919
Equity - Accrued Pmt to Irvine from 14/15 & 15/16				3,281,522	2,291,133					
GENERAL FUND SURPLUS / (DEFICIT)	**898,845**	**725,669**	**2,483,695**	**3,685,318**	**8,263,810**	**10,885,057**	**9,079,274**	**9,596,981**	**7,881,428**	**8,715,021**

Attachment 4

Orange County Fire Authority
Unencumbered Fund Balance
1998 - 2013

Fiscal Year	Amount
1998/99	3,866,630
1999/00	1,631,036
2000/01	1,554,081
2001/02	2,185,955
2002/03	2,450,966
2003/04	1,706,428
2004/05	3,995,675
2005/06	4,511,546
2006/07	6,687,369
2007/08	6,392,265
2008/09	9,013,694
2009/10	3,346,916
2010/11	1,244,212
2011/12	5,244,794
2012/13 **	6,134,590 **
Average	**$3,997,744**

** The value for FY 2012/13 is a very preliminary estimate, pending posting of final accounting entries for the fiscal year, and completion of the year-end financial audit.

Orange County Fire Authority
Expedited Payment of UAAL
Snowball Effect of Multiple Strategies

Years	Fiscal Year	Unencumbered Fund Balance Available	Annual Savings based on Projected Reductions to Retirement Contribution Rates *(Notes 1 & 2)*	Annual Increase of $1M/year to OCFA Budget for Retirement Contributions	Annual Snowball Amount	Cumulative Expedited UAAL Payment
		Estimated Annual UAAL Payments from Various Strategies / Sources				
1	13/14	3,000,000	2,500,000	-	5,500,000	5,500,000
2	14/15	3,000,000	-	-	3,000,000	8,500,000
3	15/16	3,000,000	1,292,059	-	4,292,059	12,792,059
4	16/17	3,000,000	1,653,114	1,000,000	5,653,114	18,445,173
5	17/18	3,000,000	1,886,420	2,000,000	6,886,420	25,331,593
6	18/19	3,000,000	3,167,397	3,000,000	9,167,397	34,498,990
7	19/20	3,000,000	1,648,658	4,000,000	8,648,658	43,147,648
8	20/21	3,000,000	2,368,859	5,000,000	10,368,859	53,516,507
9	21/22	3,000,000	3,279,280	5,000,000	11,279,280	64,795,787
10	22/23	3,000,000	4,787,217	5,000,000	12,787,217	77,583,004
11	23/24	3,000,000	5,772,547	5,000,000	13,772,547	91,355,551
12	24/25	3,000,000	6,814,115	5,000,000	14,814,115	106,169,666
13	25/26	3,000,000	14,242,631	5,000,000	22,242,631	128,412,297
14	26/27	3,000,000	19,647,456	5,000,000	27,647,456	156,059,753
15	27/28	3,000,000	20,807,106	5,000,000	28,807,106	184,866,859
16	28/29	3,000,000	26,075,871	5,000,000	34,075,871	218,942,730
17	29/30	3,000,000	26,858,147	5,000,000	34,858,147	253,800,877

Note 1: For FY 2013/14, the OCFA's safety retirement contribution rate was less than 2012/13; however, OCFA held the contribution rate flat in the Adopted Budget, with the $2.5 million difference being directed towards expedited payment of OCFA's UAAL.

Note 2: Beginning in FY 2015/16, the OCFA's retirement contribution rates are projected to begin declining, based on recent 15-year retirement rate projections provided by Segal Consulting (dated August 30, 2013). Rather than decreasing the forecasted line item for retirement contributions to match the newly projected / reduced rates, OCFA will continue paying the same dollar amounts as previously projected, resulting in additional payments towards UAAL. It should be noted that a large part of the savings reflected in these new projections are driven by new tiers of retirement under PEPRA.

Attachment 5

In connection w/Board Agenda Item No. 15
09/26/13

Paying Down OCFA's Unfunded Pension Liability

Orange County Fire Authority

Board of Directors Meeting

September 26, 2013

OCFA's Unfunded Pension Liability

- As of December 31, 2012:

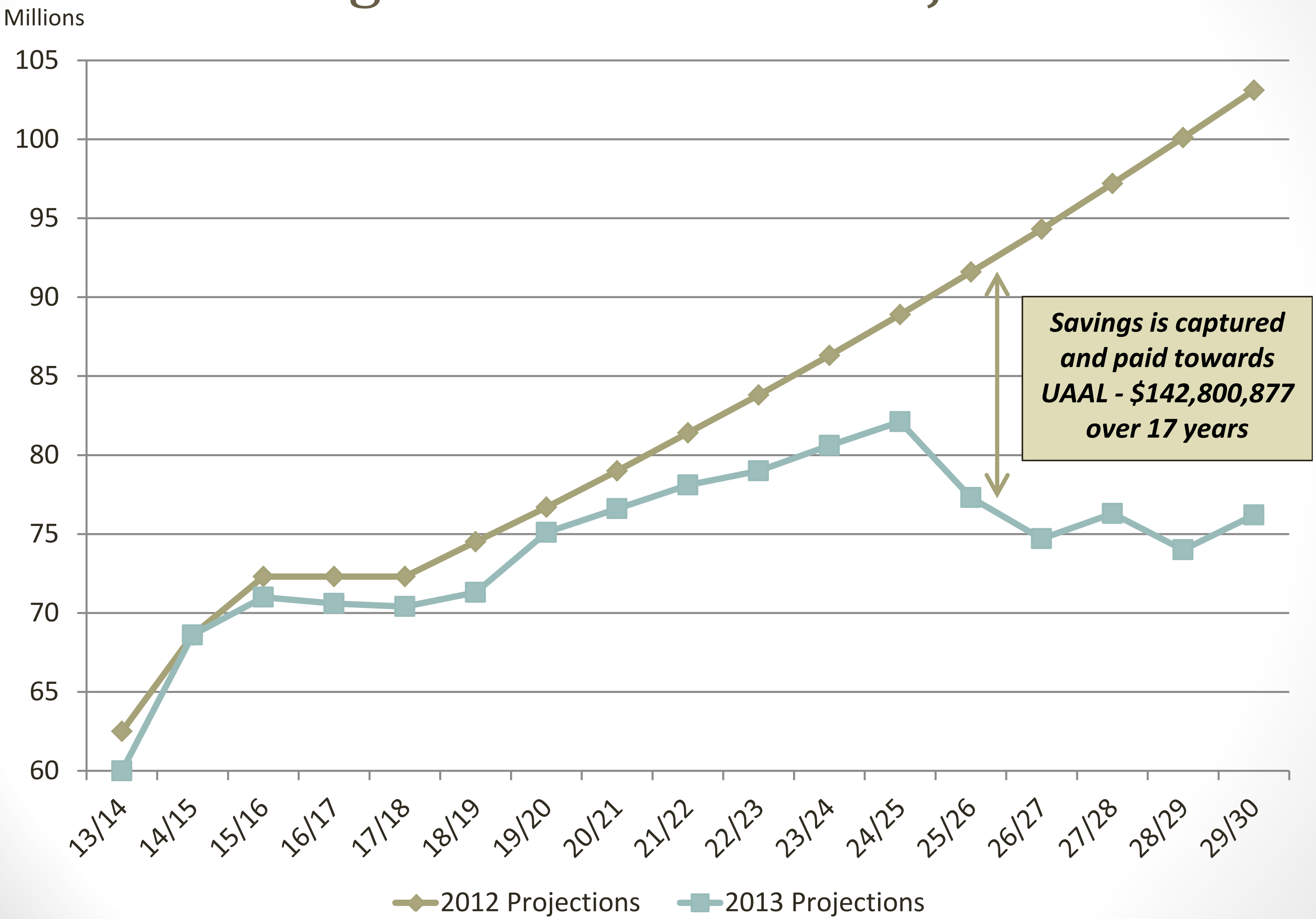
Unfunded Actuarial Accrued Liability	Dollar Amount
Safety Members UAAL	$400,904,000
General Members UAAL	$72,888,000
Total OCFA UAAL	**$473,792,000**

- Current schedule requires OCFA to make annual UAAL payments for the next 29 years

Strategy #1
Use of Year-End Fund Balance

- Results from revenue in excess of budget, or expenditures less than budget (cost containment, frozen positions, etc.)
- Historically averages $3M to $4M per year (1% to 1.5% of budget)
- Previously used for allocations to the Structural Fire Fund Entitlement Fund, capital needs, or workers' compensation
- ***<u>Strategy #1:</u>***
  - ***Recommend use of future year-end fund balance for UAAL***
  - ***Estimated at $3M per year for the next 17 years = $51M***

Strategy #2
Savings from New Rate Projections



Strategy #3
Planned Annual Budget Increases

- The delayed 2016/17 start allows time to adjust to increased costs from OCERS' change in earnings assumption and potential new equity payments.

Fiscal Year	Annual Budget Increase of $1M/Year
2016/17	$1,000,000
2017/18	$2,000,000
2018/19	$3,000,000
2019/20	$4,000,000
2020/21 – 2029/30	$5,000,000 per year
Total over 17 Years	**$60,000,000**

Combined Strategies

Strategy	Totals
Year End Fund Balance	$51,000,000
Savings from Rate Projections	$142,800,877
Annual Budget Increases	$60,000,000
Combined Totals – 17 Years	**$253,800,877**

- If these expedited payments are combined with the annual required UAAL payment, OCERS actuary indicates that full payment of the UAAL could occur within 16 years

Benefits of Plan

- Reduces payment timeline from 29 years to 16 years
- Enables full payment prior to the expiration of the existing JPA
- Captures the opportunity presented from new projected savings resulting from PEPRA and other rate impacts
- Minimizes impact to OCFA's budget and financial forecast
- ***If OCFA can achieve complete payment of its UAAL under this plan, <u>annual</u> retirement costs could potentially drop by $60-$70 million by 2030***

Questions?