FRESNO
COUNTY EMPLOYEES'
RETIREMENT ASSOCIATION

Audit of Valuation Results for June 30, 2005

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August 11, 2006

Mr. Roberto Pena
Retirement Administrator
Fresno County Employees' Retirement Association
1111 H Street
Fresno, CA 93720

Re: Audit of Valuation Results for June 30, 2005

Dear Roberto:

We are pleased to present the results of this audit of the valuation results for June 30, 2005 for the Fresno County Employees' Retirement Association (FCERA). The purpose of this audit was to verify the calculations done by Public Pension Professionals (PPP) and to offer comments on the methodologies, assumptions and results.

This review was conducted by Paul Angelo, a Fellow of the Society of Actuaries, Member of the American Academy of Actuaries, and an Enrolled Actuary under ERISA, and Andy Yeung, an Associate of the Society of Actuaries, Member of the American Academy of Actuaries, and an Enrolled Actuary under ERISA. This review was conducted in accordance with the standards of practice prescribed by the Actuarial Standards Board.

The assistance of PPP is gratefully acknowledged.

We appreciate the opportunity to be of service to the Board and we are available to answer any questions you may have on this report.

Sincerely,

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

DZJ/dvb

cc: Ira Summer, FSA, MAAA, EA

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This report has been prepared by The Segal Company to present an audit of the June 30, 2005 valuation results for Fresno County Employees' Retirement Association (FCERA).

Valuation (Mandatory) Benefits – Regular and Settlement Benefits

The Segal Company has performed an audit of the actuarial valuation performed by the retained actuary. This audit report includes an independent reproduction of the detailed valuation results that appear in the June 30, 2005 valuation report prepared by Public Pension Professionals (PPP) dated June 4, 2006. This audit was based on actuarial assumptions, employee data and supplemental information provided by PPP. In addition, we have included a review of the general reasonableness of the assumptions used by PPP in Exhibit E. This "high level" assumption review provides only a comparison of the assumptions against those we would expect for a retirement system such as FCERA. It is not an independent validation of the PPP assumptions relative to specific FCERA experience.

The scope of the audit included both the total "regular" plus Ventura "settlement" benefits as well as a separate review of just the "settlement" benefits resulting from Ventura litigation.

Our primary focus on this audit was to focus on matching the core numbers on which the plans' ultimate costs depend: the present values of future benefits. The June 30, 2005 data and actuarial asset values were provided by PPP as those used in the June 30, 2005 actuarial valuation.

Non-Valuation (Discretionary) Benefits– Purchasing Power and Additional Retiree Health Benefits

FCERA has also requested that Segal review the non-valuation benefits paid by the Association. They are the purchasing power and additional retiree health benefits.

Our conclusions and recommendations on the valuation (regular and settlement) benefits are summarized as follows:

- Segal's *total regular plus settlement present value of future benefits* as of June 30, 2005 equals 101.2% of PPP's present value. About one-half of the difference arises from the timing as to when PPP assumes the annual statutory 3% maximum cost-of-living adjustment will be paid out by FCERA.

  There is a larger difference in the Safety regular plus settlement benefits because PPP has continued to apply the Safety service retirement probabilities in place prior to the Association's most recent experience study as of June 30, 2003 in their June 30, 2005 valuation. The understatement of present value of benefits for Safety active members only was about 1.4%.

  A detailed comparison of the ratio of present value of benefits by General, Safety, and the entire plan is provided in the following table. The table includes a comparison of the total regular plus settlement benefits as well as a separate comparison of the settlement only benefits.

	Ratio of Segal to PPP Present Value of Benefits		
	General	Safety	Entire Plan
Regular Plus Settlement Benefits	101.2%	101.6%	101.2%
Settlement Only Benefits	100.9%	108.2%	101.9%

  Even though, when evaluated separately, the Safety settlement only benefits fall outside of the 5% range that we would normally consider reasonable, the settlement benefits for the entire plan as well as the regular plus settlement benefits for the Safety plan are in line with the benefits we calculate. For those reasons, we have not attempted to collect the additional data that will be required to reconcile the differences for the Safety settlement only benefits.

- Segal's *total regular plus settlement actuarial accrued liability (AAL)* as of June 30, 2005 equals 102.9% of PPP's liability. Segal's valuation program develops a higher unfunded actuarial accrued liability (UAAL) of about $72.6 million and a higher UAAL contribution rate of about 1.84% of payroll[1] (or $6.5 million per year based on the July 1, 2005-June 30, 2006 estimated payroll of $351.5 million).

A detailed comparison of the ratio of the actuarial accrued liabilities is provided below.

	Ratio of Segal to PPP Actuarial Accrued Liabilities		
	General	Safety	Entire Plan
Regular Plus Settlement Benefits	102.4%	105.1%	102.9%
Settlement Only Benefits	101.7%	110.0%	102.9%

The difference in the Segal and PPP AAL can first be explained by the reasons cited above for the present value of benefits. In addition, there are differences in the methodology used by Segal and PPP in allocating the present value of benefits between AAL and the present value of future normal cost.

- Segal's *total regular plus settlement employer next plan year's normal cost (NC)* as of June 30, 2005 equals 102.8% of PPP's employer normal cost.

  The difference between the Segal and PPP next plan year's NC can first be explained by the reasons cited above for the present value of benefits. In addition, Segal's valuation software calculates the NC rate by taking the dollar NC for those members expected to remain active during the next plan year and expressing that as a percent of payroll for that same group of active members. That rate is also applied to determine a NC for new members who join the Association during the next plan year. In contrast, the PPP methodology does not appear to provide for a NC for the new members, which would produce a small actuarial loss in the next valuation.

  Another reason for the difference in the employer's normal cost rate may be due to the "offset" that we understand has been applied to reflect the payment of the member COL UAAL rate for the settlement benefit, as explained in the next bullet item.

[1] *We have taken the increase in the UAAL and amortized them over 15 years.*

As a result of these differences, our employer normal cost rate is higher by 0.42% of payroll (or $1.5 million per year based on the July 1, 2005-June 30, 2006 estimated payroll of $351.5 million).

A detailed comparison of the ratio of employer normal cost is provided below:

	Ratio of Segal to PPP Employer Next Plan Year's Normal Cost Rate		
	General	Safety	Entire Plan
Regular Plus Settlement Benefits	101.5%	107.5%	102.8%
Settlement Only Benefits	105.4%	126.4%	108.4%

- Segal's *total regular plus settlement member contribution rate, without the phase-in,* as of June 30, 2005 equals 94.4% of PPP's member rate.

PPP's member rate is made up of three components – basic normal cost, cost-of-living (COL) normal cost and COL UAAL.

In reviewing the basic normal cost rates for the Safety members, we observed that PPP has applied an incorrect set of salary increase assumptions that overstated those rates by about 0.4% of payroll. We note that this overstatement will offset the understatement of the COL normal cost and COL UAAL rates due to the incorrect application of the Safety retirement probabilities cited above.

As a result of the Board's discussion outlined in PPP's presentation dated February 11, 2003, the Board has begun to charge the members for a portion of the COL UAAL commencing with the June 30, 2003 valuation. Please note that Segal is not aware of any other 1937 Act System that charges members for any portion of the COL UAAL cost. Since this is an important and uncommon procedure in the development of the member rates, we recommend that a highlight of the legal and actuarial analyses that resulted in the adoption of the procedure be included in the annual valuation report.

We understand that the member COL UAAL rate for the regular benefit was calculated by taking the difference between one-half of the AAL for the COL component of the regular benefits and the "book keeping" reserve calculated by PPP in the Member Accumulated

Contributions Account. The Board should be aware that in developing the Association's UAAL and funding ratio for accounting disclosure purposes, PPP has excluded the member portion of the AAL and actuarial value of assets (i.e., Member Accumulated Contributions Account) from those calculations. Even if it is deemed appropriate to charge the members a cost for the COL UAAL, we recommend that the Board consult with its outside auditor to determine if it is more appropriate to include the member COL UAAL in the development of the Association's UAAL and funding ratio for accounting disclosure purposes.

We understand that PPP determined the member COL UAAL rate for the settlement benefit by taking the COL "loading factor" for the regular benefit and applying that COL "loading factor" to the basic member normal cost rate for the settlement benefit. According to PPP, that aggregate member COL UAAL rate of about 0.97% of payroll for the settlement benefit was then used to reduce the employer's Normal Cost rate and this net employer Normal Cost rate was included in the valuation report. However, we have not received documentation from PPP to confirm that the employer's Normal Cost rate has been reduced by this amount. Futhermore, based on a high level review of the COL UAAL for the settlement benefit and assuming that the basic and COL AAL for the settlement benefits were funded to the same degree, we estimate that only about 0.21% of payroll is required for the members to pay off one-half of the COL UAAL for the settlement benefit. In this report, we have applied this 0.21% of payroll adjustment to approximate the cost to the member and the offset available to the employer.

We believe PPP should be requested to consider changing (or at least developing additional documentation for) the approximation methodology they used for this calculation of the COL UAAL rate for the settlement benefit. Absent any other considerations, we would recommend that PPP apply the same approach they use to determine the COL UAAL for the regular benefit. In addition, we recommend that any offset for member payment of UAAL be applied to the employer UAAL rate instead of the employer NC rate.

- We understand from our discussions with PPP that as a result of the significant increase in the member contribution rates in the June 30, 2003 valuation, the Board decided to phase-in the increase in the General member contribution rates for the July 1, 2004 to June 30, 2005 plan year. The Board intends to charge a higher rate to all the members in future valuations so that no additional cost would be shifted from the members[2] to the employer as a result of this phase-in. We further understand from our discussions with PPP that adjustments in member rates for the phase-in have not been made in the June 30, 2005 valuation for the General and Safety members. This means that the General and Safety employer rates may have been overstated in the June 30, 2005 valuation.

We have not collected the information that would be required to estimate the impact of the overstatement (if any) on the employer's rate and we have excluded that calculation from this report.

- The Board also decided to phase-in the increase to the General and Safety member rates in the June 30, 2004 valuation. That phase-in would impact the General and Safety member rates for the July 1, 2005 to June 30, 2006 plan year. The Board should also be aware that similar adjustments will have to be made in the June 30, 2006 valuation in order to avoid shifting a cost from the members to the employer.

  Since phase-in of member rates would require shifting the cost of funding the benefit from one active generation to another or from the members to the employer, we have seldom seen it done among public plans.

- In reviewing the change in the employer's rates from the June 30, 2004 to the June 30, 2005 valuation, we determined that PPP calculated a net negative employer UAAL contribution rate in the June 30, 2004 valuation even though the Association had a net positive UAAL on its regular plus settlement benefits. This means there was no net amortization payment even though there was a net UAAL.

  The Board should be aware that according to GASB Statement No. 27, this results in the employer having to report a Net Pension Obligation (NPO) on their corresponding financial statements. This is because in a plan, such as FCERA, that amortizes the UAAL using different amortization periods for different "layers" of UAAL, the net amortization payment must be sufficient to fund the net UAAL over a "single equivalent amortization period" of not greater than 40 years[3].

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[2] *Both General and Safety member contribution rates will increase in the future as a result of the phase-in because General and Safety members have a pooled COL UAAL rate.*

[3] *It is 30 years after the ten-year term following the adoption of GASB Statements No. 25 and 27 by the Association and the employer.*

- The County rates, expressed as a percent of payroll, calculated by PPP and Segal for the entire Association are as follows:

County Contribution Rates (% of Payroll) – Regular Plus Settlement Benefits

	Normal Cost	UAAL	Total
PPP	15.26%[4]	3.48%	18.74%
Segal	15.68%	5.13%	20.81%

County Contribution Rates (% of Payroll) – Settlement Only Benefits

	Normal Cost	UAAL	Total
PPP	2.98%	0.50%	3.48%
Segal	3.22%	0.54%	3.76%

- The Member rates, without the phase-in, calculated by PPP and Segal are as follows:

Member Contribution Rates (% of Payroll) – Regular Plus Settlement Benefits

	Basic Normal Cost	COLA Normal Cost	COL UAAL Cost	Total Cost
PPP	4.77%	3.20%	2.62%	10.59%
Segal	4.77%[5]	3.04%	2.19%	10.00%

Member Contribution Rates (% of Payroll) – Settlement Only Benefits

	Basic Normal Cost	COLA Normal Cost	COL UAAL Cost	Total Cost
PPP	1.40%	0.74%	0.97%	3.11%
Segal	1.39%	0.66%	0.21%	2.26%

- Even though a reproduction of the actuarial assumptions adopted by the Board from the June 30, 2003 triennial experience study is beyond the scope of this project, we found the actuarial

[4] *This is the "net" employer normal cost rate from the PPP actuarial valuation report. According to PPP, they have applied the COL UAAL rate they calculated for the settlement benefit of about 0.97% to reduce the employer's actual normal cost rate. We have not received documentation from PPP to confirm how the employer's actual normal cost has been reduced.*

[5] *Based on the same basic normal cost calculated by PPP in their June 30, 2005 valuation. It has not been adjusted to reflect the correction required in the Safety basic normal cost rates.*

assumptions used by PPP to be reasonable and in accordance with generally accepted actuarial standards and principles. A high level review of the assumptions used by PPP is included in Exhibit E.

Our conclusions and recommendations on the non-valuation (discretionary purchasing power and additional retiree health) benefits are summarized as follows:

- Segal's total present value of future benefits for the purchasing power program equals $10.2 million as of June 30, 2005. Our present value of future benefits for this program is substantially the same as that calculated by PPP in their PowerPoint presentation to the Board dated June 7, 2006 entitled "Non-valuation Benefits Issues and Options".

- Also, in PPP's June 7, 2006 presentation, they outlined the total present value of additional retiree health benefits under a few alternative design scenarios as to the group of members that would be eligible to receive a benefit and the percent of benefit that would be continued to an eligible survivor after the death of the member.

  We understand that following the discussions at the June 7, 2006 Board meeting, FCERA decided to continue the benefits for all current and future retiree members and that 100% of the benefit would continue to an eligible survivor after the death of the member until additional studies can be conducted by the Board.

- Based on that plan design, Segal's total present value of additional retiree health benefits equals $89.3 million as of June 30, 2005 while the value calculated by PPP equals $90.4 million. The ratio of the Segal to PPP present value of benefits is 98.8%.

- Since the present values of non-valuation benefits, methods and procedures for calculating such present values by Segal and PPP are not materially different, the rest of the discussions in this report are devoted to the valuation benefits only.

PURPOSE AND SCOPE OF THE ACTUARIAL AUDIT

Purpose of the Audit

The Segal Company has performed an actuarial audit of FCERA to provide assurance to the Board that the actuarial calculations as of June 30, 2005 are reasonable, and that the actuarial process was conducted according to generally accepted actuarial principles and practices.

Scope of the Audit

The scope of the audit, as described in our proposal letter dated November 29, 2005, includes the following:

- A review of the June 30, 2005 valuation data that was used by PPP, including the use and appropriateness of assumptions made regarding such data.
- The completion of a parallel valuation as of June 30, 2005 using the assumptions, methodologies and funding method used by PPP in their performance of the June 30, 2005 valuation. This includes review of calculations for individual members (or test lives) as well as valuation results for all members.
- The evaluation of the parallel valuation results and a reconciliation with PPP of any major discrepancies between the results, assumptions, and methodologies.
- A review and discussion of the FCERA actuarial assumptions and methods.

RESULTS OF THE AUDIT

Several steps are involved in conducting an actuarial audit of a retirement system. Outlined below are the primary steps we took to comply with the scope of the audit services. Following each step is a description of our observations.

***Step 1*: Compare the demographics of the June 30, 2005 valuation data used by PPP for the June 30, 2005 actuarial valuation with those membership statistics summarized by PPP in their June 30, 2005 valuation report.**

Results

Exhibit A provides a comparison, by plan, of the number of members, their average ages, average salaries (active members), average service (active members) and average benefits (pensioners).

Observations and Recommendations

(1) We match with PPP on most demographic information used in the June 30, 2005 valuation. In calculating the UAAL rate, we understand that PPP excluded the salaries for those members who were at least age 70 (60 for Safety members) and had 10 years of service as of the date of the valuation. In our public plan valuations, we have always applied the payroll for all members reported as of the valuation date in determining the UAAL rate. Since the difference between Segal's and PPP's payrolls are very minor, the use of different payrolls has resulted in an insignificant difference in the UAAL rate.

***Step 2*: Develop a valuation program based on the relevant provisions of the County Employees Retirement Law (CERL) as summarized in the Summary Plan Descriptions, using the actuarial methods and assumptions outlined in the most recent valuation report, and further described to us by PPP.**

Step 3: Run the valuation program with specific individuals (test lives) who illustrate particular benefit provisions and conditions, and compare results to PPP's results.

Results

Exhibit B provides a comparison of Segal's and PPP's test life results for (i) the present value of future benefits, (ii) the total employer plus member normal cost rate for the next plan year, and (iii) the actuarial accrued liability. Please note that the results for the test cases are based on the regular plus settlement benefits.

- *Present Value of Future Benefits*: This represents the current or present value of the member's projected benefits, recognizing the time value of money (*i.e*., the investment return assumption), the salary increase assumption and the probabilities of retirement, death, disability and turnover. This value is the cornerstone for the entire valuation as it represents the amount needed to provide all future expected benefit payouts for current members, based on the valuation assumptions.

  The ratios of Segal's results to PPP's results, on a *total present value of future benefits basis*, ranged from 102% to 104% for the active test lives; from 99% to 292% for the vested terminated members and 101% to 133% for the retired and beneficiary members.

  The difference in the results for the vested terminated members, especially the one with a ratio of 292%, can be explained by the fact that PPP did not include the present value of the Section 9 benefit in all the test cases they prepared for us. However, based on the total present value of benefits reported by PPP for all members, we believe that the present value of the Section 9 benefit was included in their valuation.

  This is also the case for the some of the retired and beneficiary members. For one Safety Retiree (with identification number 10063), PPP had valued that retiree with a lifetime benefit even though the data indicated that the retiree had elected option 2 with a 100% joint and survivor benefit.

- *Total Employer Plus Member Normal Cost and Actuarial Accrued Liability:* The funding method adopted by FCERA, the Entry Age Normal Actuarial Cost Method, separates the present value of future benefits for active members into two components, the accrued liability and future years' normal costs. The version of the Entry Age Normal Actuarial Cost Method used by FCERA determines, on an individual member basis, a level cost as a percentage of pay for each year of service, called the normal cost. The actuarial accrued liability is the accumulated value of *past* normal costs less any expected benefit payments (assuming all actuarial assumptions were exactly realized).

The method used to split the present value of projected benefits into its two components can differ somewhat from valuation system to valuation system, even though the underlying funding method used in the systems is the same.

For the active test lives, the ratios of Segal's results to PPP's range from 103% to 125% for the actuarial accrued liability and from 90% to 134% for the June 30, 2005 total employer and member normal cost.

<u>Observations and Recommendations</u>

(1) **Retirement Assumptions –** The test cases for active Safety members revealed that PPP's valuation program was not updated to include the Safety member retirement assumptions adopted by the Board as a result of the June 30, 2003 experience study. We recommend that this be corrected no later than the June 30, 2006 actuarial valuation.

(2) **Survivor Continuance Benefits Under Temporary Annuity Option -** Beneficiaries of members who have elected the Temporary Annuity Option receive a continuance based upon the original unmodified benefit. The data provided to PPP by FCERA contained only the benefits payable before and after age 62, so PPP calculated the liabilities for survivor continuance benefits based on whatever benefit is currently payable under the Temporary Annuity Option, rather than using the amount under the unmodified option. We recommend that, in the future, FCERA provide the actuary with the unmodified benefit (i.e., before the Temporary Annuity Option adjustment) so the liability for members who have chosen the survivor continuance benefits can be calculated more accurately.

(3) **Timing of Cost-of-Living Adjustment (COLA) –** Retired members receive their annual COLA adjustments each April 1. The PPP valuation program contains an implicit assumption that members will receive their next COLA adjustment one year from the current valuation date and each June 30 thereafter. We recommend that PPP's valuation results be adjusted to accurately reflect the statutory timing of COLA's.

(4) **Active Member Death Benefits –** Benefits paid upon the death of an active member with more than five years of service who dies without an eligible survivor are limited to a return of

contributions plus up to six months of salary. PPP's valuation program includes an implicit assumption that this benefit will be paid to members with an eligible survivor in addition to the continuance benefit. We recommend that PPP correct their valuation program to eliminate this overstatement in liability.

(5) **Member Contribution Rates –** In reviewing the basic normal cost rates for the Safety members, we observed that PPP has applied an incorrect set of salary increase assumptions that overstated those rates by about 0.4% of payroll. We recommend that PPP correct their valuation program to eliminate this overstatement of basic normal cost rates for Safety members.

(6) **Timing of Active Member Salary Increase –** In the valuation, PPP implicitly assumed that active members would not receive their salary increases until the end of each actuarial valuation anniversary date. We understand that this assumption was made because they did not have the data to set the approximate timing of the actual salary increases. We recommend that PPP work with FCERA to validate this assumption in the next valuation because if salary increases were to happen earlier in the year, the liabilities in the valuation would have been understated.

(7) **Vested Reciprocal Terminated Members Over Age 63 (55 for Safety) –** In the valuation, PPP projected the salary for those vested reciprocal members but only up through age 63 (55 for Safety). For reciprocal members who are currently over age 63 (or 55 for Safety), we recommend continuing to project the salary to their current ages.

***Step 4*: *Run the valuation program with all participant data, compile results, and compare to PPP's results*.**

<u>Results</u>

Exhibits C and D provide a comparison, by Plan, of Segal's results and PPP's results for (i) the present value of future benefits, (ii) the unfunded actuarial accrued liability and (iii) the normal cost for the period from July 1, 2005 – June 30, 2006 (separated into member and County components). The results for regular and settlement benefits are provided in Exhibit C, and for settlement only benefits in Exhibit D.

- The ratio of Segal's results to PPP's results, on a *total present value of future regular plus settlement benefits basis*, equals 101.6% for active members. For inactive members, the ratio of Segal's regular plus settlement results to PPP's results is 100.8%. In total, our present value of future regular plus settlement benefits is 101.2% of PPP's present value.

- Segal's *total regular plus settlement actuarial accrued liability* (AAL) as of June 30, 2005 equals 102.9% of PPP's liability. Segal's valuation program creates a higher unfunded actuarial accrued liability (UAAL) of about $72.6 million and a higher UAAL contribution rate of about 1.84% of payroll (or $6.5 million per year based on the July 1, 2005-June 30, 2006 estimated payroll of $351.5 million).

- Segal's *net (employer only) normal cost rate for the regular plus settlement benefits* for the next plan year is 102.8% of PPP's net normal cost rate.

- Segal's *total regular plus settlement member next plan year's contribution rate* as of June 30, 2005 equals 94.4% of PPP's member rate.

Observations and Recommendations

(1) Segal's total regular plus settlement present value of future benefits as of June 30, 2005 equals 101.2% of PPP's present value. About one-half of the difference arises from the timing as to when PPP assumes the annual statutory 3% maximum cost-of-living adjustment will be paid out by FCERA.

(2) Segal's total regular plus settlement AAL as of June 30, 2005 equals 102.9% of PPP's AAL. The actuarial accrued liability depends in part on the valuation system's methodology for separating the present value of projected benefits into its two components – the actuarial accrued liability and the present value of future normal costs. The unfunded actuarial accrued liability is then simply the difference between the actuarial accrued liability and the actuarial value of assets (the asset values were provided to us by PPP). Differences in the actuarial accrued liabilities due to different valuation systems also create differences in the unfunded actuarial accrued liabilities.

(3) The aggregate member contribution rate calculated by PPP is higher than that calculated by Segal. We believe the methodology used by PPP for determining one half of the COL UAAL for the settlement benefit may have overstated the member's contribution rate.

Step 5*: *Evaluate the valuation results and methodology as presented in the PPP actuarial valuation report.

Observations and Recommendations

(1) **Aggregate Member Contribution Rates –** The PPP actuarial report did not include the aggregate member contribution rates, making it difficult to determine the portion of total costs paid for by the employer and members. We recommend that PPP be requested to include that information in future reports.

(2) **Development of Member COL UAAL Contribution Rates –** The PPP actuarial report did not include the detail required to determine the member COL UAAL contribution rates. We recommend that PPP be requested to include that information in future reports.

(3) **Development of Member Accumulated Contributions Account –** The PPP actuarial report did not include the detail required to determine the balance in the Member Accumulated Contributions Account. We recommend that PPP be requested to include that information in future reports.

(4) **Legal and Actuarial Analyses Used to Support the Development of Member COL UAAL Contribution Rates –** Since FCERA has applied an uncommon procedure in the development of the member rates, we recommend that a highlight of the legal and actuarial analyses that resulted in the adoption of the procedure be included in the annual valuation report.

(5) **Minimum Amortization Cost under GASB Statement No. 27 –** PPP calculated a net negative employer UAAL contribution rate in the June 30, 2004 valuation even though the Association had a net positive UAAL on its regular plus settlement benefits. This means there was no net amortization payment even though there was a net UAAL in that valuation.

The Board should be aware that according to GASB Statement No. 27, this results in the employer having to report a Net Pension Obligation (NPO) on their corresponding financial statements. This is because in a plan, such as FCERA, that amortizes the UAAL using different amortization periods for different "layers" of UAAL, the net amortization payment must be sufficient to fund the net UAAL over a “single equivalent amortization period” of not greater than 40 years[6].

[6] *It is 30 years after the ten-year term following the adoption of GASB Statements No. 25 and 27 by the Association and the employer.*

EXHIBIT– A
FRESNO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
JUNE 30, 2005 VALUATION
ANALYSIS OF PARTICIPANT DATA

General	PPP	Segal
Active members in valuation		
Number	6,679	6,679
Average age	43.7	43.7
Average service	9.6	9.6
Total compensation	$295,740,566	$296,046,064
Average annual compensation	$44,279	$44,325
Vested terminated members		
Number	1,238	1,238
Average age	48.7	48.6
Service Retirees and Beneficiaries		
Number in pay status	3,748	3,748
Average age	69.1	69.1
Average monthly benefit(1)	$1,958	$1,958
Disabled Retirees		
Number in pay status	181	181
Average age	64.9	64.9
Average monthly benefit(1)	$1,474	$1,474

(1) *Basic plus COLA Regular Plus Settlement Benefits*

EXHIBIT – A (CONTINUED)
FRESNO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
JUNE 30, 2005 VALUATION
ANALYSIS OF PARTICIPANT DATA

Safety	PPP	Segal
Active members in valuation		
Number	965	965
Average age	39.0	39.0
Average service	10.2	10.2
Total compensation	$55,308,619	$55,518,004
Average annual compensation	$57,315	$57,532
Vested terminated members		
Number	88	88
Average age	46.0	46.0
Service Retirees and Beneficiaries		
Number in pay status	398	398
Average age	64.2	64.2
Average monthly benefit(1)	$3,430	$3,430
Disabled Retirees		
Number in pay status	91	91
Average age	54.3	54.3
Average monthly benefit(1)	$2,564	$2,564

(1) *Basic plus COLA Regular Plus Settlement Benefits*

EXHIBIT – B
FRESNO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
JUNE 30, 2005 VALUATION
TEST LIFE COMPARISON

	General 3,231		General 3,241		General 3,328		Safety 17[1]		Safety 646	
ACTIVES	**PPP**	**Segal**	**PPP**	**Segal**	**PPP**	**Segal**	**PPP**	**Segal**	**PPP**	**Segal**
PVB - Death	$1,500	$1,264	$19,828	$15,660	$4,592	$3,618	$14,444	$10,295	$7,665	$4,886
PVB - Disability	1,679	1,763	13,824	14,658	4,447	5,016	46,367	31,033	28,815	28,113
PVB – Withdrawal and Termination	27,895	28,880	0	0	0	0	6,635	9,545	0	0
PVB - Retirement	46,925	47,895	939,096	962,889	350,040	364,355	111,981	133,203	237,659	245,377
Total PVB	**$77,999**	**$79,802**	**$972,748**	**$993,207**	**$359,078**	**$372,990**	**$179,428**	**$184,075**	**$274,139**	**$278,376**
Actuarial Accrued Liability	$26,729	$33,459	$926,941	$952,030	$346,612	$359,575	$24,490	$27,047	$172,334	$207,555
Total Normal Cost Rate for the Next Plan Year (% of Payroll)[2]	10.24%	13.42%	13.12%	15.07%	8.88%	11.89%	28.69%	31.52%	49.79%	44.74%
RATIO OF SEGAL/PPP										
PVB - Death		84%		79%		79%		71%		64%
PVB - Disability		105%		106%		113%		67%		98%
PVB – Withdrawal and Termination		104%		100%		100%		144%		100%
PVB - Retirement		102%		103%		104%		119%		103%
Total PVB		**102%**		**102%**		**104%**		**103%**		**102%**
Actuarial Accrued Liability		125%		103%		104%		110%		120%
Total Normal Cost Rate for the Next Plan Year (% of Payroll)[2]		131%		115%		134%		110%		90%

[1] Reciprocity benefit was not provided for this test case by PPP.

[2] Before adjustment for payment during the next fiscal year.

Note: All Segal test cases include a load for sick leave conversion while PPP test cases do not. We understand that a load was included by PPP in their valuation.

EXHIBIT – B (CONTINUED)
FRESNO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
JUNE 30, 2005 VALUATION
TEST LIFE COMPARISON

For the following inactive vested test cases, PPP test cases do not include Section 9 benefit while Segal test cases do include Section 9 benefit.

	TV General Non-Recip 7650 [(1)]		TV General Non-Recip 7720		TV General Non-Recip 8345		TV General Reciprocal 8378		TV General Reciprocal 8701		TV General Reciprocal 8855 [(2)]		TV General Non-Recip 8989	
INACTIVES	**PPP**	**Segal**	**PPP**	**Segal**	**PPP**	**Segal**	**PPP**	**Segal**	**PPP**	**Segal**	**PPP**	**Segal**	**PPP**	**Segal**
Total PVB	$226	$661	$324,417	$329,010	$335,368	$347,227	$1,279	$1,272	$118,181	$120,361	$545,962	$614,771	$41,003	$42,322
RATIO OF SEGAL/PPP		292%		101%		104%		99%		102%		113%		103%

	TV Safety Reciprocal 7699		TV Safety Non-Recip 7961		TV Safety Non-Recip 8324		TV Safety Reciprocal 8621		TV Safety Reciprocal 8817	
INACTIVES	**PPP**	**Segal**	**PPP**	**Segal**	**PPP**	**Segal**	**PPP**	**Segal**	**PPP**	**Segal**
Total PVB	$12,044	$12,180	$382,469	$383,438	$249,523	$256,570	$78,688	$79,798	$432,981	$440,766
RATIO OF SEGAL/PPP		101%		100%		103%		101%		102%

[(1)] Difference is due to Section 9 benefit. We understand that the Section 9 benefit was included by PPP in their valuation.
[(2)] Member is currently age 65. PPP calculated member's benefit based on projected salary at assumed deferred retirement age of 63 when benefit should be calculated based on projected salary at current age of 65.

EXHIBIT – B (CONTINUED)
FRESNO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
JUNE 30, 2005 VALUATION
TEST LIFE COMPARISON

For the following retiree and beneficiary test cases, PPP test cases do not include Section 9 benefit while Segal test cases do include Section 9 benefit.

RETIREES & BENEFICIARIES	Retiree General 10368		Retiree General 10378		Beneficiary General 10406		Disabled General 10439 [1]		Disabled General 10458		Retiree General 10537		Retiree General 10555 [1]		Retiree General 10591	
	PPP	Segal	PPP	Segal	PPP	Segal	PPP	Segal	PPP	Segal	PPP	Segal	PPP	Segal	PPP	Segal
Total PVB	$134,203	$138,980	$170,268	$175,081	$214,888	$223,902	$209,936	$221,823	$121,516	$126,293	$120,684	$126,709	$142,692	$152,184	$269,078	$282,718
RATIO OF SEGAL/PPP		104%		103%		104%		106%		104%		105%		107%		105%

RETIREES & BENEFICIARIES	Beneficiary Safety 9353		Disabled Safety 9374		Retiree Safety 9466		Disabled Safety 10164		Retiree Safety 10236		Retiree Safety 10343		Disabled Safety 10442	
	PPP	Segal	PPP	Segal	PPP	Segal	PPP	Segal	PPP	Segal	PPP	Segal	PPP	Segal
Total PVB	$39,698	$41,580	$325,472	$329,521	$203,264	$208,886	$171,077	$175,605	$149,929	$155,116	$661,405	$677,052	$376,233	$382,855
RATIO OF SEGAL/PPP		105%		101%		103%		103%		103%		102%		102%

[1] Difference is due to Section 9 benefit. We understand the Section 9 benefit was included by PPP in their valuation. The difference between PPP's and Segals's total PVB excluding Section 9 is less than 0.1%.

For the following retiree test cases, both PPP and Segal test cases include Section 9 benefits.

RETIREES & BENEFICIARIES	Retiree General 10289		Retiree General 10290		Disabled Safety 9855		Retiree Safety 10564	
	PPP	Segal	PPP	Segal	PPP	Segal	PPP	Segal
Total PVB	$1,655,053	$1,667,466	$93,500	$94,201	$480,350	$483,953	$1,355,052	$1,370,648
RATIO OF SEGAL/PPP		101%		101%		101%		101%

For the following retiree test case, PPP valued a life annuity while Segal valued a 100% Joint and Survivor. The valuation data indicated that this member selected an Option 2 benefit.

RETIREES & BENEFICIARIES	Retiree Safety 10063	
	PPP	Segal
Total PVB	$350,482	$464,506
RATIO OF SEGAL/PPP		133%

EXHIBIT – C
FRESNO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
JUNE 30, 2005 VALUATION – REGULAR AND SETTLEMENT BENEFITS
COMPARISON OF RESULTS
(All Dollar Amounts are in Millions)

PRESENT VALUE OF FUTURE BENEFITS (PVB)	General		Safety		Total	
	PPP	Segal	PPP	Segal	PPP	Segal
BASIC plus COLA						
Actives:						
Actuarial Accrued Liability	$922.7	$963.3	$207.1	$227.8	$1,129.8	$1,191.1
PVF Normal Cost	$492.0	$472.6	$144.3	$130.5	$636.3	$603.1
Active Total	**$1,414.7**	**$1,435.9**	**$351.4**	**$358.3**	**$1,766.1**	**$1,794.2**
Inactives:						
Retirees and Beneficiaries	$1,056.4	$1,064.2	$239.1	$241.4	$1,295.5	$1,305.6
Inactive Vesteds	$108.9	$109.9	$11.4	$11.6	$120.3	$121.5
Inactive Total	**$1,165.3**	**$1,174.1**	**$250.5**	**$253.0**	**$1,415.8**	**$1,427.1**
Total PVB	**$2,580.0**	**$2,610.0**	**$601.9**	**$611.3**	**$3,181.9**	**$3,221.3**
BASIC						
Actives:						
Actuarial Accrued Liability	$702.0	$728.7	$154.7	$167.8	$856.7	$896.5
PVF Normal Cost	$375.9	$353.6	$106.8	$94.7	$482.7	$448.3
Active Total	**$1,077.9**	**$1,082.3**	**$261.5**	**$262.5**	**$1,339.4**	**$1,344.8**
Inactives:						
Retirees and Beneficiaries	$684.4	$688.8	$150.8	$154.8	$835.2	$843.6
Inactive Vesteds	$84.5	$84.6	$8.5	$8.6	$93.0	$93.2
Inactive Total	**$768.9**	**$773.4**	**$159.3**	**$163.4**	**$928.2**	**$936.8**
Total PVB	**$1,846.8**	**$1,855.7**	**$420.8**	**$425.9**	**$2,267.6**	**$2,281.6**
RATIO OF SEGAL/PPP						
BASIC plus COLA						
Actives:						
Actuarial Accrued Liability		**104.4%**		**110.0%**		**105.4%**
Normal Cost		**96.1%**		**90.4%**		**94.8%**
Active Total		**101.5%**		**102.0%**		**101.6%**
Inactives:						
Retirees		**100.7%**		**101.0%**		**100.8%**
Inactive Vesteds		**100.9%**		**101.8%**		**101.0%**
Inactive Total		**100.8%**		**101.0%**		**100.8%**
Total PVB		**101.2%**		**101.6%**		**101.2%**
BASIC						
Actives:						
Actuarial Accrued Liability		**103.8%**		**108.5%**		**104.6%**
Normal Cost		**94.1%**		**88.7%**		**92.9%**
Active Total		**100.4%**		**100.4%**		**100.4%**
Inactives:						
Retirees		**100.6%**		**102.7%**		**101.0%**
Inactive Vesteds		**100.1%**		**101.2%**		**100.2%**
Inactive Total		**100.6%**		**102.6%**		**100.9%**
Total PVB		**100.5%**		**101.2%**		**100.6%**

Note: Results may not add due to rounding.

EXHIBIT – C (CONTINUED)
FRESNO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
JUNE 30, 2005 VALUATION – REGULAR AND SETTLEMENT BENEFITS
COMPARISON OF RESULTS
(All Dollar Amounts are in Millions)

UNFUNDED	**General**		**Safety**		**Total**	
ACTUARIAL LIABILITY	**PPP**	**Segal**	**PPP**	**Segal**	**PPP**	**Segal**
Present Value of Future Benefits	$2,580.0	$2,610.0	$601.9	$611.3	$3,181.9	$3,221.3
Combined PV Future NC Contributions	$492.0	$472.6	$144.3	$130.5	$636.3	$603.1
Actuarial Accrued Liability	**$2,088.0**	**$2,137.4**	**$457.6**	**$480.8**	**$2,545.6**	**$2,618.2**
Current Assets at Actuarial Value, Er	$1,657.8	$1,657.8	$386.7	$386.7	$2,044.5	$2,044.5
Current Assets at Actuarial Value, Ee *	$250.5	$250.5	$61.5	$61.5	$312.0	$312.0
Total Assets	**$1,908.3**	**$1,908.3**	**$448.2**	**$448.2**	**$2,356.5**	**$2,356.5**
Unfunded Actuarial Liability	**$179.7**	**$229.1**	**$9.4**	**$32.6**	**$189.1**	**$261.7**
County UAAL Cost Percent (Regular + Section 6)		5.16%		4.51%		
County UAAL Cost Percent (Section 8)		0.09%		0.09%		
County UAAL Cost Percent (Section 9)		0.20%		0.20%		
County UAAL Cost Percent (Total)	**3.94%**	**5.45%**	**1.09%**	**4.79%**	**3.48%**	**5.34%**
RATIO OF SEGAL/PPP						
Actuarial Accrued Liability		**102.4%**		**105.1%**		**102.9%**
Unfunded Actuarial Liability		**127.5%**		**346.8%**		**138.4%**
County UAAL Cost Percent		**138.2%**		**439.5%**		**153.4%**

* This includes current Ee reserve in the Member Accumulated Contributions Account plus future Ee contributions to UAAL
Note: Results may not add due to rounding.

EXHIBIT – C (CONTINUED)
FRESNO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
JUNE 30, 2005 VALUATION – REGULAR AND SETTLEMENT BENEFITS
COMPARISON OF RESULTS
(% of Payroll, Dollar Amounts are in Millions)

	General		Safety		Total	
NORMAL COST FOR THE NEXT PLAN YEAR	**PPP**	**Segal**	**PPP**	**Segal**	**PPP**	**Segal**
Projected Member Contributions Percent in Next Year Before Adjustment		7.73%		8.20%		7.81%
Adjustment to Safety Basic Member Rate				-0.35%		-0.06%
Projected Member Contributions Percent in Next Year After Adjustment		7.73%		7.85%	7.97%	7.75%
County Normal Cost Percent *	**14.43%**	**14.65%**	**19.67%**	**21.14%**	**15.26%**	**15.68%**
Member Basic Rate - Next Plan Year **		4.73%		5.01%		4.77%
Member COL Rate		3.00%		3.19%		3.04%
Member COL UAAL Using 28 Year Amortization*** For the Regular Benefit		1.98%		1.98%		1.98%
Member COL UAAL For the Settlement Benefit (Approximate) ****		0.21%		0.21%		0.21%
Total Member Rate - Next Plan Year		**9.92%**		**10.39%**	**10.59%**	**10.00%**
RATIO OF SEGAL/PPP						
County Normal Cost Percent		**101.5%**		**107.5%**		**102.8%**
Total Member Rate – Next Plan Year		**Not Avail.**		**Not Avail.**		**94.4%**

* This is the "net" employer normal cost rate from the PPP actuarial valuation report. According to PPP, they have applied the COL UAAL rate they calculated for the settlement benefit of about 0.97% to reduce the employer's normal cost. We have not received documentation from PPP to confirm that the employer's actual normal cost rate has been reduced.

** Not adjusted to reflect correction to Safety basic rate.

*** Uses a 15-year amortization schedule for Unfunded COL amounts determined June 30, 2004 and later.

**** Assuming that the basic and COL UAAL for the settlement benefits are funded at the same level and that one-half of the COL UAAL for the settlement benefit is amortized over 15 years.

Note: Results may not add due to rounding.

EXHIBIT – D
FRESNO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
JUNE 30, 2005 VALUATION – SETTLEMENT BENEFITS ONLY
COMPARISON OF RESULTS
(All Dollar Amounts are in Millions)

PRESENT VALUE OF	General		Safety		Total	
FUTURE BENEFITS (PVB)	**PPP**	**Segal**	**PPP**	**Segal**	**PPP**	**Segal**
BASIC plus COLA						
Actives:						
Actuarial Accrued Liability	$218.4	$224.7	$34.6	$42.0	$253.0	$266.7
PVF Normal Cost	$114.7	$111.8	$21.7	$22.1	$136.4	$133.9
Active Total	**$333.1**	**$336.5**	**$56.3**	**$64.1**	**$389.4**	**$400.6**
Inactives:						
Retirees and Beneficiaries	$225.9	$227.2	$40.9	$41.2	$266.8	$268.4
Inactive Vesteds	$22.9	$23.2	$2.3	$2.4	$25.2	$25.6
Inactive Total	**$248.8**	**$250.4**	**$43.2**	**$43.6**	**$292.0**	**$294.0**
Total PVB	**$581.9**	**$586.9**	**$99.5**	**$107.7**	**$681.4**	**$694.6**
BASIC						
Actives:						
Actuarial Accrued Liability	$167.6	$171.2	$26.0	$31.3	$193.6	$202.5
PVF Normal Cost	$87.9	$84.6	$16.4	$16.4	$104.3	$101.0
Active Total	**$255.5**	**$255.8**	**$42.4**	**$47.7**	**$297.9**	**$303.5**
Inactives:						
Retirees and Beneficiaries	$165.7	$170.1	$29.4	$33.0	$195.1	$203.1
Inactive Vesteds	$18.0	$18.1	$1.8	$1.8	$19.8	$19.9
Inactive Total	**$183.7**	**$188.2**	**$31.2**	**$34.8**	**$214.9**	**$223.0**
Total PVB	**$439.2**	**$444.0**	**$73.6**	**$82.5**	**$512.8**	**$526.5**
RATIO OF SEGAL/PPP						
BASIC plus COLA						
Actives:						
Actuarial Accrued Liability		**102.9%**		**121.4%**		**105.4%**
Normal Cost		**97.4%**		**101.7%**		**98.1%**
Active Total		**101.0%**		**113.8%**		**102.9%**
Inactives:						
Retirees		**100.6%**		**100.7%**		**100.6%**
Inactive Vesteds		**101.3%**		**104.3%**		**101.6%**
Inactive Total		**100.6%**		**100.9%**		**100.7%**
Total PVB		**100.9%**		**108.2%**		**101.9%**
BASIC						
Actives:						
Actuarial Accrued Liability		**102.1%**		**120.4%**		**104.6%**
Normal Cost		**96.2%**		**100.0%**		**96.8%**
Active Total		**100.1%**		**112.5%**		**101.9%**
Inactives:						
Retirees		**102.7%**		**112.2%**		**104.1%**
Inactive Vesteds		**100.6%**		**100.0%**		**100.5%**
Inactive Total		**102.4%**		**111.5%**		**103.8%**
Total PVB		**101.1%**		**112.1%**		**102.7%**

Note: Results may not add due to rounding.

EXHIBIT – D (CONTINUED)
FRESNO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
JUNE 30, 2005 VALUATION – SETTLEMENT BENEFITS ONLY
COMPARISON OF RESULTS
(All Dollar Amounts are in Millions)

UNFUNDED ACTUARIAL LIABILITY	**General**		**Safety**		**Total**	
	PPP	**Segal**	**PPP**	**Segal**	**PPP**	**Segal**
Present Value of Future Benefits	$581.9	$586.9	$99.5	$107.7	$681.4	$694.5
Combined PV Future NC Contributions	$114.7	$111.8	$21.7	$22.1	$136.4	$133.8
Actuarial Accrued Liability	**$467.2**	**$475.1**	**$77.8**	**$85.6**	**$545.0**	**$560.7**
Current Assets at Actuarial Value, Er (Section 6)	$285.5	$285.5	$61.2	$61.2	$346.7	$346.7
Current Assets at Actuarial Value, Er (Section 8)	$86.2	$86.2	$16.2	$16.2	$102.4	$102.4
Current Assets at Actuarial Value, Er (Section 9)	$27.0	$27.0	$5.1	$5.1	$32.1	$32.1
Total Assets	$398.7	$398.7	$82.5	$82.5	$481.2	$481.2
Unfunded Actuarial Liability	**$68.5**	**$76.4**	**$(4.7)**	**$3.1**	**$63.8**	**$79.5**
Section 6 Only UAAL		$57.6		$5.2		$62.8
Section 8 Only UAAL		$8.0		$(3.0)		$5.0
Section 9 Only UAAL		$10.8		$0.9		$11.6
Section 6 Only UAAL Rate	0.54%	0.53%	-1.17%	-1.18%	0.27%	0.26%
Section 8 Only UAAL Rate	0.07%	0.09%	0.07%	0.09%	0.07%	0.09%
Section 9 Only UAAL Rate	0.17%	0.20%	0.17%	0.20%	0.17%	0.20%
County UAAL Cost Percent (Total)	**0.78%**	**0.81%**	**-0.93%**	**-0.90%**	**0.50%**	**0.54%**
RATIO OF SEGAL/PPP						
Actuarial Accrued Liability		**101.7%**		**110.0%**		**102.9%**
Unfunded Actuarial Liability		**111.5%**		**-66.0%**		**124.6%**
County UAAL Cost Percent		**104.1%**		**96.3%**		**108.4%**

Note: Results may not add due to rounding.

EXHIBIT – D (CONTINUED)
FRESNO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
JUNE 30, 2005 VALUATION – SETTLEMENT BENEFITS ONLY
COMPARISON OF RESULTS
(% of Payroll, Dollar Amounts are in Millions)

	General		Safety		Total	
NORMAL COST FOR THE NEXT PLAN YEAR	**PPP**	**Segal**	**PPP**	**Segal**	**PPP**	**Segal**
Projected Member Contributions Percent in Next Year		2.15%		1.46%	2.14%	2.05%
County Normal Cost Percent	**3.02%**	**3.18%**	**2.72%**	**3.44%**	**2.97%**	**3.22%**
Member Basic Rate - Next Plan Year		1.47%		1.00%		1.39%
Member COL Rate		0.68%		0.46%		0.66%
Total Member Rate – Next Plan Year (Excluding COL UAAL rate)		**2.15%**		**1.46%**		**2.05%**
RATIO OF SEGAL/PPP						
County Normal Cost Percent		**105.3%**		**126.5%**		**108.4%**
Total Member Rate – Next Plan Year		**Not Avail.**		**Not Avail.**		**Not Avail.**

Note: Results may not add due to rounding.

EXHIBIT E
FRESNO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
JUNE 30, 2005 VALUATION
HIGH LEVEL REVIEW OF ASSUMPTIONS

As part of our assignment, we reviewed the general reasonableness of the PPP actuarial assumptions used in the June 30, 2005 actuarial valuation. This "high level" review provides a comparison of the PPP assumptions against those we would expect for a retirement system such as FCERA. It is not a validation of the PPP assumptions:

Economic Assumptions

- Inflation Rate – The 4.00% assumption is a reasonable long term assumption, although it is slightly on the high side compared with other California public retirement systems and NASRA's FY 2004 Public Fund Survey. We did note that the 4.00% inflation rate is used for both price inflation and salary inflation; in other words, it is assumed that average salary COLA increases will not exceed price inflation. This may be reasonable in the short term, but national pay inflation measures for governmental employees since 1980 indicate that COLA pay increases have exceeded price inflation. Segal generally assumes that COLA pay increases will exceed inflation (referred to as the "Across the Board" component) by 0.25% for its 1937 Act clients. We often introduce or increase this component at the same time that we recommend a decrease in the price inflation assumption.
- Merit Salary Increase – The June 30, 2003 experience study used a point-in-time comparison of average salaries at contiguous service intervals to develop the merit salary increase component. It is unclear as to whether the point in time taken is the beginning or the end of the experience period, or uses some average of the four possible points in the period. This methodology is attractive since it is simple and (due to its point in time nature) it eliminates the need for a secondary adjustment to remove the inflation and Across the Board components. However, the methodology will only produce valid results if the total salary experience within each service interval is reflective of the organization as a whole, which may be unlikely in a county the size of Fresno. Otherwise it could mask or be affected by local effects, such as interdepartmental pay differentials. We recommend that, if this method is to be used in the next experience study, the results be compared to those obtained by tracking individual member increases over the experience period.

- Real Rate of Investment Return – The 4.00% real rate of investment return appears reasonable. Also, the 8.00% total rate of return is consistent with the average investment return rate used by participants in NASRA's FY 2004 Public Fund Survey.

Noneconomic Assumptions

- Withdrawal and Vested Termination – We noticed that some of the recommended termination rates diverged materially from the actual rates during the experience period (e.g., under age 44 safety members.) The experience study should be expanded to document the justification for any material divergence.
- Ordinary and Duty Disability - PPP noted that they observed few disabilities in the study. Discussions with FCERA staff indicated there were long delays in getting disabilities approved. PPP ultimately decided not to change assumptions due to lack of data. We recommend that pending disabilities as of 6/30/03 be tracked and used in the next study to supplement the approved disabilities, or, if that's not feasible, a longer experience period (e.g. six years) should be used.
- Service Retirement – As mentioned under Step 3 in the audit results, the test cases for active Safety members revealed that PPP's valuation program was never updated to include the Safety member retirement assumptions adopted by the Board as a result of the June 30, 2003 experience study.
- Postretirement Mortality – We found no analysis of healthy retiree mortality in the experience study. PPP uses the RP-2000 Healthy Mortality table with adjustment for white collar for General members and the PP-2000 Healthy Mortality table with adjustment for blue collar for Safety members. An experience comparison against these tables would be useful to demonstrate their appropriateness.
- Postretirement Mortality – We found no analysis of disability retiree mortality in the experience study. PPP uses the Disabled Life RP-2000 Table. There was no documentation in the report demonstrating that the definition of disability underlying that table is consistent with the 37 Act definition. An experience comparison against this table would be useful to demonstrate its appropriateness.
- Preretirement Mortality – PPP indicated that they did not have enough data to analyze. We recommend that a standard mortality table be considered as a basis for this assumption rather than a unique FCERA's table. Service related death rates for Safety members could be set as a flat percentage of total safety deaths, similar to the approach currently used for disabilities.
- Marital Status - We could find no analysis of experience in the report. We recommend that the justification for all assumptions be documented in the experience study report.

- Reciprocity – We could find no analysis of experience in the report. We recommend that the justification for all assumptions be documented in the experience study report.
- Timing of Active Member Salary Increase – In the valuation, PPP implicitly assumed that active members would not receive their salary increases until the end of each actuarial valuation year. We understand that this assumption was made because they did not have the data to set the approximate timing of the actual salary increases. We recommend that PPP work with FCERA to validate this assumption in the next valuation because if salary increases were to happen earlier in the year, the liabilities in the valuation would have been understated.

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