

Fresno County Employees' Retirement Association

Actuarial Valuation and Review as of
June 30, 2014



✦ Segal Consulting

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

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December 29, 2014

*Board of Retirement
Fresno County Employees' Retirement Association
1111 "H" Street
Fresno, CA 93721*

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of June 30, 2014. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2015-2016 and analyzes the preceding year's experience.

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

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

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

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

Sincerely,

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

By: 

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

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SECTION 1: Valuation Summary for the Fresno County Employees' Retirement Association

Purpose

This report has been prepared by Segal Consulting to present a valuation of the Fresno County Employees' Retirement Association as of June 30, 2014. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

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

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

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

The contribution requirements are determined as a percentage of payroll. The Association's employer rates provide for both normal cost and a payment or credit to amortize any unfunded or overfunded actuarial accrued liabilities. In this valuation, we have continued with the Board's funding policy to amortize the Association's outstanding balance of the unfunded actuarial accrued liability (UAAL) established as of June 30, 2003 over a declining period with 19 years remaining as of June 30, 2014. Any new UAAL established on each subsequent actuarial valuation after the June 30, 2003 valuation as a result of actuarial gains or losses, changes in actuarial assumptions or plan amendments¹ is amortized over separate 15-year declining periods.

¹ Prior to the Board's most recent review of actuarial funding policy in April 2011, a 30-year amortization period was used for plan amendments.

SECTION 1: Valuation Summary for the Fresno County Employees' Retirement Association

Please note that the Actuarial Standards Board's Actuarial Standard of Practice (ASOP) No. 4 provides guidelines that actuaries have to follow when selecting actuarial assumptions. For a plan such as that offered by the Retirement Association that may utilize excess earnings to provide contribution rate offsets and additional settlement and non-statutory benefits, we are required to indicate in the valuation report that the possible impact of any such application of future excess earnings on the future financial condition of the plan has not been explicitly measured in the valuation.²

The rates calculated in this report may be adopted by the Board for the fiscal year that extends from July 1, 2015 through June 30, 2016.

Significant Issues in Valuation Year

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

- | | | |
|-------------------|--------------------------|--|
| <i>Reference:</i> | <i>Pg. 14</i> | ➤ The results of this valuation reflect a change to the administrative expense assumption as recommended by Segal and adopted by the Board for the June 30, 2014 valuation. The investment return assumption of 7.25% will no longer be developed as net of administrative expenses, and instead include an explicit administrative expense load of 1.10% of payroll. The administrative expense load has been allocated to both the employer and member rates based on the components of the total average contribution rate before expenses for the employer and member. This results in an explicit administrative expense load of 0.93% and 0.17% of payroll allocated to the employer and the member rates, respectively. All contribution rates shown in this report reflect these explicit loadings for administrative expenses. |
| <i>Reference:</i> | <i>Pg. 45
Pg. 95</i> | ➤ After crediting interest (as of December 31, 2013 and June 30, 2014) to the valuation reserves and reconciling the balance of the available earnings in the Contingency Reserve and Contra Tracking Account, the Association had to restate the balances as of June 30, 2014 in the Retiree Health Benefit Reserve (BOR) (non-valuation reserve), the Retiree Health Benefit Reserve (Section 9) (valuation reserve) and Contra Tracking Account. ³ The net effect of the revision is to correct for \$8.7 million that was deposited in the Retiree Health Benefit Reserve (BOR) instead of the Retiree Health Benefit Reserve (Section 9) in 2004. That amount when adjusted with interest credits was \$17.9 million as of June 30, 2014. After the correction, the balance of Retiree Health Benefit Reserve (BOR) became -\$777,081 as of June 30, 2014 as a result of |

² It should be noted that under the Board's interest crediting policy, the valance of \$604.0 million (negative) in the Contra Tracking Account has to be fully restored before any excess earnings can be utilized in the future to provide any of the above offsets and benefits.

³ In addition, a portion of the new \$3.3 million balance in the Contingency Reserve could instead have reduced the amount of increase in the Contra Tracking Account, which would have increased the valuation values of assets by the same amount. This adjustment is under further review and, if appropriate, will be made in a future interest crediting period.

SECTION 1: Valuation Summary for the Fresno County Employees' Retirement Association

overpayment that happened during fiscal year 2014. The Board has decided to maintain the negative balance in that Reserve so that any undistributed earnings may be applied in the future to offset that balance.

Reference: Pg. 5
Pg. 45

For actuarial valuation purposes, we have limited the balance in the Retiree Health Benefit Reserve (BOR) to be no less than \$0 in determining the valuation value of assets as of June 30, 2014 because excluding a negative balance in that non-valuation reserve would have the unintended consequence of increasing the asset value used in the valuation until that negative balance is offset by future undistributed earnings.

Reference: Pg. 41

- In preparing the membership data for the June 30, 2014 valuation, the Association has reclassified the status of 130 members previously reported in the June 30, 2013 valuation as terminated members who received a refund of member contributions (and are therefore due no additional future benefits from the Association). The refund information provided in that file has been very reliable in the past in that few records were subsequently reclassified to other status in a future valuation (e.g., out of a total of 1,543 records reported in the data for the June 30, 2012 valuation, only five records were reclassified in the 2013 valuation).

However, in preparing the June 30, 2014 valuation data, we were informed by the Association that there were 130 terminated members who should have been classified as 58 retirees and 72 vested terminated members because the old pension administration system would default a member to a terminated refund status and would not allow FCERA staff to override that status unless they manually populate the data for those members.

The Association has switched to reporting membership data using the new pension administration system. It is our understanding that the new system will no longer default members who switch status during the year to a terminated refund status. Based on that understanding, we do not believe after talking to the Association that this type of correction will have to be made again in the future.

Reference: Pg. 45

- On June 30, 2014, after crediting interest to the various reserve accounts at the assumed earnings rate and restating the balances in the Retiree Health Benefit Reserve (BOR) and Retiree Health Benefit Reserve (Section 9), the balance of the Contra Tracking Account increased from \$588.3 million as of June 30, 2013 to \$604.0 million as of June 30, 2014.

Reference: Pg. 46

- In this June 30, 2014 valuation, the UAAL has decreased from \$1,175.8 million to \$1,052.5 million when determined on a valuation (smoothed) value of assets basis. On a market value basis, the UAAL decreased from \$1,215.7 million to \$831.3 million. The funded ratio on a valuation value of assets basis has increased from 75.0% to 78.4%, while on a market value basis, the funded ratio has increased from 74.1% to 83.0%. A reconciliation of the Association's unfunded actuarial accrued liability is provided in Section 3, Exhibit H.

Reference: Pg. 19

- The aggregate employer rate calculated in this valuation has decreased from 52.76% of payroll to 52.56% of payroll. The reasons for this change are: (i) higher than expected return on investments (based on valuation value of assets after

SECTION 1: Valuation Summary for the Fresno County Employees' Retirement Association

smoothing), (ii) salary increases less than expected, (iii) lower than expected COLA increases, (iv) restatement of the balance in the Retiree Health Benefit Reserve (Section 9), and (v) other actuarial gains, offset to some degree by (vi) one year delay in implementing employer and employee contribution rates calculated in the June 30, 2013 valuation, (vii) increase in UAAL rate due to less than expected increase in total payroll, (viii) member reclassification made by the Association, and (ix) a change to include an explicit load for administrative expenses to the contribution rates. A reconciliation of the Association's aggregate employer rate is provided in Section 2, Subsection D (see Chart 15).

- Reference:* Pg. 20
- The aggregate member rate calculated in this valuation has increased from 9.44% of payroll to 9.58% of payroll. The change in the aggregate member rate is due to a change to include an explicit load for administrative expenses to the contribution rates, offset to some degree by changes in membership demographics for the June 30, 2014 valuation. A reconciliation of the Association's aggregate member rate is provided in Section 2, Subsection D (see Chart 16).
- Reference:* Pg. 95
- The employer and member rates developed in this valuation have been determined only with respect to the Regular and the Settlement benefits. Assets and liabilities associated with the non-vested supplemental benefits (i.e., discretionary purchasing power and additional retiree health benefits, if any,) have been excluded from the development of the employer and member rates. However, a comparison of the reserve maintained by the Board for the non-vested supplemental benefits and the annual cash payment requirement is provided in Appendix B.
- Reference:* Pg. 5
- As indicated in Section 2, Subsection B (see Chart 7) of this report, the net total unrecognized investment gains as of June 30, 2014 are \$221.3 million compared to the net total unrecognized investment losses of \$39.9 million as of June 30, 2013. These investment gains will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years, and will offset any investment losses that may occur after June 30, 2014. This means that if the Association earns the assumed net rate of investment return of 7.25% per year on a **market value** basis, that will result in investment gains on the actuarial value of assets in the next few years. So, if the actual market return is equal to the assumed 7.25% rate and all other actuarial assumptions are met, the contribution requirements would decrease in the next few years.
 - The unrecognized investment gains represent about 5% of the market value of assets. Unless offset by future investments losses or other unfavorable experience, the recognition of the \$221.3 million in past market gains is expected to have an impact on the Association's future funded ratio and the aggregate employer contributions. This potential impact may be illustrated as follows:
 - If the deferred gains were recognized immediately in the actuarial value of assets, the funded percentage would increase from 78.4% to 83.0%.

SECTION 1: Valuation Summary for the Fresno County Employees' Retirement Association

- If the deferred gains were recognized immediately in the actuarial value of assets, the aggregate employer contribution rate would decrease from 52.6% of payroll to 47.4% of payroll.

Reference: Pg. 72

- In preparing the breakdown of the total costs of the General Tier 1 plan into the cost to provide the “Regular” and the “Settlement” benefits, we have followed the Association’s practice of allocating the cost to provide a benefit under Section 31676.12 as the cost for the “Regular” benefit and allocating the difference between this “Regular” benefit cost and the cost to provide a benefit under Section 31676.14 plus Section 31627 as the “Settlement” benefit. In particular, this means that the difference between benefits under Sections 31676.12 and 31676.14 is considered “Settlement” and so under the Settlement Agreement could be funded out of future undistributed earnings. Based on prior discussions with Counsel, the Agreement might not be clear as to what should be considered the “Settlement” benefit. This means we will require guidance from the Board if and when the Board considers the use of any future undistributed earnings to pay the cost of the “Settlement” benefit.
- The actuarial valuation report as of June 30, 2014 is based on financial information as of that date. Changes in the value of assets subsequent to that date are not reflected. Declines in asset values will increase the actuarial cost of the plan, while increases will decrease the actuarial cost of the plan.
- The Governmental Accounting Standards Board (GASB) approved two new Statements affecting the reporting of pension liabilities for accounting purposes. Statement 67 replaces Statement 25 and is for plan reporting, effective with the fiscal year ending June 30, 2014. Statement 68 replaces Statement 27 and is for employer reporting, effective with the fiscal year ending June 30, 2015. The information needed to comply with Statement 67 is provided in our report dated December 10, 2014 and the information needed to comply with Statement 68 will be provided in a separate report.

Impact of Future Experience on Contribution Rates

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

- 1) differences between actual experience and anticipated experience;
- 2) changes in actuarial assumptions or methods;
- 3) changes in statutory provisions; and
- 4) difference between the contribution rates determined by the valuation and those adopted by the Board.

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Summary of Key Valuation Results

	June 30, 2014		June 30, 2013	
Employer Contribution Rates:		Estimated		Estimated
	Total Rate	Annual Amount ⁽¹⁾	Total Rate	Annual Amount ⁽¹⁾
General Tier 1	50.80%	\$114,752,000	51.07%	\$115,362,000
General Tier 2	48.09%	\$5,467,000	48.27%	\$5,488,000
General Tier 3	47.38%	\$17,262,000	47.33%	\$17,245,000
General Tier 4	38.15%	\$4,051,000	38.17%	\$4,053,000
General Tier 5	37.36%	\$10,591,000	37.48%	\$10,625,000
Safety Tier 1	74.56%	\$36,795,000	74.79%	\$36,909,000
Safety Tier 2	74.20%	\$3,100,000	74.26%	\$3,103,000
Safety Tier 4	59.37%	\$1,924,000	59.02%	\$1,913,000
Safety Tier 5	57.87%	\$2,513,000	57.41%	\$2,492,000
All categories combined	52.56%	\$196,455,000	52.76%	\$197,190,000
Average Member Contribution Rates:		Estimated		Estimated
	Total Rate	Annual Amount ⁽¹⁾	Total Rate	Annual Amount ⁽¹⁾
General Tier 1	9.73%	\$21,979,000	9.61%	\$21,708,000
General Tier 2	6.98%	\$794,000	6.87%	\$781,000
General Tier 3	7.74%	\$2,820,000	7.56%	\$2,754,000
General Tier 4	6.68%	\$709,000	6.51%	\$691,000
General Tier 5	7.02%	\$1,990,000	6.96%	\$1,973,000
Safety Tier 1	12.52%	\$6,179,000	12.36%	\$6,100,000
Safety Tier 2	11.06%	\$462,000	10.93%	\$457,000
Safety Tier 4	9.83%	\$319,000	9.60%	\$311,000
Safety Tier 5	12.51%	\$543,000	11.96%	\$519,000
All categories combined	9.58%	\$35,795,000	9.44%	\$35,294,000
Funded Status:				
Actuarial accrued liability ⁽²⁾	\$4,876,754,000		\$4,694,780,000	
Valuation value of assets (VVA) ⁽³⁾	\$3,824,221,000		\$3,518,982,000	
Market value of assets (MVA) ⁽³⁾	\$4,045,489,000		\$3,479,066,000	
Funded percentage on a VVA basis	78.4%		75.0%	
Funded percentage on a MVA basis	83.0%		74.1%	
Unfunded actuarial accrued liability on a VVA basis	\$1,052,533,000		\$1,175,798,000	
Unfunded actuarial accrued liability on a MVA basis	\$831,265,000		\$1,215,714,000	
Key Economic Assumptions:				
Interest rate	7.25%		7.25%	
Inflation rate	3.25%		3.25%	
Across-the-board salary increase	0.50%		0.50%	

⁽¹⁾ Based on June 30, 2014 projected annual compensation.

⁽²⁾ Excludes liabilities for non-vested supplemental benefits.

⁽³⁾ Excludes non-valuation reserves: contingency reserve, supplemental COLA and retiree health benefit reserve (BOR).

SECTION 1: Valuation Summary for the Fresno County Employees' Retirement Association

Summary of Key Valuation Demographic and Financial Data

	June 30, 2014	June 30, 2013	Percentage Change
Active Members:			
Number of members	6,968	6,866	1.5%
Average age	43.6	44.0	N/A
Average service	11.0	11.2	N/A
Projected total compensation	\$373,773,832	\$370,078,800	1.0%
Average projected compensation	\$53,641	\$53,900	-0.5%
Retired Member and Beneficiaries:			
Number of members:			
Service retired	5,429	5,209	4.2%
Disability retired	344	334	3.0%
Beneficiaries	797	820	-2.8%
Total	6,570	6,363	3.3%
Average age	68.8	68.6	N/A
Average monthly benefit ⁽¹⁾	\$2,767	\$2,695	2.7%
Vested Terminated Members:			
Number of vested terminated members ⁽²⁾	1,380	1,295	6.6%
Average age	49.0	49.0	N/A
Summary of Financial Data:			
Market value of assets ⁽³⁾	\$4,050,128,933	\$3,499,451,731	15.7%
Return on market value of assets	16.63%	11.95%	N/A
Actuarial value of assets ⁽³⁾	\$3,828,861,827	\$3,539,367,350	8.2%
Return on actuarial value of assets	9.03%	6.91%	N/A
Valuation value of assets	\$3,824,221,492	\$3,518,982,097	8.7%
Return on valuation value of assets	8.98%	6.96%	N/A

⁽¹⁾ Benefits include regular and settlement benefits but exclude non-vested supplemental benefits.

⁽²⁾ Includes members who left their contributions on deposit even though they have less than five years of service.

⁽³⁾ Includes non-valuation reserves: supplemental COLA and retiree health benefit reserve (BOR).

SECTION 2: Valuation Results for the Fresno County Employees' Retirement Association

A. MEMBER DATA

The actuarial valuation and review considers the number and demographic characteristics of covered members, including active members, vested terminated members, retired members and beneficiaries.

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

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

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

CHART 1

Member Population: 2005 – 2014

Year Ended June 30	Active Members	Vested Terminated Members*	Retired Members and Beneficiaries	Ratio of Non-Actives to Actives
2005	7,644	1,326	4,418	0.75
2006	7,686	1,333	4,579	0.77
2007	7,802	1,393	4,831	0.80
2008	7,740	1,541	5,046	0.85
2009	7,407	1,460	5,322	0.92
2010	6,946	1,452	5,636	1.02
2011	6,763	1,414	5,887	1.08
2012	6,677	1,375	6,235	1.14
2013	6,866	1,295	6,363	1.12
2014	6,968	1,380	6,570	1.14

* Includes terminated members due a refund of member contributions

SECTION 2: Valuation Results for the Fresno County Employees' Retirement Association

Active Members

Plan costs are affected by the age, years of service and compensation of active members. In this year's valuation, there were 6,968 active members with an average age of 43.6 years, average years of service of 11.0 and average compensation of \$53,641. The 6,866 active members in the prior valuation had an average age of 44.0 years, average years of service of 11.2 and average compensation of \$53,900.

Inactive Members

In this year's valuation, there were 1,380 members with a vested right to a deferred or immediate vested benefit or entitled to a return of their member contributions versus 1,295 in the prior valuation

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

CHART 2

Distribution of Active Members by Age as of June 30, 2014

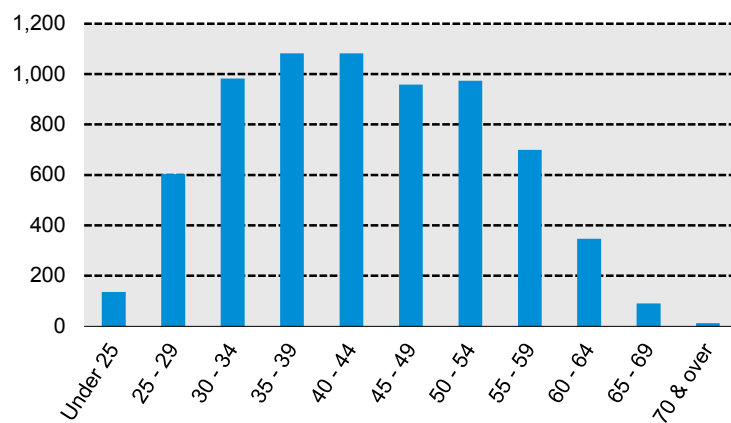
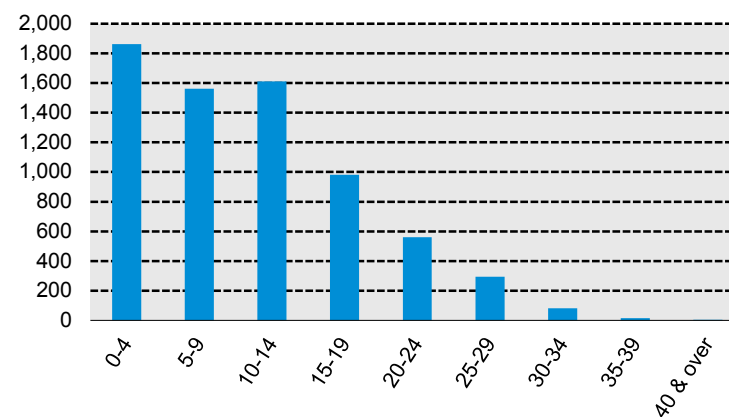


CHART 3

Distribution of Active Members by Years of Service as of June 30, 2014



SECTION 2: Valuation Results for the Fresno County Employees' Retirement Association

Retired Members and Beneficiaries

As of June 30, 2014, 5,773 retired members and 797 beneficiaries were receiving total monthly benefits of \$18,179,190. For comparison, in the previous valuation, there were 5,543 retired members and 820 beneficiaries receiving monthly benefits of \$17,145,421. These monthly benefits exclude non-vested supplemental benefits (i.e., discretionary supplemental COLA and additional health benefits).

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

CHART 4

Distribution of Retired Members (Excl. Beneficiaries) by Type and by Monthly Amount as of June 30, 2014

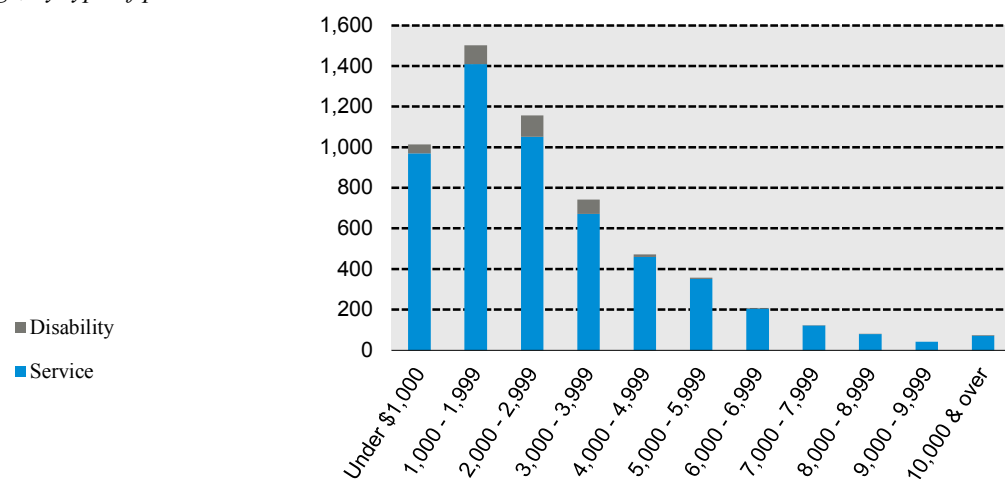
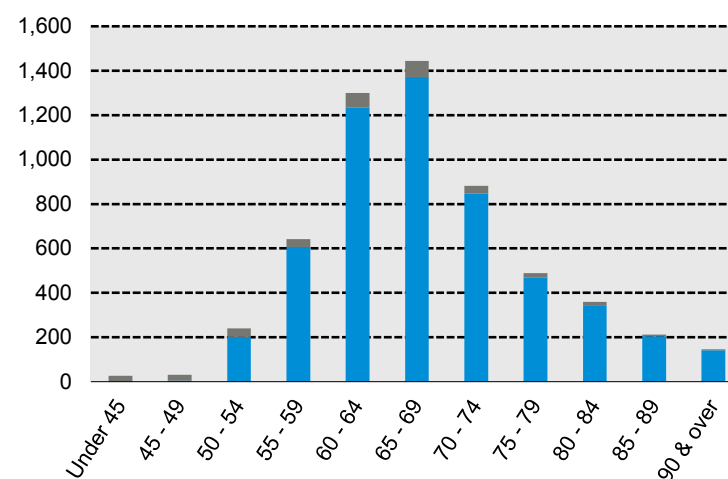


CHART 5

Distribution of Retired Members (Excl. Beneficiaries) by Type and by Age as of June 30, 2014



SECTION 2: Valuation Results for the Fresno County Employees' Retirement Association

B. FINANCIAL INFORMATION

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

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

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

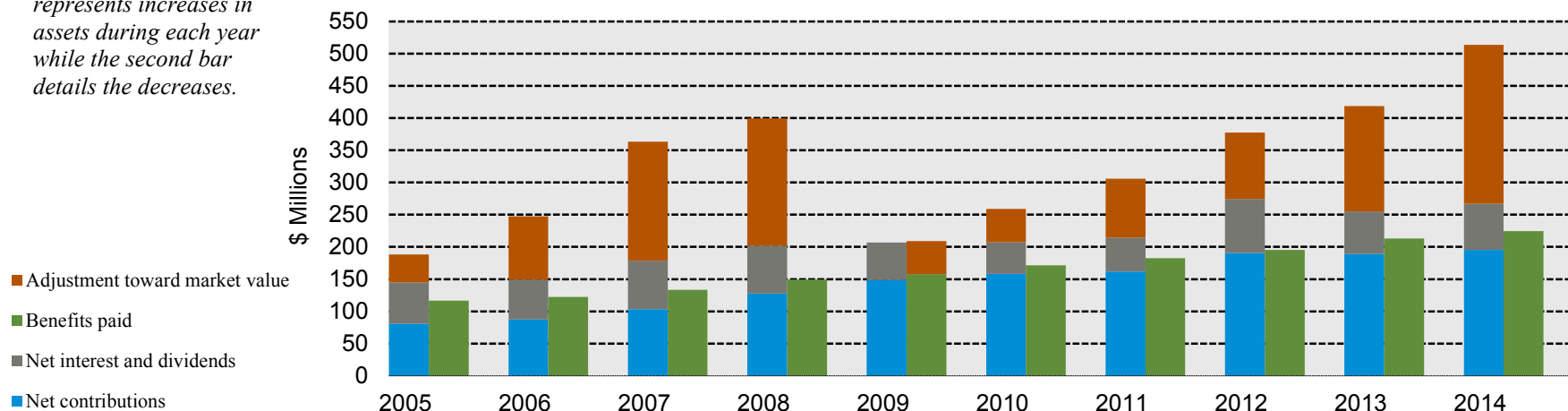
The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value of assets.

The determination of the Actuarial Value of Assets is provided on the following page.

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

CHART 6

Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended June 30, 2005 through 2014



SECTION 2: Valuation Results for the Fresno County Employees' Retirement Association

CHART 7

Determination of Actuarial Value of Assets for Year Ended June 30, 2014

Six Month Period		Total Actual	Expected Market	Investment	Deferred	Deferred
From	To	Market Return (net)	Return (net) ⁽¹⁾	Gain (Loss)	Factor	Return
Combined deferred gain through 6/30/2011 ⁽²⁾				\$15,635,252	0.333	\$5,211,751
7/1/2011	12/31/2011	\$(175,101,712)	\$122,793,608	(297,895,320)	0.4	(119,158,128)
1/1/2012	6/30/2012	161,262,327	115,914,939	45,347,388	0.5	22,673,694
7/1/2012	12/31/2012	240,685,052	121,699,116	118,985,935	0.6	71,391,561
1/1/2013	6/30/2013	134,122,546	130,563,210	3,559,336	0.7	2,491,535
7/1/2013	12/31/2013	395,606,395	135,374,319	260,232,075	0.8	208,185,660
1/1/2014	6/30/2014	184,000,262	150,143,559	33,856,703	0.9	30,471,033
1.	Total Deferred Return ⁽³⁾					\$221,267,106
2.	Net Market Value					4,050,128,933
3.	Actuarial Value of Assets (Item 2 – Item 1)					3,828,861,827
4.	Actuarial Value (before corridor) as a percentage of Market Value					94.5%
5.	Actuarial Value of Assets – Corridor Limits:					
a.	Lower Limit – 70% of Net Market Value					\$2,835,090,253
b.	Upper Limit – 130% of Net Market Value					5,265,167,613
6.	Actuarial Value of Assets (within corridor)					3,828,861,827
7.	Non-valuation reserves and designations:					
a.	Reserve for Interest Fluctuations (Contingency Reserve), Limited to No Less Than \$0					3,259,532
b.	Board Contingency Reserve/Undistributed Earnings (“Available Earnings”)					0
c.	Supplemental COLA					1,380,803
d.	Retiree Health Benefit (BOR), Limited to No Less Than \$0					0
e.	Subtotal					\$4,640,335
8.	Valuation Value of Assets (Item 6 – Item 7e)					\$3,824,221,492

⁽¹⁾ The expected market return has been calculated by FCERA using an investment return assumption consistent with that used in the applicable actuarial valuation to set the employer and employee contribution rates for that period.

⁽²⁾ Based on action taken by the Board in 2012, the net deferred gain of \$15,635,252 through June 30, 2011 as of that valuation has been recognized in nine level amounts, with three six-month periods of recognition remaining after the June 30, 2014 valuation.

⁽³⁾ The amounts of deferred return that will be recognized in each subsequent valuation are as follows:

6/30/2015	\$36,291,724
6/30/2016	\$34,554,474
6/30/2017	\$87,861,549
6/30/2018	\$59,173,689
6/30/2019	\$3,385,670

Note: Results may not total properly due to rounding.

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

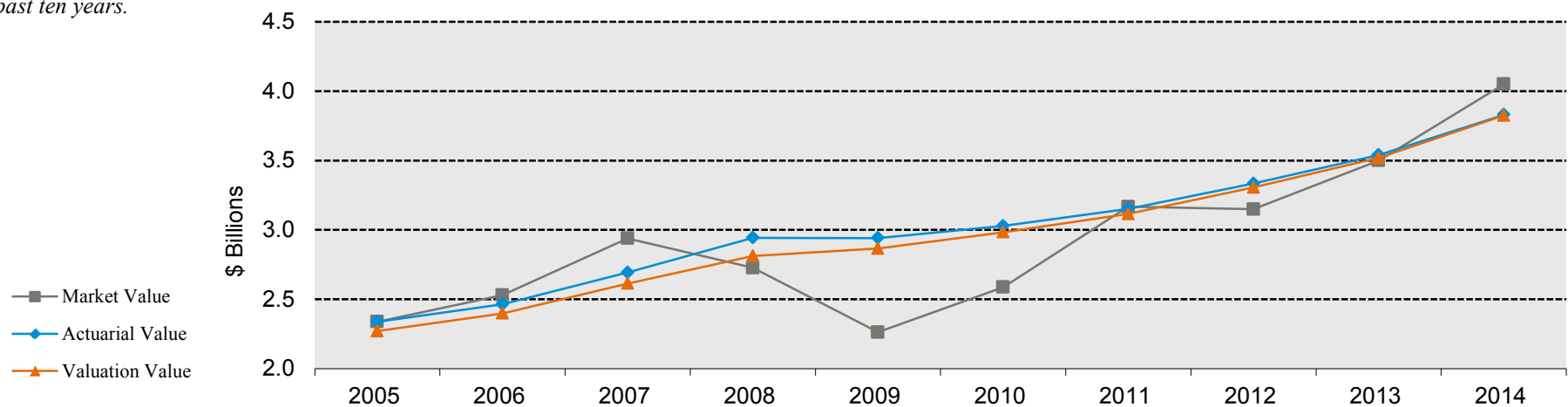
SECTION 2: Valuation Results for the Fresno County Employees' Retirement Association

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

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

CHART 8

Market Value, Actuarial Value and Valuation Value of Assets as of June 30, 2005 – 2014



SECTION 2: Valuation Results for the Fresno County Employees' Retirement Association

C. ACTUARIAL EXPERIENCE

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

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

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

The total experience gain was \$120.3 million, a gain of \$60.8 million from investments and a gain of \$59.5 million from all other sources. The net experience variation from individual sources other than investments was 1.2% of the actuarial accrued liability. A discussion of the major components of the actuarial experience is on the following pages.

CHART 9

Actuarial Experience for Year Ended June 30, 2014

1. Net gain/(loss) from investments ⁽¹⁾	\$60,779,000
2. Net gain/(loss) from other experience ⁽²⁾	<u>59,525,000</u>
3. Net experience gain/(loss): (1) + (2)	\$120,304,000

⁽¹⁾ Details in Chart 10.

⁽²⁾ See Section 3, Items (6b) through (6f) in Exhibit H.

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

SECTION 2: Valuation Results for the Fresno County Employees' Retirement Association

Investment Rate of Return

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on FCERA's investment policy. For valuation purposes, the assumed rate of return was 7.25% (based on the June 30, 2013 valuation). The actual rate of return on a valuation basis for the 2013/2014 plan year was 8.98%.

Since the actual return for the year was greater than the assumed return, FCERA experienced an actuarial gain during the year ended June 30, 2014 with regard to its investments.

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

CHART 10

Investment Experience for Year Ended June 30, 2014 – Valuation, Actuarial and Market Value of Assets

	Valuation Value	Actuarial Value	Market Value
1. Actual return	\$315,164,400	\$318,423,932	\$579,606,657
2. Average value of assets	3,508,768,188	3,524,902,623	3,484,987,004
3. Actual rate of return: (1) ÷ (2)	8.98%	9.03%	16.63%
4. Assumed rate of return	7.25%	7.25%	7.25%
5. Expected return: (2) x (4)	254,385,694	255,555,440	252,661,558
6. Actuarial gain/(loss): (1) – (5)	<u>\$60,778,706</u>	<u>\$62,868,492</u>	<u>\$326,945,099</u>

SECTION 2: Valuation Results for the Fresno County Employees' Retirement Association

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

CHART 11

Investment Return – Valuation Value, Actuarial Value and Market Value: 2005 – 2014

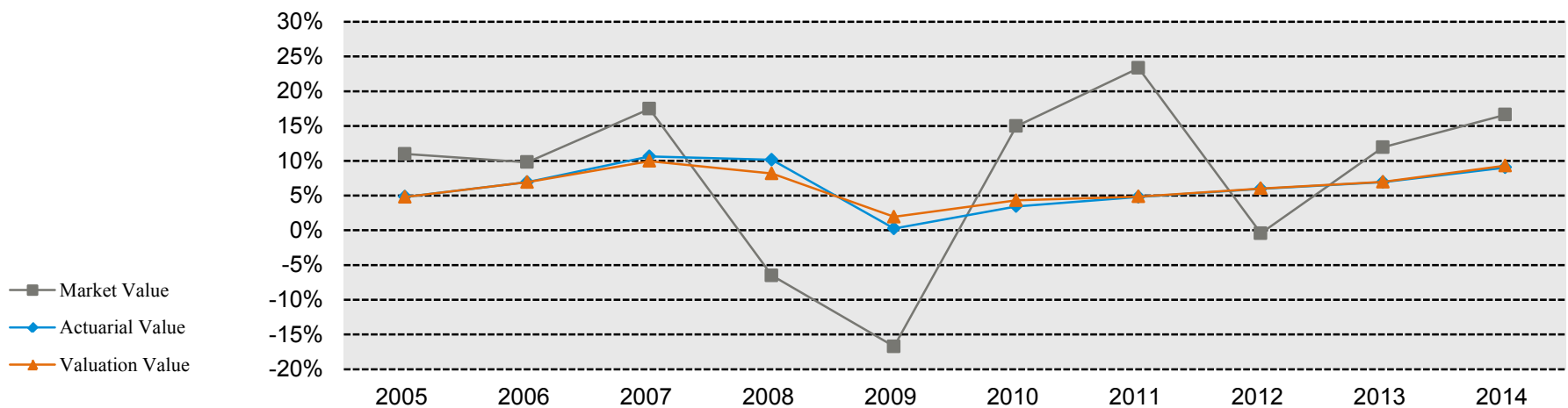
Year Ended June 30	Valuation Value Investment Return		Actuarial Value Investment Return		Market Value Investment Return	
	Amount	Percent	Amount	Percent	Amount	Percent
2005	\$104,235,839	4.79%	\$107,850,996	4.80%	\$232,922,758	10.97%
2006	155,867,582	6.91%	160,474,530	6.92%	226,902,394	9.78%
2007	237,613,613	9.95%	259,818,285	10.61%	439,056,103	17.46%
2008	212,997,330	8.17%	271,876,171	10.14%	(190,479,656)	(6.51%)
2009	54,209,327	1.93%	6,924,705	0.24%	(455,354,552)	(16.73%)
2010	123,408,438	4.31%	100,789,315	3.44%	337,869,234	14.98%
2011	144,184,273	4.84%	144,184,272	4.78%	601,313,325	23.34%
2012	187,137,138	6.01%	187,138,723	5.94%	(13,839,384)	(0.44%)
2013	229,380,360	6.96%	229,380,360	6.91%	374,807,596	11.95%
2014	315,164,400	8.98%	318,423,932	9.03%	579,606,657	16.63%
Five-Year Average Return		6.21%		6.00%		13.01%
Ten-Year Average Return		6.26%		6.24%		7.46%

SECTION 2: Valuation Results for the Fresno County Employees' Retirement Association

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

CHART 12

Market, Actuarial and Valuation Rates of Return for Years Ended June 30, 2005 – 2014



SECTION 2: Valuation Results for the Fresno County Employees' Retirement Association

Other Experience

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

- actual turnover among the participants,
- retirement experience (earlier or later than expected),
- mortality (more or fewer deaths than expected),

- the number of disability retirements, and
- salary increases different than assumed.

The net gain from this other experience for the year ended June 30, 2014 amounted to \$59.5 million which is 1.2% of the actuarial accrued liability. See Exhibit H for a detailed development of the Unfunded Actuarial Accrued Liability.

SECTION 2: Valuation Results for the Fresno County Employees' Retirement Association

D. EMPLOYER AND MEMBER CONTRIBUTIONS

Employer contributions consist of two components:

Normal Cost

The annual contribution rate that, if paid annually from a member's first year of membership through the year of retirement, would accumulate to the amount necessary to fully fund the member's retirement-related benefits. Accumulation includes annual crediting of interest at the assumed investment earning rate. The contribution rate is expressed as a level percentage of the member's compensation.

Contribution to the Unfunded

Actuarial Accrued Liability (UAAL)

The annual contribution rate that, if paid annually over the UAAL amortization period, would accumulate to the amount necessary to fully fund the UAAL. Accumulation includes annual crediting of interest at the assumed investment earning rate. The contribution (or rate credit in the case of a negative UAAL) is calculated to remain as a level percentage of future active member payroll (including payroll for new members as they enter the Association) assuming a constant number of active members. In order to remain as a level percentage of payroll, amortization payments (credits) are scheduled to increase at the annual inflation rate of 3.75% (i.e., 3.25% inflation plus 0.50% real across-the-board salary increase). The UAAL established as of the June 30, 2003 valuation is being amortized over a declining period with 19 years remaining as of June 30, 2014. Any new UAAL established on each subsequent valuation after June 30, 2003 as a result of actuarial gains or losses, changes in actuarial assumptions or plan amendments⁽¹⁾ are amortized over separate 15-year declining periods.

The recommended employer contributions are provided on Chart 13.

⁽¹⁾ Prior to the Board's most recent review of actuarial funding policy in April 2011, a 30-year amortization period was used for plan amendments.

SECTION 2: Valuation Results for the Fresno County Employees' Retirement Association

Member Contributions

Non-CalPEPRA Members

Articles 6 and 6.8 of the 1937 Act define the methodology to be used in the calculation of member basic contribution rates for General members and Safety members, respectively.

The basic contribution rate for the Regular benefit is determined so that the accumulation of a member's basic contributions made in a given year until a certain age will be sufficient to fund an annuity at that age that is equal to:

- 1/200 of One-Year Average Final Compensation at age 60 for General Tier 1
- 1/240 of One-Year Average Final Compensation at age 60 for General Tier 2
- 1/200 of Three-Year Average Final Compensation at age 55 for General Tier 3
- 1/120 of Three-Year Average Final Compensation at age 60 for General Tier 4
- 1/200 of One-Year Average Final Compensation at age 50 for Safety Tiers 1 and 2
- 1/100 of Three-Year Average Final Compensation at age 50 for Safety Tier 4

In addition, as a result of the Settlement Agreement, General Tier 1 and Safety Tier 1 members are required to make additional basic contributions in order to receive the Settlement Benefit. The total basic Regular plus Settlement rate is:

- 1/160 of One-Year Average Final Compensation at age 55 for General Tier 1
- 1/160 of One-Year Average Final Compensation at age 50 for Safety Tier 1

It is assumed that contributions are made annually at the same rate, starting at entry age. In addition to their basic contributions, members in Tiers 1, 2 and 3 pay one-half of the total normal cost necessary to fund their cost-of-living benefits. There are no cost-of-living benefits provided in General and Safety Tiers 4. Accumulation includes semi-annual crediting of interest at the assumed investment earning rate.

CalPEPRA Members

Pursuant to Section 7522.30(a) of the Government Code, CalPEPRA members in General and Safety Tiers 5 are required to contribute at least 50% of the Normal Cost rate. In addition, there are certain additional requirements that would have to be met such as requiring the new employees to pay the contribution rate of "similarly situated employees", if it is greater. (reference: Section 7522.30(c)). We further understand

SECTION 2: Valuation Results for the Fresno County Employees' Retirement Association

that different rules may have to be applied for collectively bargained employees, non-represented, managerial or other supervisory employees. (reference: Section 7522.30(e)). In preparing the Normal Cost rates in this report, we have assumed that exactly 50% of the Normal Cost would be paid by the new members and we have taken into account in this valuation only the requirements of Section 7522.30(c), but not requirements of Section 7522.30(e).

The member contribution rates are provided in Appendix A.

Administrative Expense

The Board adopted an explicit administrative expense assumption of 1.10% of payroll as of June 30, 2014. This explicit administrative expense is allocated to both the employer and member based on the components of the total average contribution rate (before expenses) for the employer and member. This results in an administrative expense load shown in the following table:

Allocation of Administrative Expense Load of 1.10% of Payroll

<u>Component</u>	<u>% of Payroll</u>
Employer Regular Normal Cost Rate	0.17%
Employer UAAL Rate	0.76%
Member Regular Basic Rate	0.17%

This allocation is based on the following total average contribution rates before including administrative expenses:

	<u>Total Average Rate Before Administrative Expense</u>	<u>Weighting</u>	<u>Total Loading</u>
Employer Total	51.63%	84.6%	0.93%
Member	9.41%	<u>15.4%</u>	<u>0.17%</u>
		100.0%	1.10%

Note that the employer Normal Cost rate has been increased by the same percent of payroll as the member rate with the remaining employer loading allocated to the employer UAAL rate. The administrative expense load has been added to the Regular rates.

SECTION 2: Valuation Results for the Fresno County Employees' Retirement Association

CHART 13

Recommended Employer Contribution Rates (Dollar Amounts in Thousands)

	June 30, 2014*						June 30, 2013	
	REGULAR		SETTLEMENT		TOTAL		REGULAR & SETTLEMENT	
	Rate	Estimated Annual Amount**	Rate	Estimated Annual Amount**	Rate	Estimated Annual Amount**	Rate	Estimated Annual Amount**
General Tier 1 Members								
Normal Cost	15.45%	\$34,900	5.01%	\$11,317	20.46%	\$46,217	20.55%	\$46,420
UAAL	<u>25.29%</u>	<u>57,128</u>	<u>5.05%</u>	<u>11,407</u>	<u>30.34%</u>	<u>68,535</u>	<u>30.52%</u>	<u>68,942</u>
Total Contribution	40.74%	\$92,028	10.06%	\$22,724	50.80%	\$114,752	51.07%	\$115,362
General Tier 2 Members								
Normal Cost	17.51%	\$1,990	0.24%	\$28	17.75%	\$2,018	17.75%	\$2,018
UAAL	<u>25.29%</u>	<u>2,875</u>	<u>5.05%</u>	<u>574</u>	<u>30.34%</u>	<u>3,449</u>	<u>30.52%</u>	<u>3,470</u>
Total Contribution	42.80%	\$4,865	5.29%	\$602	48.09%	\$5,467	48.27%	\$5,488
General Tier 3 Members								
Normal Cost	16.74%	\$6,099	0.30%	\$109	17.04%	\$6,208	16.81%	\$6,125
UAAL	<u>25.29%</u>	<u>9,214</u>	<u>5.05%</u>	<u>1,840</u>	<u>30.34%</u>	<u>11,054</u>	<u>30.52%</u>	<u>11,120</u>
Total Contribution	42.03%	\$15,313	5.35%	\$1,949	47.38%	\$17,262	47.33%	\$17,245
General Tier 4 Members								
Normal Cost	7.81%	\$829	0.00%	\$0	7.81%	\$829	7.65%	\$812
UAAL	<u>25.29%</u>	<u>2,686</u>	<u>5.05%</u>	<u>536</u>	<u>30.34%</u>	<u>3,222</u>	<u>30.52%</u>	<u>3,241</u>
Total Contribution	33.10%	\$3,515	5.05%	\$536	38.15%	\$4,051	38.17%	\$4,053
General Tier 5 Members								
Normal Cost	7.02%	\$1,990	0.00%	\$0	7.02%	\$1,990	6.96%	\$1,973
UAAL	<u>25.29%</u>	<u>7,169</u>	<u>5.05%</u>	<u>1,432</u>	<u>30.34%</u>	<u>8,601</u>	<u>30.52%</u>	<u>8,652</u>
Total Contribution	32.31%	\$9,159	5.05%	\$1,432	37.36%	\$10,591	37.48%	\$10,625

* The Regular Normal Cost and UAAL rates shown for each cost group include an explicit administrative expense of 0.17% and 0.76% of payroll, respectively.

** Amounts are in thousands and are based on June 30, 2014 projected annual compensation shown on the following page.

SECTION 2: Valuation Results for the Fresno County Employees' Retirement Association

CHART 13 (continued)

Recommended Employer Contribution Rates (Dollar Amounts in Thousands)

	June 30, 2014*						June 30, 2013	
	REGULAR		SETTLEMENT		TOTAL		REGULAR & SETTLEMENT	
	Rate	Estimated Annual Amount**	Rate	Estimated Annual Amount**	Rate	Estimated Annual Amount**	Rate	Estimated Annual Amount**
Safety Tier 1 Members								
Normal Cost	23.45%	\$11,573	5.75%	\$2,837	29.20%	\$14,410	29.34%	\$14,479
UAAL	<u>39.77%</u>	<u>19,626</u>	<u>5.59%</u>	<u>2,759</u>	<u>45.36%</u>	<u>22,385</u>	<u>45.45%</u>	<u>22,430</u>
Total Contribution	63.22%	\$31,199	11.34%	\$5,596	74.56%	\$36,795	74.79%	\$36,909
Safety Tier 2 Members								
Normal Cost	28.64%	\$1,196	0.20%	\$9	28.84%	\$1,205	28.81%	\$1,204
UAAL	<u>39.77%</u>	<u>1,662</u>	<u>5.59%</u>	<u>233</u>	<u>45.36%</u>	<u>1,895</u>	<u>45.45%</u>	<u>1,899</u>
Total Contribution	68.41%	\$2,858	5.79%	\$242	74.20%	\$3,100	74.26%	\$3,103
Safety Tier 4 Members								
Normal Cost	13.85%	\$448	0.16%	\$6	14.01%	\$454	13.57%	\$440
UAAL	<u>39.77%</u>	<u>1,289</u>	<u>5.59%</u>	<u>181</u>	<u>45.36%</u>	<u>1,470</u>	<u>45.45%</u>	<u>1,473</u>
Total Contribution	53.62%	\$1,737	5.75%	\$187	59.37%	\$1,924	59.02%	\$1,913
Safety Tier 5 Members								
Normal Cost	12.51%	\$543	0.00%	\$0	12.51%	\$543	11.96%	\$519
UAAL	<u>39.77%</u>	<u>1,727</u>	<u>5.59%</u>	<u>243</u>	<u>45.36%</u>	<u>1,970</u>	<u>45.45%</u>	<u>1,973</u>
Total Contribution	52.28%	\$2,270	5.59%	\$243	57.87%	\$2,513	57.41%	\$2,492
All Categories Combined								
Normal Cost	15.94%	\$59,568	3.82%	\$14,306	19.76%	\$73,874	19.80%	\$73,990
UAAL	<u>27.66%</u>	<u>103,376</u>	<u>5.14%</u>	<u>19,205</u>	<u>32.80%</u>	<u>122,581</u>	<u>32.96%</u>	<u>123,200</u>
Total Contribution	43.60%	\$162,944	8.96%	\$33,511	52.56%	\$196,455	52.76%	\$197,190

* The Regular Normal Cost and UAAL rates shown for each cost group include an explicit administrative expense of 0.17% and 0.76% of payroll, respectively.

** Amounts are in thousands and are based on June 30, 2014 projected annual compensation (also in thousands):

General Tier 1	\$225,890
General Tier 2	11,369
General Tier 3	36,434
General Tier 4	10,620
General Tier 5	28,350
Safety Tier 1	49,350
Safety Tier 2	4,178
Safety Tier 4	3,241
Safety Tier 5	4,342
Total Compensation	<u>\$373,774</u>

SECTION 2: Valuation Results for the Fresno County Employees' Retirement Association

CHART 14

Breakdown of Employer Contribution Rate Into Basic and COLA

	General									
	June 30, 2014					June 30, 2013				
	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5
Normal Cost										
Regular - Basic	12.29%	14.37%	13.49%	7.64%	6.85%	12.47%	14.55%	13.45%	7.65%	6.96%
Regular - COLA	2.99%	2.97%	3.08%	0.00%	0.00%	3.02%	2.98%	3.06%	0.00%	0.00%
Section 6	4.64%	0.00%	0.00%	0.00%	0.00%	4.69%	0.00%	0.00%	0.00%	0.00%
Section 8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Section 9	0.37%	0.24%	0.30%	0.00%	0.00%	0.37%	0.22%	0.30%	0.00%	0.00%
Administrative Expense	0.17%	0.17%	0.17%	0.17%	0.17%	0.00%	0.00%	0.00%	0.00%	0.00%
UAAL										
Regular – Basic	15.69%	15.69%	15.69%	15.69%	15.69%	15.52%	15.52%	15.52%	15.52%	15.52%
Regular – COLA	8.84%	8.84%	8.84%	8.84%	8.84%	9.34%	9.34%	9.34%	9.34%	9.34%
Section 6	4.24%	4.24%	4.24%	4.24%	4.24%	4.57%	4.57%	4.57%	4.57%	4.57%
Section 8	0.09%	0.09%	0.09%	0.09%	0.09%	0.22%	0.22%	0.22%	0.22%	0.22%
Section 9	0.72%	0.72%	0.72%	0.72%	0.72%	0.87%	0.87%	0.87%	0.87%	0.87%
Administrative Expense	0.76%	0.76%	0.76%	0.76%	0.76%	0.00%	0.00%	0.00%	0.00%	0.00%

Note: Please refer to Section 4, Exhibit VI for definition of Regular and Settlement Sections 6, 8 and 9 benefits.

SECTION 2: Valuation Results for the Fresno County Employees' Retirement Association

CHART 14 (continued)

Breakdown of Employer Contribution Rate Into Basic and COLA

	Safety							
	June 30, 2014				June 30, 2013			
	Tier 1	Tier 2	Tier 4	Tier 5	Tier 1	Tier 2	Tier 4	Tier 5
Normal Cost								
Regular - Basic	18.50%	22.78%	13.68%	12.34%	18.68%	22.95%	13.41%	11.96%
Regular - COLA	4.78%	5.69%	0.00%	0.00%	4.83%	5.67%	0.00%	0.00%
Section 6	5.44%	0.00%	0.00%	0.00%	5.52%	0.00%	0.00%	0.00%
Section 8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Section 9	0.31%	0.20%	0.16%	0.00%	0.31%	0.19%	0.16%	0.00%
Administrative Expense	0.17%	0.17%	0.17%	0.17%	0.00%	0.00%	0.00%	0.00%
UAAL								
Regular – Basic	18.19%	18.19%	18.19%	18.19%	18.40%	18.40%	18.40%	18.40%
Regular – COLA	20.82%	20.82%	20.82%	20.82%	20.96%	20.96%	20.96%	20.96%
Section 6	4.78%	4.78%	4.78%	4.78%	5.00%	5.00%	5.00%	5.00%
Section 8	0.09%	0.09%	0.09%	0.09%	0.22%	0.22%	0.22%	0.22%
Section 9	0.72%	0.72%	0.72%	0.72%	0.87%	0.87%	0.87%	0.87%
Administrative Expense	0.76%	0.76%	0.76%	0.76%	0.00%	0.00%	0.00%	0.00%

Note: Please refer to Section 4, Exhibit VI for definition of Regular and Settlement Sections 6, 8 and 9 benefits.

SECTION 2: Valuation Results for the Fresno County Employees' Retirement Association

The employer contribution rates as of June 30, 2014 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

Reconciliation of Recommended Employer Contribution

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

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

CHART 15

Reconciliation of Recommended Employer Contribution from June 30, 2013 to June 30, 2014 (Dollars in Thousands)

	Contribution Rate	Estimated Amount ⁽¹⁾
Recommended Contribution Rate as of June 30, 2013	52.76%	\$197,190
Effect of actuarial experience during 2013/2014:		
1. Effect of investment gain on valuation value of assets	-1.41%	-\$5,270
2. Effect of one year delay in implementing employer and employee contribution rates calculated in June 30, 2013 valuation	1.35%	5,046
3. Effect of salary increases less than expected during 2013/2014	-0.78%	-2,915
4. Effect of increase in UAAL rate due to less than expected increase in total payroll	0.90%	3,364
5. Effect of COLA increases less than expected	-1.18%	-4,411
6. Effect of member reclassification made by the Association	1.03%	3,850
7. Effect of restatement of the balance in the Retiree Health Benefit Reserve (Section 9)	-0.24%	-897
8. Effect of explicit administrative expense load	0.93%	3,476
9. Effect of demographic changes (decrease in normal cost)	-0.21%	-785
10. Effect of other experience gains	<u>-0.59%</u>	<u>-2,193</u>
Subtotal	-0.20%	-\$735
Recommended Contribution Rate as of June 30, 2014	52.56%	\$196,455

⁽¹⁾ Based on June 30, 2014 projected annual compensation of \$373,774.

SECTION 2: Valuation Results for the Fresno County Employees' Retirement Association

The member contribution rates as of June 30, 2014 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

Reconciliation of Recommended Member Contribution Rate

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

CHART 16

Reconciliation of Recommended Member Contribution from June 30, 2013 to June 30, 2014 (Dollar Amounts in Thousands)

	Contribution Rate	Estimated Amount ⁽¹⁾
Average Contribution Rate as of June 30, 2013	9.44%	\$35,294
1. Explicit administrative expense load	0.17%	635
2. Effect of demographic changes (decrease in normal cost)	<u>-0.03%</u>	<u>-134</u>
Subtotal	0.14%	\$501
Average Contribution Rate as of June 30, 2014	9.58%	\$35,795

⁽¹⁾ Based on June 30, 2014 projected annual compensation of \$373,774.

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

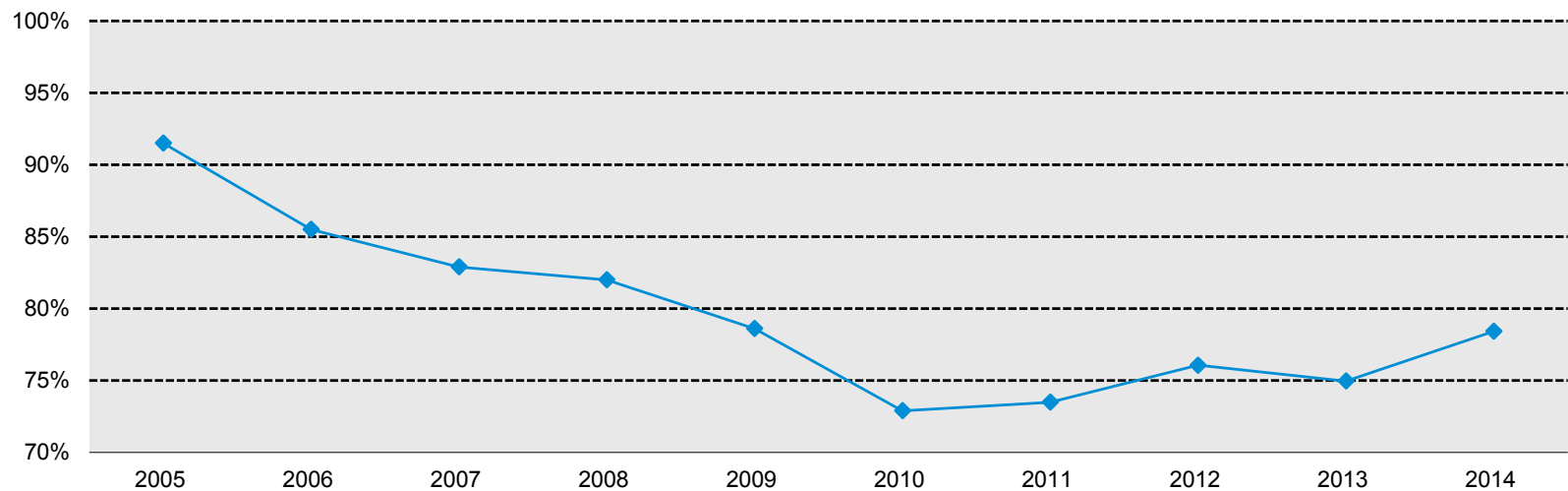
SECTION 2: Valuation Results for the Fresno County Employees' Retirement Association

E. FUNDED RATIO

A critical piece of information regarding the Plan's financial status is the funded ratio. This ratio compares the valuation value of assets to the actuarial accrued liabilities of the plan. High ratios indicate a well-funded plan that is well positioned to pay benefits when they are due. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other changes.

The chart below depicts a history of funded ratio for the Plan.

CHART 17
Funded Ratio



SECTION 2: Valuation Results for the Fresno County Employees' Retirement Association

F. VOLATILITY RATIOS

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

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

For FCERA, the current AVR is 10.8. This means that a 1% asset gain/(loss) (relative to the assumed investment return) translates to 10.8% of one-year's payroll. Since FCERA amortizes actuarial gains and losses over a period of 15 years as of June 30, 2014, there would be a 0.9% of payroll decrease/(increase) in the required contribution for each 1% asset gain/(loss).

The Liability Volatility Ratio (LVR), which is equal to the Actuarial Accrued Liability divided by payroll, provides

an indication of the longer-term potential for contribution volatility for any given level of investment volatility. This is because, over an extended period of time, the plan's assets should track the plan's liabilities. For example, if a plan is 50% funded on a market value basis, the liability volatility ratio would be double the asset volatility ratio and the plan sponsor should expect contribution volatility to increase over time as the plan becomes better funded. The LVR also indicates how volatile contributions will be in response to changes in the Actuarial Accrued Liability due to actual experience or to changes in actuarial assumptions.

For FCERA, the current LVR is 13.0. This is about 20% higher than the AVR. Therefore, we would expect that contribution volatility will increase over the long-term. These ratios are not only sensitive to changes in assets and liability but also to changes in payroll. A comparative schedule of assets, liabilities and payroll is provided in Section 4, Exhibit III.

CHART 18
Volatility Ratios for Years Ended June 30, 2009 – 2014

Year Ended June 30	Asset Volatility Ratio	Liability Volatility Ratio
2009	5.4	8.6
2010	6.3	10.0
2011	7.9	10.6
2012	8.6	11.9
2013	9.5	12.7
2014	10.8	13.0

This chart shows how the asset and liability volatility ratios have varied over time.

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EXHIBIT A

Table of Plan Coverage

i. General Tier 1

Category	Year Ended June 30		Change From Prior Year
	2014	2013	
Active members in valuation			
Number	4,006	4,329	-7.5%
Average age	47.4	46.9	N/A
Average service	14.8	14.1	N/A
Projected total compensation ⁽¹⁾	\$225,890,358	\$238,767,742	-5.4%
Projected average compensation ⁽¹⁾	\$56,388	\$55,155	2.2%
Member account balances	\$208,186,180	\$206,891,009	0.6%
Vested terminated members			
Number	1,211	1,157	4.7%
Average age	49.7	49.6	N/A
Retired members			
Number in pay status	4,853	4,666	4.0%
Average age	69.1	69.0	N/A
Average monthly benefit ⁽²⁾	\$2,747	\$2,695	1.9%
Disabled members			
Number in pay status	196	194	1.0%
Average age	66.6	66.1	N/A
Average monthly benefit ⁽²⁾	\$1,919	\$1,839	4.4%
Beneficiaries			
Number in pay status	658	676	-2.7%
Average age	72.9	72.4	N/A
Average monthly benefit ⁽²⁾	\$1,669	\$1,561	6.9%

⁽¹⁾ Projected compensation was calculated by increasing the annualized compensation by one-half of the inflation plus across-the-board salary increase plus merit.

⁽²⁾ Benefits include regular and settlement benefits but exclude non-vested supplemental benefits.

SECTION 3: Supplemental Information for the Fresno County Employees' Retirement Association

EXHIBIT A

Table of Plan Coverage

ii. General Tier 2

Category	Year Ended June 30		Change From Prior Year
	2014	2013	
Active members in valuation			
Number	177	200	-11.5%
Average age	42.9	42.1	N/A
Average service	5.1	4.2	N/A
Projected total compensation ⁽¹⁾	\$11,368,641	\$12,528,244	-9.3%
Projected average compensation ⁽¹⁾	\$64,230	\$62,641	2.5%
Member account balances	\$3,332,989	\$3,064,003	8.8%
Vested terminated members			
Number	14	10	40.0%
Average age	42.9	42.4	N/A
Retired members			
Number in pay status	8	5	60.0%
Average age	60.6	60.2	N/A
Average monthly benefit ⁽²⁾	\$2,712	\$2,173	24.8%
Disabled members			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit ⁽²⁾	N/A	N/A	N/A
Beneficiaries			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit ⁽²⁾	N/A	N/A	N/A

⁽¹⁾ Projected compensation was calculated by increasing the annualized compensation by one-half of the inflation plus across-the-board salary increase plus merit.

⁽²⁾ Benefits include regular and settlement benefits but exclude non-vested supplemental benefits.

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EXHIBIT A

Table of Plan Coverage

iii. General Tier 3

Category	Year Ended June 30		Change From Prior Year
	2014	2013	
Active members in valuation			
Number	855	921	-7.2%
Average age	39.4	38.4	N/A
Average service	5.2	4.2	N/A
Projected total compensation ⁽¹⁾	\$36,433,639	\$37,115,560	-1.8%
Projected average compensation ⁽¹⁾	\$42,612	\$40,299	5.7%
Member account balances	\$11,185,270	\$9,285,512	20.5%
Vested terminated members			
Number	23	10	130.0%
Average age	39.2	39.8	N/A
Retired members			
Number in pay status	4	2	100.0%
Average age	64.1	66.4	N/A
Average monthly benefit ⁽²⁾	\$1,511	\$1,879	-19.6%
Disabled members			
Number in pay status	1	0	N/A
Average age	59.7	N/A	N/A
Average monthly benefit ⁽²⁾	\$896	N/A	N/A
Beneficiaries			
Number in pay status	1	1	0.0%
Average age	64.5	63.5	N/A
Average monthly benefit ⁽²⁾	\$1,259	\$1,241	1.5%

⁽¹⁾ Projected compensation was calculated by increasing the annualized compensation by one-half of the inflation plus across-the-board salary increase plus merit.

⁽²⁾ Benefits include regular and settlement benefits but exclude non-vested supplemental benefits.

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EXHIBIT A

Table of Plan Coverage

iv. General Tier 4

Category	Year Ended June 30		Change From Prior Year
	2014	2013	
Active members in valuation			
Number	256	303	-15.5%
Average age	37.1	36.1	N/A
Average service	1.8	0.8	N/A
Projected total compensation ⁽¹⁾	\$10,619,621	\$11,772,905	-9.8%
Projected average compensation ⁽¹⁾	\$41,483	\$38,854	6.8%
Member account balances	\$995,342	\$547,549	81.8%
Vested terminated members			
Number	1	0	N/A
Average age	36.7	N/A	N/A
Retired members			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit ⁽²⁾	N/A	N/A	N/A
Disabled members			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit ⁽²⁾	N/A	N/A	N/A
Beneficiaries			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit ⁽²⁾	N/A	N/A	N/A

⁽¹⁾ Projected compensation was calculated by increasing the annualized compensation by one-half of the inflation plus across-the-board salary increase plus merit.

⁽²⁾ Benefits include regular benefits but exclude non-vested supplemental benefits.

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EXHIBIT A

Table of Plan Coverage

v. General Tier 5

Category	Year Ended June 30		Change From Prior Year
	2014	2013	
Active members in valuation			
Number	836	267	213.1%
Average age	34.6	34.4	N/A
Average service	0.7	0.3	N/A
Projected total compensation ⁽¹⁾	\$28,350,434	\$9,171,114	209.1%
Projected average compensation ⁽¹⁾	\$33,912	\$34,349	-1.3%
Member account balances	\$1,178,158	\$147,616	698.1%
Vested terminated members			
Number	0	0	N/A
Average age	N/A	N/A	N/A
Retired members			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit ⁽²⁾	N/A	N/A	N/A
Disabled members			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit ⁽²⁾	N/A	N/A	N/A
Beneficiaries			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit ⁽²⁾	N/A	N/A	N/A

⁽¹⁾ Projected compensation was calculated by increasing the annualized compensation by one-half of the inflation plus across-the-board salary increase plus merit.

⁽²⁾ Benefits include regular benefits but exclude non-vested supplemental benefits.

SECTION 3: Supplemental Information for the Fresno County Employees' Retirement Association

EXHIBIT A

Table of Plan Coverage

vi. Safety Tier 1

Category	Year Ended June 30		Change From Prior Year
	2014	2013	
Active members in valuation			
Number	623	667	-6.6%
Average age	44.0	43.6	N/A
Average service	16.0	15.4	N/A
Projected total compensation ⁽¹⁾	\$49,350,014	\$51,377,811	-3.9%
Projected average compensation ⁽¹⁾	\$79,214	\$77,028	2.8%
Member account balances	\$55,129,962	\$54,038,622	2.0%
Vested terminated members			
Number	123	114	7.9%
Average age	45.4	44.7	N/A
Retired members			
Number in pay status	564	536	5.2%
Average age	65.7	65.4	N/A
Average monthly benefit ⁽²⁾	\$4,558	\$4,485	1.6%
Disabled members			
Number in pay status	147	140	5.0%
Average age	58.0	57.6	N/A
Average monthly benefit ⁽²⁾	\$3,313	\$3,239	2.3%
Beneficiaries			
Number in pay status	138	143	-3.5%
Average age	67.5	66	N/A
Average monthly benefit ⁽²⁾	\$2,075	\$2,006	3.4%

⁽¹⁾ Projected compensation was calculated by increasing the annualized compensation by one-half of the inflation plus across-the-board salary increase plus merit.

⁽²⁾ Benefits include regular and settlement benefits but exclude non-vested supplemental benefits.

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EXHIBIT A

Table of Plan Coverage

vii. Safety Tier 2

Category	Year Ended June 30		Change From Prior Year
	2014	2013	
Active members in valuation			
Number	62	69	-10.1%
Average age	34.4	33.5	N/A
Average service	4.8	3.8	N/A
Projected total compensation ⁽¹⁾	\$4,178,316	\$4,287,331	-2.5%
Projected average compensation ⁽¹⁾	\$67,392	\$62,135	8.5%
Member account balances	\$1,653,153	\$1,420,362	16.4%
Vested terminated members			
Number	8	4	100.0%
Average age	35.2	31.7	N/A
Retired members			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit ⁽²⁾	N/A	N/A	N/A
Disabled members			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit ⁽²⁾	N/A	N/A	N/A
Beneficiaries			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit ⁽²⁾	N/A	N/A	N/A

⁽¹⁾ Projected compensation was calculated by increasing the annualized compensation by one-half of the inflation plus across-the-board salary increase plus merit.

⁽²⁾ Benefits include regular and settlement benefits but exclude non-vested supplemental benefits.

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EXHIBIT A

Table of Plan Coverage

viii. Safety Tier 4

Category	Year Ended June 30		Change From Prior Year
	2014	2013	
Active members in valuation			
Number	58	68	-14.7%
Average age	31.1	29.8	N/A
Average service	1.8	0.8	N/A
Projected total compensation ⁽¹⁾	\$3,240,811	\$3,270,451	-0.9%
Projected average compensation ⁽¹⁾	\$55,876	\$48,095	16.2%
Member account balances	\$417,213	\$205,153	103.4%
Vested terminated members			
Number	0	0	N/A
Average age	N/A	N/A	N/A
Retired members			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit ⁽²⁾	N/A	N/A	N/A
Disabled members			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit ⁽²⁾	N/A	N/A	N/A
Beneficiaries			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit ⁽²⁾	N/A	N/A	N/A

⁽¹⁾ Projected compensation was calculated by increasing the annualized compensation by one-half of the inflation plus across-the-board salary increase plus merit.

⁽²⁾ Benefits include regular and settlement benefits but exclude non-vested supplemental benefits.

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EXHIBIT A

Table of Plan Coverage

ix. Safety Tier 5

Category	Year Ended June 30		Change From Prior Year
	2014	2013	
Active members in valuation			
Number	95	42	126.2%
Average age	31.3	29.9	N/A
Average service	0.9	0.3	N/A
Projected total compensation ⁽¹⁾	\$4,341,999	\$1,787,641	142.9%
Projected average compensation ⁽¹⁾	\$45,705	\$42,563	7.4%
Member account balances	\$369,242	\$50,500	631.2%
Vested terminated members			
Number	0	0	N/A
Average age	N/A	N/A	N/A
Retired members			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit ⁽²⁾	N/A	N/A	N/A
Disabled members			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit ⁽²⁾	N/A	N/A	N/A
Beneficiaries			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit ⁽²⁾	N/A	N/A	N/A

⁽¹⁾ Projected compensation was calculated by increasing the annualized compensation by one-half of the inflation plus across-the-board salary increase plus merit.

⁽²⁾ Benefits include regular and settlement benefits but exclude non-vested supplemental benefits.

SECTION 3: Supplemental Information for the Fresno County Employees' Retirement Association

EXHIBIT B

**Members in Active Service and Projected Average Compensation
By Age, Years of Service as of June 30, 2014**

i. General Tier 1

Age	Years of Service									
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	1	1	--	--	--	--	--	--	--	--
	\$27,774	\$27,774	--	--	--	--	--	--	--	--
25 - 29	56	17	37	2	--	--	--	--	--	--
	40,307	33,060	\$43,348	\$45,634	--	--	--	--	--	--
30 - 34	335	27	225	82	1	--	--	--	--	--
	50,204	40,818	51,277	50,294	\$54,592	--	--	--	--	--
35 - 39	605	17	217	313	58	--	--	--	--	--
	54,645	55,300	54,101	54,970	54,736	--	--	--	--	--
40 - 44	697	16	137	302	205	37	--	--	--	--
	55,954	45,434	52,306	54,522	61,273	\$56,231	--	--	--	--
45 - 49	659	7	96	220	184	116	36	--	--	--
	58,351	37,078	56,407	54,655	61,953	63,122	\$56,476	--	--	--
50 - 54	709	5	97	181	155	154	95	20	2	--
	58,589	58,153	54,558	54,873	58,114	64,245	62,363	\$53,030	\$69,072	--
55 - 59	576	3	68	145	131	98	80	43	8	--
	57,817	35,544	54,071	52,737	57,893	58,462	67,003	64,751	51,778	--
60 - 64	287	5	42	87	59	48	35	8	2	1
	58,326	56,679	52,610	57,183	56,880	60,425	68,707	50,750	62,232	\$79,986
65 - 69	72	--	11	22	22	5	7	2	1	2
	57,773	--	55,353	50,030	64,542	50,717	68,928	46,144	81,822	60,009
70 & over	9	--	2	4	1	--	1	--	1	--
	59,143	--	61,842	69,454	35,721	--	30,530	--	64,538	--
Total	4,006	98	932	1,358	816	458	254	73	14	3
	\$56,388	\$43,870	\$52,976	\$54,376	\$59,550	\$61,528	\$63,920	\$59,496	\$58,799	\$66,668

SECTION 3: Supplemental Information for the Fresno County Employees' Retirement Association

EXHIBIT B

**Members in Active Service and Projected Average Compensation
By Age, Years of Service as of June 30, 2014**

ii. General Tier 2

Age	Years of Service									
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
25 - 29	20	20	--	--	--	--	--	--	--	--
	\$53,522	\$53,522	--	--	--	--	--	--	--	--
30 - 34	35	22	13	--	--	--	--	--	--	--
	53,688	48,150	\$63,061	--	--	--	--	--	--	--
35 - 39	36	12	24	--	--	--	--	--	--	--
	67,280	68,787	66,526	--	--	--	--	--	--	--
40 - 44	17	6	9	1	1	--	--	--	--	--
	62,229	53,604	64,013	\$88,690	\$71,468	--	--	--	--	--
45 - 49	18	8	10	--	--	--	--	--	--	--
	70,295	75,824	65,871	--	--	--	--	--	--	--
50 - 54	22	9	13	--	--	--	--	--	--	--
	73,060	81,127	67,475	--	--	--	--	--	--	--
55 - 59	11	5	5	1	--	--	--	--	--	--
	78,006	85,490	78,073	40,246	--	--	--	--	--	--
60 - 64	10	3	7	--	--	--	--	--	--	--
	71,339	69,480	72,136	--	--	--	--	--	--	--
65 - 69	6	1	4	1	--	--	--	--	--	--
	51,044	53,367	49,649	54,300	--	--	--	--	--	--
70 & over	2	--	2	--	--	--	--	--	--	--
	94,405	--	94,405	--	--	--	--	--	--	--
Total	177	86	87	3	1	--	--	--	--	--
	\$64,230	\$61,660	\$66,795	\$61,078	\$71,468	--	--	--	--	--

SECTION 3: Supplemental Information for the Fresno County Employees' Retirement Association

EXHIBIT B

**Members in Active Service and Projected Average Compensation
By Age, Years of Service as of June 30, 2014**

iii. General Tier 3

Age	Years of Service									
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	11	11	--	--	--	--	--	--	--	--
	\$28,763	\$28,763	--	--	--	--	--	--	--	--
25 - 29	129	93	36	--	--	--	--	--	--	--
	39,300	38,863	\$40,431	--	--	--	--	--	--	--
30 - 34	238	112	126	--	--	--	--	--	--	--
	42,616	38,972	45,856	--	--	--	--	--	--	--
35 - 39	150	56	87	5	2	--	--	--	--	--
	45,088	39,574	48,874	\$39,682	\$48,300	--	--	--	--	--
40 - 44	94	37	49	7	1	--	--	--	--	--
	44,905	38,529	48,577	52,509	47,645	--	--	--	--	--
45 - 49	77	32	37	5	3	--	--	--	--	--
	41,991	38,534	43,713	39,863	61,168	--	--	--	--	--
50 - 54	71	31	31	7	2	--	--	--	--	--
	41,630	39,571	42,470	42,996	55,735	--	--	--	--	--
55 - 59	48	16	26	6	--	--	--	--	--	--
	43,212	41,483	45,974	35,850	--	--	--	--	--	--
60 - 64	25	8	15	1	--	1	--	--	--	--
	43,188	36,867	48,534	26,138	--	\$30,610	--	--	--	--
65 - 69	11	1	10	--	--	--	--	--	--	--
	50,355	35,488	51,841	--	--	--	--	--	--	--
70 & over	1	1	--	--	--	--	--	--	--	--
	23,886	23,886	--	--	--	--	--	--	--	--
Total	855	398	417	31	8	1	--	--	--	--
	\$42,612	\$38,731	\$46,142	\$42,177	\$54,902	\$30,610	--	--	--	--

SECTION 3: Supplemental Information for the Fresno County Employees' Retirement Association

EXHIBIT B

**Members in Active Service and Projected Average Compensation
By Age, Years of Service as of June 30, 2014**

iv. General Tier 4

Age	Total	Years of Service								
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	12	12	--	--	--	--	--	--	--	--
	\$36,122	\$36,122	--	--	--	--	--	--	--	--
25 - 29	71	71	--	--	--	--	--	--	--	--
	41,708	41,708	--	--	--	--	--	--	--	--
30 - 34	55	54	1	--	--	--	--	--	--	--
	44,314	44,119	\$54,851	--	--	--	--	--	--	--
35 - 39	34	34	--	--	--	--	--	--	--	--
	42,102	42,102	--	--	--	--	--	--	--	--
40 - 44	28	28	--	--	--	--	--	--	--	--
	39,207	39,207	--	--	--	--	--	--	--	--
45 - 49	21	21	--	--	--	--	--	--	--	--
	40,548	40,548	--	--	--	--	--	--	--	--
50 - 54	14	14	--	--	--	--	--	--	--	--
	36,724	36,724	--	--	--	--	--	--	--	--
55 - 59	14	14	--	--	--	--	--	--	--	--
	35,463	35,463	--	--	--	--	--	--	--	--
60 - 64	7	7	--	--	--	--	--	--	--	--
	56,604	56,604	--	--	--	--	--	--	--	--
65 - 69	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
70 & over	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
Total	256	255	1	--	--	--	--	--	--	--
	\$41,483	\$41,430	\$54,851	--	--	--	--	--	--	--

SECTION 3: Supplemental Information for the Fresno County Employees' Retirement Association

EXHIBIT B

**Members in Active Service and Projected Average Compensation
By Age, Years of Service as of June 30, 2014**

v. General Tier 5

Age	Total	Years of Service								
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	92	92	--	--	--	--	--	--	--	--
	\$29,271	\$29,271	--	--	--	--	--	--	--	--
25 - 29	248	248	--	--	--	--	--	--	--	--
	33,613	33,613	--	--	--	--	--	--	--	--
30 - 34	190	190	--	--	--	--	--	--	--	--
	34,486	34,486	--	--	--	--	--	--	--	--
35 - 39	115	115	--	--	--	--	--	--	--	--
	34,185	34,185	--	--	--	--	--	--	--	--
40 - 44	61	61	--	--	--	--	--	--	--	--
	31,638	31,638	--	--	--	--	--	--	--	--
45 - 49	42	42	--	--	--	--	--	--	--	--
	34,920	34,920	--	--	--	--	--	--	--	--
50 - 54	48	47	1	--	--	--	--	--	--	--
	39,533	39,297	\$50,626	--	--	--	--	--	--	--
55 - 59	30	30	--	--	--	--	--	--	--	--
	38,938	38,938	--	--	--	--	--	--	--	--
60 - 64	8	8	--	--	--	--	--	--	--	--
	39,829	39,829	--	--	--	--	--	--	--	--
65 - 69	2	2	--	--	--	--	--	--	--	--
	28,493	28,493	--	--	--	--	--	--	--	--
70 & over	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
Total	836	835	1	--	--	--	--	--	--	--
	\$33,912	\$33,892	\$50,626	--	--	--	--	--	--	--

SECTION 3: Supplemental Information for the Fresno County Employees' Retirement Association

EXHIBIT B

**Members in Active Service and Projected Average Compensation
By Age, Years of Service as of June 30, 2014**

vi. Safety Tier 1

Age	Years of Service									
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
25 - 29	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
30 - 34	64	1	41	22	--	--	--	--	--	--
	\$72,127	\$51,077	\$70,642	\$75,851	--	--	--	--	--	--
35 - 39	123	2	29	75	17	--	--	--	--	--
	78,625	57,385	75,344	79,578	\$82,511	--	--	--	--	--
40 - 44	168	1	18	72	68	9	--	--	--	--
	78,728	73,481	71,550	77,590	80,413	\$90,026	--	--	--	--
45 - 49	137	1	3	26	46	50	11	--	--	--
	80,616	54,794	70,391	76,171	77,531	87,234	\$79,079	--	--	--
50 - 54	105	--	2	14	20	35	28	6	--	--
	81,845	--	76,143	78,156	77,838	80,676	85,732	\$94,391	--	--
55 - 59	18	--	--	6	3	6	1	2	--	--
	82,308	--	--	72,172	80,129	76,858	84,803	131,084	--	--
60 - 64	8	--	--	3	2	1	1	--	--	1
	89,648	--	--	79,734	82,457	71,398	117,061	--	--	\$124,607
65 - 69	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
70 & over	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
Total	623	5	93	218	156	101	41	8	--	1
	\$79,214	\$58,824	\$72,395	\$77,846	\$79,482	\$84,437	\$84,688	\$103,564	--	\$124,607

SECTION 3: Supplemental Information for the Fresno County Employees' Retirement Association

EXHIBIT B

**Members in Active Service and Projected Average Compensation
By Age, Years of Service as of June 30, 2014**

vii. Safety Tier 2

Age	Total	Years of Service								
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	2	2	--	--	--	--	--	--	--	--
	\$53,815	\$53,815	--	--	--	--	--	--	--	--
25 - 29	16	13	3	--	--	--	--	--	--	--
	61,133	56,322	\$81,981	--	--	--	--	--	--	--
30 - 34	24	6	18	--	--	--	--	--	--	--
	72,464	56,050	77,935	--	--	--	--	--	--	--
35 - 39	10	8	2	--	--	--	--	--	--	--
	60,934	56,620	78,188	--	--	--	--	--	--	--
40 - 44	3	2	1	--	--	--	--	--	--	--
	63,717	57,247	76,657	--	--	--	--	--	--	--
45 - 49	3	1	2	--	--	--	--	--	--	--
	78,468	80,879	77,262	--	--	--	--	--	--	--
50 - 54	2	--	2	--	--	--	--	--	--	--
	76,200	--	76,200	--	--	--	--	--	--	--
55 - 59	1	--	1	--	--	--	--	--	--	--
	82,572	--	82,572	--	--	--	--	--	--	--
60 - 64	1	--	1	--	--	--	--	--	--	--
	82,572	--	82,572	--	--	--	--	--	--	--
65 - 69	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
70 & over	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
Total	62	32	30	--	--	--	--	--	--	--
	\$67,392	\$57,014	\$78,462	--	--	--	--	--	--	--

SECTION 3: Supplemental Information for the Fresno County Employees' Retirement Association

EXHIBIT B

**Members in Active Service and Projected Average Compensation
By Age, Years of Service as of June 30, 2014**

viii. Safety Tier 4

Age	Years of Service									
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	6	6	--	--	--	--	--	--	--	--
	\$52,162	\$52,162	--	--	--	--	--	--	--	--
25 - 29	26	26	--	--	--	--	--	--	--	--
	53,514	53,514	--	--	--	--	--	--	--	--
30 - 34	14	14	--	--	--	--	--	--	--	--
	55,722	55,722	--	--	--	--	--	--	--	--
35 - 39	4	4	--	--	--	--	--	--	--	--
	54,706	54,706	--	--	--	--	--	--	--	--
40 - 44	5	5	--	--	--	--	--	--	--	--
	67,557	67,557	--	--	--	--	--	--	--	--
45 - 49	2	2	--	--	--	--	--	--	--	--
	60,593	60,593	--	--	--	--	--	--	--	--
50 - 54	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
55 - 59	1	1	--	--	--	--	--	--	--	--
	78,565	78,565	--	--	--	--	--	--	--	--
60 - 64	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
65 - 69	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
70 & over	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
Total	58	58	--	--	--	--	--	--	--	--
	\$55,876	\$55,876	--	--	--	--	--	--	--	--

SECTION 3: Supplemental Information for the Fresno County Employees' Retirement Association

EXHIBIT B

**Members in Active Service and Projected Average Compensation
By Age, Years of Service as of June 30, 2014**

ix. Safety Tier 5

Age	Years of Service									
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	12	12	--	--	--	--	--	--	--	--
	\$44,418	\$44,418	--	--	--	--	--	--	--	--
25 - 29	38	38	--	--	--	--	--	--	--	--
	43,833	43,833	--	--	--	--	--	--	--	--
30 - 34	27	27	--	--	--	--	--	--	--	--
	46,432	46,432	--	--	--	--	--	--	--	--
35 - 39	5	5	--	--	--	--	--	--	--	--
	50,982	50,982	--	--	--	--	--	--	--	--
40 - 44	9	9	--	--	--	--	--	--	--	--
	47,906	47,906	--	--	--	--	--	--	--	--
45 - 49	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
50 - 54	2	2	--	--	--	--	--	--	--	--
	53,770	53,770	--	--	--	--	--	--	--	--
55 - 59	1	1	--	--	--	--	--	--	--	--
	52,190	52,190	--	--	--	--	--	--	--	--
60 - 64	1	1	--	--	--	--	--	--	--	--
	43,863	43,863	--	--	--	--	--	--	--	--
65 - 69	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
70 & over	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
Total	95	95	--	--	--	--	--	--	--	--
	\$45,705	\$45,705	--	--	--	--	--	--	--	--

SECTION 3: Supplemental Information for the Fresno County Employees' Retirement Association

EXHIBIT C

Reconciliation of Member Data – June 30, 2013 to June 30, 2014

	Active Members	Vested Terminated Members	Pensioners	Disableds	Beneficiaries	Total
Number as of June 30, 2013	6,866	1,295	5,209	334	820	14,524
New members	694	0	0	0	0	694
Terminations – with vested rights	-122	122	0	0	0	0
Contributions refunds	-225	-22	0	0	0	-247
Retirements	-234	-63	297	0	0	0
New disabilities	-11	-2	-4	17	0	0
Return to work	9	-9	0	0	0	0
Died with or without beneficiary	-6	-5	-127	-8	6*	-140
Data reclassification**	0	72	58	0	0	130
Data adjustments	-3	-8	-4	1	-29	-43
Number as of June 30, 2014	6,968	1,380	5,429	344	797	14,918

* This is the net increase in the number of beneficiaries after subtracting the number of beneficiaries who died during the year.

** The Association made a reclassification to pensioners and deferred vested terminated members who were previously reported as terminated members with refund in the June 30, 2013 valuation.

SECTION 3: Supplemental Information for the Fresno County Employees' Retirement Association

EXHIBIT D

Summary Statement of Income and Expenses on an Actuarial Value Basis

	Year Ended June 30,	
	2014	2013
Contribution income:		
Employer contributions	\$165,309,213	\$158,572,420
Employee contributions	<u>30,153,934</u>	<u>30,515,683</u>
Contribution income	\$195,463,147	\$189,088,102
Investment income:		
Interest, dividends and other income	\$91,038,716	\$84,767,171
Adjustment toward market value	246,721,523	163,442,741
Less investment and administrative fees	<u>-19,336,307</u>	<u>-18,829,551</u>
Net investment income	<u>318,423,932</u>	<u>229,380,361</u>
Total income available for benefits	\$513,887,079	\$418,468,463
Less benefit payments:		
Service retirement	-\$208,165,612	-\$196,409,132
Death payments	-1,414,569	-1,215,086
Supplemental cost of living	-750,469	-889,297
Members refunds	-2,103,211	-2,210,889
Health benefit subsidies	<u>-11,958,741</u>	<u>-12,232,226</u>
Benefit payments	-\$224,392,602	-\$212,956,631
Change in reserve for future benefits	\$289,494,477	\$205,511,832

Results may not total properly due to rounding.

SECTION 3: Supplemental Information for the Fresno County Employees' Retirement Association

EXHIBIT E

Summary Statement of Assets

	Year Ended June 30,	
	2014	2013
Cash equivalents	\$98,697,164	\$147,426,913
Accounts receivable:		
Investment trades	\$88,150,717	\$152,441,618
Interest and dividends	11,694,497	9,742,570
Contributions and others	12,217,713	11,033,756
Securities lending	<u>110,013</u>	<u>156,584</u>
Total accounts receivable	112,172,941	173,374,528
Investments:		
Equities	\$1,581,316,456	\$1,853,833,483
Fixed income	1,671,655,791	883,387,662
Real estate	64,381,320	68,555,179
Securities lending collateral	339,375,854	333,988,314
Capital assets	7,032,472	5,035,431
Others	<u>646,826,641</u>	<u>632,416,955</u>
Total investments at market value	<u>4,310,588,535</u>	<u>3,777,217,023</u>
Total assets	\$4,521,458,640	\$4,098,018,464
Less accounts payable:		
Investment trades	-\$128,637,930	-\$261,483,887
Cash collateral payable for securities lending	-339,375,854	-333,988,314
Securities lending bank and broker fees	-26,962	-38,542
Others	<u>-3,288,960</u>	<u>-3,055,990</u>
Total accounts payable	-\$471,329,707	-\$598,566,733
Net assets at market value	<u>\$4,050,128,933</u>	<u>\$3,499,451,731</u>
Net assets at actuarial value	<u>\$3,828,861,827</u>	<u>\$3,539,367,350</u>
Net assets at valuation value	<u>\$3,824,221,492</u>	<u>\$3,518,982,097</u>

Results may not total properly due to rounding.

EXHIBIT F

Actuarial Balance Sheet

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

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

Actuarial Balance Sheet (Dollar Amounts in Thousands)

		<u>Settlement Benefits</u>			
<u>Assets</u>	<u>Regular</u>	<u>Section 6*</u>	<u>Section 8*</u>	<u>Section 9*</u>	<u>Total</u>
1. Total valuation assets	\$3,003,891	\$705,881	\$85,934	\$28,515	\$3,824,221
2. Present value of future contributions by members	\$230,676	\$52,615	\$0	\$0	\$283,291
3. Present value of future employer contributions for:					
a. entry age normal cost	\$454,602	\$88,450	\$0	\$7,300	\$550,352
b unfunded actuarial accrued liability	\$810,407	\$200,428	\$4,692	\$37,006	\$1,052,533
4. Total current and future assets	\$4,499,576	\$1,047,374	\$90,626	\$72,821	\$5,710,397
<u>Liabilities</u>					
5. Present value of benefits already granted	\$2,277,917	\$489,079	\$90,626	\$44,294	\$2,901,916
6. Present value of benefits to be granted - deferred members	\$175,904	\$61,619	\$0	\$2,975	\$240,498
- active members	\$2,045,755	\$496,676	\$0	\$25,552	\$2,567,983
7. Total liabilities	\$4,499,576	\$1,047,374	\$90,626	\$72,821	\$5,710,397

* See page 72 for a description of these benefits.

SECTION 3: Supplemental Information for the Fresno County Employees' Retirement Association

EXHIBIT G

Summary of Reported Asset Information as of June 30, 2014

	Reserves
Used in Development of Valuation Value of Assets	
<i>Regular Valuation Reserves</i>	
Members' Accumulated Contributions	\$363,971,832
Current Service Reserve	886,653,347
Annuity Pension Reserve	135,903,487
Current Service Pension Reserve	1,135,831,975
Cost of Living Reserve	950,227,605
Survivors' Death Benefit Reserve	729,351
Subtotal	\$3,473,317,597
<i>Settlement Reserves (Section 6)</i>	
Supplemental Annuity Reserve	\$548,315,584
Members' Accumulated Contributions	48,236,855
Current Service Reserve	195,172,842
Annuity Pension Reserve	19,021,025
Subtotal	\$810,746,306
<i>Supplemental Benefit Reserve (Section 8)</i>	\$105,577,607
<i>Retiree Health Benefit Reserve (Section 9)</i>	\$38,565,697
<i>Contra Tracking Account</i>	\$(603,985,716)
Total	\$3,824,221,492
Not Used in Development of Valuation Value of Assets	
<i>Supplemental COLA</i>	\$1,380,803
<i>Retiree Health Benefit Reserve (BOR)</i>	0*
<i>Contingency Reserve</i>	3,259,532
<i>Board Contingency Reserve/Undistributed Earnings ("Available Earnings")</i>	0
<i>Market Stabilization Reserve</i>	221,267,106
Total	\$225,907,441
Grand Total	\$4,050,128,933

Note: Results may not total properly due to rounding.

** The balance in this reserve was equal to -\$777,081 before it was limited to no less than \$0. This reduced the balance in the Current Service Pension Reserve by \$777,081.*

SECTION 3: Supplemental Information for the Fresno County Employees' Retirement Association

EXHIBIT H

Development of Unfunded Actuarial Accrued Liability as of June 30, 2014

	(Dollar amounts in Thousands)
1 Unfunded actuarial accrued liability at beginning of year	\$1,175,798
2 Total Normal Cost payable at middle of year	110,342
3 Actual employer and member contributions	-195,463
4 Interest (full year on (1) plus half year on (2) + (3))	<u>82,160</u>
5 Expected unfunded actuarial accrued liability at end of year ⁽¹⁾	\$1,172,837
6 Actuarial (gain)/loss due to all changes:	
<u>Experience (gain)/loss</u>	
a. Gain from investment return	-\$60,779
b. Gain from lower than expected salary increases	-33,580
c. Gain from lower than expected COLA increases	-50,981
d. Loss from member reclassification made by the Association	44,514
e. Gain from restatement of the balance in the Retiree Health Benefit Reserve (Section 9)	-10,503
f. Other experience gains	<u>-8,975</u>
g. Subtotal	-\$120,304
7 Actual unfunded actuarial accrued liability at end of year (5) + (6g)	\$1,052,533

⁽¹⁾ Includes a contribution loss of about \$54.3 million due to the one-year lag in implementation of the contribution rates determined in the June 30, 2013 valuation and the payment of the UAAL contributions based on lower than expected payroll.

SECTION 3: Supplemental Information for the Fresno County Employees' Retirement Association

EXHIBIT I

Section 415 Limitations

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

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

In particular, Section 415(b) of the IRC limits the maximum annual benefit payable at the Normal Retirement Age to a dollar indexed for inflation. That limit is \$210,000 for 2014 and 2015. Normal Retirement Age for these purposes is age 62. These are the limits in simplified terms. They must generally be adjusted based on each participant's circumstances, for such things as age at retirement, form of benefits chosen and after tax contributions.

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

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

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

SECTION 3: Supplemental Information for the Fresno County Employees' Retirement Association

EXHIBIT J

Definitions of Pension Terms

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

**Assumptions or Actuarial
Assumptions:**

The estimates on which the cost of the Plan is calculated including:

- (a) Investment return — the rate of investment yield that the Plan will earn over the long-term future;
- (b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;
- (c) Retirement rates — the rate or probability of retirement at a given age; and
- (d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

Normal Cost:

The amount of contributions required to fund the level cost allocated to the current year of service.

**Actuarial Accrued Liability
For Actives:**

The equivalent of the accumulated normal costs allocated to the years before the valuation date.

**Actuarial Accrued Liability
For Pensioners:**

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

**Unfunded (Overfunded) Actuarial
Accrued Liability:**

The extent to which the actuarial accrued liability of the Plan exceeds (or is exceeded by) the assets of the Plan. There are many approaches to paying off the unfunded or overfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.

SECTION 3: Supplemental Information for the Fresno County Employees' Retirement Association

**Amortization of the Unfunded
(Overfunded) Actuarial
Accrued Liability:**

Payments made over a period of years equal in value to the Plan's unfunded or overfunded actuarial accrued liability.

Investment Return:

The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the gains and losses on the market value of assets to avoid significant swings in the value of assets from one year to the next.

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

EXHIBIT I

Summary of Actuarial Valuation Results

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

1. Retired members as of the valuation date (including 797 beneficiaries in pay status)	6,570
2. Members inactive during year ended June 30, 2014 with vested rights	1,380
3. Members active during the year ended June 30, 2014	6,968

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

1. Normal cost		\$109,669
2. Present value of future benefits		5,710,397
3. Present value of future normal costs		833,643
4. Actuarial accrued liability*		4,876,754
Retired members and beneficiaries	\$2,901,916	
Inactive members with vested rights	240,498	
Active members	1,734,340	
5. Valuation value of assets* (\$4,050,129 at market value as reported by FCERA)		3,824,221
6. Unfunded actuarial accrued liability		\$1,052,533

* Excludes non-valuation reserves and designations.

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

EXHIBIT I (continued)

Summary of Actuarial Valuation Results

The determination of the recommended average employer contribution is as follows
(amounts in 000s):

	Dollar Amount	% of Payroll
1. Total normal cost	\$109,669	29.34%
2. Expected employee contributions	<u>-35,795</u>	<u>-9.58%</u>
3. Employer normal cost: (1) + (2)	\$73,874	19.76%
4. Amortization of unfunded actuarial accrued liability	<u>122,581</u>	<u>32.80%</u>
5. Total recommended average employer contribution: (3) + (4)	\$196,455	52.56%
8. Projected compensation	\$373,774	

Note: Both Total normal cost and Total UAAL rates include an explicit administrative expense load.

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

EXHIBIT II

Schedule of Employer Contributions (Dollar Amounts in Millions)

Plan Year Ended June 30	Annual Required Contributions	Actual Contributions	Percentage Contributed
2005 ⁽¹⁾	\$56	\$56	100.0%
2006 ⁽¹⁾	57	57	100.0%
2007	70	70	100.0%
2008	97	97	100.0%
2009	114	114	100.0%
2010	126	126	100.0%
2011	130	130	100.0%
2012	158	158	100.0%
2013	159	159	100.0%
2014	165	165	100.0%

⁽¹⁾ Source: June 30, 2006 CAFR.

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

EXHIBIT III

Schedule of Funding Progress (Dollar Amounts in Thousands)

Actuarial Valuation Date	Valuation Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded/ (Overfunded) AAL (UAAL) (a) – (b)	Funded Ratio (%) (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll (%) [(a) – (b)] / (c)
6/30/2005 ⁽¹⁾	\$2,044,389	\$2,233,594	\$189,205	91.5	\$351,049	53.9
6/30/2006	2,398,454	2,803,990	405,536	85.5	376,270	107.8
6/30/2007	2,610,269 ⁽²⁾	3,149,570	539,301	82.9	404,277	133.4
6/30/2008	2,812,423	3,429,990	617,567	82.0	424,083	145.6
6/30/2009	2,864,956	3,644,743	779,787	78.6	422,519	184.6
6/30/2010	2,983,044	4,092,464	1,109,420	72.9	408,861	271.3
6/30/2011	3,114,483	4,237,961	1,123,478	73.5	398,976	281.6
6/30/2012	3,305,045	4,345,402	1,040,357	76.1	365,596	284.6
6/30/2013	3,518,982	4,694,780	1,175,798	75.0	370,079	317.7
6/30/2014	3,824,221	4,876,754	1,052,533	78.4	373,774	281.6

⁽¹⁾ Before the Board amended its funding policy to eliminate the requirement that one-half of the COLA UAAL be paid by members. After the amendment, the AAL was \$2,545,620, the VVA was \$2,270,141, the funded percentage was 89.2% and the UAAL was \$275,479.

⁽²⁾ After decreasing assets by \$3,169 for a net overpayment of member contributions discounted to June 30, 2007.

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

EXHIBIT IV

Supplementary Information Required by GASB

Valuation date	June 30, 2014
Actuarial cost method	Entry Age Cost Method
Amortization method	Level percent of payroll for total unfunded liability
Remaining amortization period	19 years (declining) for UAAL established as of June 30, 2003 plus 15 years (declining) for UAAL due to actuarial gains or losses, changes in actuarial assumptions or plan amendments* established on each subsequent valuation.
Asset valuation method	The actuarial value of assets is determined by recognizing any difference between the actual and the expected market return over 10 six-month interest crediting periods. The actuarial value of assets is further adjusted, if necessary, to be within 30% of the market value of assets. The valuation value of assets is the actuarial value of assets reduced by the value of the non-valuation reserves. Deferred gains and losses as of June 30, 2011 have been combined and will be recognized in equal amounts over a period of four and a half years from that date.
Actuarial assumptions:	
Investment rate of return	7.25%
Inflation rate	3.25%
Real across-the-board salary increase	0.50%
Administrative Expense	1.10% of payroll allocated to both the employer and member based on the components of the total contribution rate (before expenses) for the employer and member.
Projected salary increases**	General: 4.75% to 10.75% and Safety: 5.25% to 10.75%
Cost of living adjustments	3.00% of retirement income for General Tiers 1, 2 and 3, and Safety Tiers 1 and 2 0.00% for General Tiers 4 and 5 and Safety Tiers 4 and 5
Plan membership:	
Retired members and beneficiaries receiving benefits	6,570
Terminated members entitled to, but not yet receiving benefits	1,380
Active members	<u>6,968</u>
Total	14,918

* Prior to the Board's most recent review of actuarial funding policy in April 2011, a 30-year amortization period was used for plan amendments.

** Includes inflation at 3.25% plus real across-the-board salary increase of 0.50% plus merit and longevity increases. See Exhibit V for these increases.

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

EXHIBIT V

Actuarial Assumptions and Actuarial Cost Method

Post – Retirement Mortality Rates:

Healthy:

For General Members and all Beneficiaries: RP-2000 Combined Healthy Mortality Table projected with Scale AA to 2015, set back one year for males and set back two years for females.

For Safety Members: RP-2000 Combined Healthy Mortality Table projected with Scale AA to 2015, set back one year.

Disabled:

For General Members: RP-2000 Combined Healthy Mortality Table projected with Scale AA to 2015, set forward six years for males and set forward five years for females.

For Safety Members: RP-2000 Combined Healthy Mortality Table projected with Scale AA to 2015, set forward one year.

The mortality tables shown above were determined so as to reasonably reflect future mortality improvement, based on a review of mortality experience in the June 30, 2012 actuarial experience study.

*Employee Contribution Rates
and Optional Benefits:*

For General Members and Beneficiaries: RP-2000 Combined Healthy Mortality Table projected with Scale AA to 2015, set back one year for males and set back two years for females weighted 35% male and 65% female for members and weighted 65% male and 35% female for beneficiaries.

For Safety Members: RP-2000 Combined Healthy Mortality Table projected with Scale AA to 2015, set back one year weighted 80% male and 20% female.

For Safety Beneficiaries: RP-2000 Combined Healthy Mortality Table projected with Scale AA to 2015, set back one year for males and set back two years for females weighted 20% male and 80% female.

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Termination Rates Before Retirement:

Age	Rate (%) Mortality			
	General ⁽¹⁾		Safety ⁽¹⁾	
	Male	Female	Male	Female
25	0.03	0.02	0.03	0.02
30	0.04	0.02	0.04	0.02
35	0.07	0.03	0.07	0.04
40	0.09	0.05	0.09	0.05
45	0.12	0.07	0.12	0.08
50	0.15	0.11	0.15	0.12
55	0.24	0.18	0.24	0.21
60	0.47	0.36	0.47	0.41
65	0.91	0.71	0.91	0.80

⁽¹⁾ All pre-retirement deaths are assumed to be non-service connected.

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Termination Rates Before Retirement (Continued):

Age	Rate (%) Disability		
	General ⁽¹⁾		Safety ⁽²⁾
	Male	Female	Male and Female
20	0.01	0.01	0.01
25	0.01	0.02	0.11
30	0.02	0.02	0.24
35	0.03	0.06	0.42
40	0.04	0.10	0.62
45	0.17	0.16	0.82
50	0.28	0.19	1.02
55	0.39	0.29	2.24
60	0.78	0.44	3.00
65	1.00	0.50	3.00

⁽¹⁾ One-third of General disabilities are assumed to be duty disabilities. The other two-thirds are assumed to be ordinary disabilities.

⁽²⁾ 100% of Safety disabilities are assumed to be duty disabilities.

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Termination Rates Before Retirement (Continued):

Rate (%)			
Total Termination (< 5 Years of Service)			
Years of Service	General		Safety
	Male	Female	Male and Female
0	17.00	15.00	17.00
1	8.00	7.00	6.00
2	7.00	6.50	5.00
3	6.00	5.00	4.75
4	6.00	5.00	4.50

Rate (%)			
Total Termination (5+ Years of Service)			
Age	General		Safety
	Male	Female	Male and Female
20	5.50	5.00	3.75
25	5.50	5.00	3.75
30	4.90	5.00	3.30
35	4.20	4.70	2.70
40	3.88	4.20	2.20
45	3.68	3.70	1.40
50	3.54	3.35	1.00
55	3.35	3.10	1.00
60	3.10	3.00	0.40
65	2.10	2.10	0.00

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Termination Rates Before Retirement (Continued):

Proportion of Total Termination Assumed to Receive Refunds and Deferred Vested Benefits (%)		
Years of Service	Refunds	Deferred Vested Benefits
0-4	90.00	10.00
5-9	30.00	70.00
10-14	30.00	70.00
15-19	15.00	85.00
20 or more	15.00	85.00

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Retirement Rates:

Rate (%)						
General						
Age	Tier 1	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5
	Male	Female	Male & Female	Male & Female	Male & Female	Male & Female
50	4.00	5.00	3.00	3.00	2.00	0.00
51	3.00	5.00	3.00	3.00	2.00	0.00
52	3.00	5.00	3.60	3.60	2.50	4.50
53	4.00	5.00	3.60	3.60	2.50	2.00
54	5.00	6.00	4.20	4.20	3.00	2.50
55	8.00	9.00	8.40	8.40	4.00	3.50
56	11.00	12.00	10.00	10.00	5.00	4.50
57	16.00	14.00	10.00	10.00	6.00	5.50
58	21.00	15.00	10.00	10.00	7.00	6.50
59	22.00	18.00	10.00	15.00	8.00	7.50
60	25.00	19.00	15.00	19.20	9.00	8.50
61	25.00	23.00	15.00	19.20	11.00	10.50
62	27.00	27.00	25.00	34.20	17.00	16.00
63	27.00	25.00	24.00	23.70	16.00	15.00
64	30.00	27.00	24.00	23.70	20.00	19.00
65	40.00	40.00	35.00	43.30	25.00	24.00
66	50.00	40.00	34.00	33.30	21.00	21.00
67	50.00	40.00	34.00	33.30	21.00	21.00
68	50.00	45.00	35.00	40.00	25.00	25.00
69	50.00	50.00	35.00	46.70	30.00	30.00
70	100.00	100.00	100.00	100.00	100.00	100.00

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Retirement Rates (Continued):

Rate (%)			
Safety			
Age	Tier 1 & Tier 2	Tier 4	Tier 5
	Male & Female	Male & Female	Male & Female
45	1.00	1.00	0.00
46	1.00	1.00	0.00
47	1.00	1.00	0.00
48	1.00	1.00	0.00
49	3.00	2.00	0.00
50	6.00	4.00	4.00
51	6.00	4.00	4.00
52	9.00	5.00	5.00
53	18.00	6.00	6.00
54	30.00	11.00	11.00
55	40.00	20.00	20.00
56	25.00	20.00	20.00
57	25.00	20.00	20.00
58	25.00	20.00	20.00
59	25.00	23.00	23.00
60	50.00	50.00	50.00
61	50.00	50.00	50.00
62	50.00	50.00	50.00
63	50.00	50.00	50.00
64	50.00	50.00	50.00
65	100.00	100.00	100.00

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

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

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

General: Age 58
Safety: Age 55

We assume that 40% of future General and 65% of future Safety deferred vested members will continue to work for a reciprocal employer. For these members, we assume 4.75% and 5.25% compensation increases per annum for General and Safety members, respectively.

Future Benefit Accruals:

1.0 year of service per year of employment.

Annual Leave Conversion:

Eligibility for annual leave plans is determined based on hire date along with other factors. The number of members in each plan used to set the assumptions below can be found on page 48 of our June 30, 2012 Actuarial Experience Study. The following assumptions for service converted from unused annual leave at retirement are used:

New Annual Leave Plan: 40 hours per year of service.

Annual Leave Plan II: 30 hours per year of service.

Vacation/Sick Leave Plans: 35 hours per year of service for General and 40 hours per year of service for Safety.

Annual Leave IV Plan or
the Old Annual Leave Plan: Based on actual hours in a member's frozen time off bank.

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

**Inclusion of Deferred Vested
Members:**

All deferred vested members are included in the valuation.

Percent Married:

75% of male members; 55% of female members.

Age of Spouse:

Wives are 3 years younger than their husbands.

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Net Investment Return: 7.25%, net of investment expenses.

Administrative Expenses: 1.10% of payroll allocated to both the employer and member based on the components of the total average contribution rate (before expenses) for the employer and member

Employee Contribution Crediting Rate: 3.00%, compounded semi-annually.

Consumer Price Index: Increase of 3.25% per year, retiree COLA increases due to CPI subject to a 3.00% maximum change per year for General Tiers 1, 2 and 3, and Safety Tiers 1 and 2. General and Safety Tiers 4 and 5 receive no COLA increases.

Salary Increases:

Annual Rate of Compensation Increase		
Inflation: 3.25%; an additional 0.50% "across the board" salary increases (other than inflation); plus the following Merit and Longevity increases based on service.		
Service	General	Safety
0	7.00%	7.00%
1	6.00%	6.00%
2	5.50%	5.50%
3	5.00%	5.25%
4	4.00%	4.25%
5	2.25%	3.75%
6	1.50%	3.50%
7	1.25%	3.25%
8 or more	1.00%	1.50%

Actuarial Value of Assets: The actuarial value of assets is determined by recognizing any difference between actual and expected market return over 10 six-month interest crediting periods. The actuarial value of assets is further adjusted, if necessary, to be within 30% of the market value of assets. Deferred gains and losses as of June 30, 2011 have been combined and will be recognized in equal amounts over a period of four and a half years from that date.

Valuation Value of Assets: The actuarial value of assets reduced by the value of the non-valuation reserves.

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Actuarial Cost Method:	Entry Age Cost Method. Entry Age is the age at the member's hire date. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are based on costs allocated as a level percentage of compensation, as if the current benefit formulas have always been in effect (i.e., "replacement life").
Changes in Actuarial Assumptions and Methods:	The following assumption has changed since the previous valuation.
Net Investment Return:	7.25%, net of investment and administrative expenses.

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

EXHIBIT VI

Summary of Plan Provisions

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

Membership Eligibility:

	Membership with FCERA usually begins with the first day of the pay period following the date of appointment to a permanent position of at least 50% full-time.
<i>General and Safety Tier 1</i>	All General and Safety members hired on or before June 30, 2005 and General and Safety members of certain bargaining units hired after June 30, 2005.
<i>General and Safety Tier 2</i>	General and Safety members of certain bargaining units hired after June 30, 2005 and those Tier 1 members hired on or before June 30, 2005 who elect to transfer to Tier 2.
<i>General Tier 3</i>	General members of certain bargaining units hired after December 17, 2007 and those eligible Tier 2 members hired on or before December 17, 2007 who elect to transfer to Tier 3.
<i>General and Safety Tier 4</i>	General and Safety County members hired on or after June 11, 2012.
<i>General and Safety Tier 5</i>	All General and Safety members hired on or after January 1, 2013.

Final Compensation for Benefit Determination:

<i>General and Safety Tiers 1 & 2</i>	Highest one-year average final compensation (§31462.1) (FAS1).
<i>General Tiers 3 & 4 and Safety Tier 4</i>	Highest three-year average final compensation (§31462) (FAS3).
<i>General and Safety Tier 5</i>	Highest consecutive three years of pensionable compensation (§7522.10(c), §7522.32 and §7522.34) (FAS3)

Service:	Years of service (Yrs).
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SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Service Retirement Eligibility:

General

General Tiers 1, 2, 3 &4

Age 50 with 10 years of service, or age 70 regardless of service, or after 30 years, regardless of age (§31672).

General Tier 5

Age 52 with 5 years of service credit (§7522.20(a)) or age 70 regardless of service (§31672.3).

Safety

Safety Tiers 1, 2 &4

Age 50 with 10 years of service, or after 30 years, regardless of age (§31663.25).

Safety Tier 5

Age 50 with 5 years of service credit (§7522.25(d)) or age 70 regardless of service (§31672.3).

Benefit Formula:

	Retirement Age	Benefit Formula
<i>General Tier 1</i>	50	$(1.86\% \times \text{FAS1} - 1/3 \times 1.86\% \times \$350 \times 12) \times \text{Yrs}$
<i>Regular benefit under §31676.12 and</i>	55	$(2.50\% \times \text{FAS1} - 1/3 \times 2.50\% \times \$350 \times 12) \times \text{Yrs}$
<i>Settlement benefit under §31676.14 and §31627</i>	60 or later	$(3.27\% \times \text{FAS1} - 1/3 \times 3.27\% \times \$350 \times 12) \times \text{Yrs}$
<i>General Tier 2 (§31676.16)</i>	50	$(1.43\% \times \text{FAS1} - 1/3 \times 1.43\% \times \$350 \times 12) \times \text{Yrs}$
	55	$(2.00\% \times \text{FAS1} - 1/3 \times 2.00\% \times \$350 \times 12) \times \text{Yrs}$
	60	$(2.26\% \times \text{FAS1} - 1/3 \times 2.26\% \times \$350 \times 12) \times \text{Yrs}$
	62	$(2.37\% \times \text{FAS1} - 1/3 \times 2.37\% \times \$350 \times 12) \times \text{Yrs}$
	63 or later	$(2.42\% \times \text{FAS1} - 1/3 \times 2.42\% \times \$350 \times 12) \times \text{Yrs}$
<i>General Tier 3 (§31676.15)</i>	50	$(1.49\% \times \text{FAS3} - 1/3 \times 1.49\% \times \$350 \times 12) \times \text{Yrs}$
	55	$(2.00\% \times \text{FAS3} - 1/3 \times 2.00\% \times \$350 \times 12) \times \text{Yrs}$
	60	$(2.62\% \times \text{FAS3} - 1/3 \times 2.62\% \times \$350 \times 12) \times \text{Yrs}$
	62	$(2.82\% \times \text{FAS3} - 1/3 \times 2.82\% \times \$350 \times 12) \times \text{Yrs}$
	65 or later	$(3.13\% \times \text{FAS3} - 1/3 \times 3.13\% \times \$350 \times 12) \times \text{Yrs}$

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<i>General Tier 4 (§31676.1)</i>	50	$(1.18\% \times \text{FAS3} - 1/3 \times 1.18\% \times \$350 \times 12) \times \text{Yrs}$
	55	$(1.49\% \times \text{FAS3} - 1/3 \times 1.49\% \times \$350 \times 12) \times \text{Yrs}$
	60	$(1.92\% \times \text{FAS3} - 1/3 \times 1.92\% \times \$350 \times 12) \times \text{Yrs}$
	62	$(2.09\% \times \text{FAS3} - 1/3 \times 2.09\% \times \$350 \times 12) \times \text{Yrs}$
	65 or later	$(2.43\% \times \text{FAS3} - 1/3 \times 2.43\% \times \$350 \times 12) \times \text{Yrs}$

<i>General Tier 5 (§7522.20(a))</i>	52	$1.00\% \times \text{FAS3} \times \text{Yrs}$
	55	$1.30\% \times \text{FAS3} \times \text{Yrs}$
	60	$1.80\% \times \text{FAS3} \times \text{Yrs}$
	62	$2.00\% \times \text{FAS3} \times \text{Yrs}$
	65	$2.30\% \times \text{FAS3} \times \text{Yrs}$
	67 or later	$2.50\% \times \text{FAS3} \times \text{Yrs}$

	Retirement Age	Benefit Formula
<i>Safety Tier 1</i> <i>Regular benefit under §31664 and</i> <i>Settlement benefit under §31627</i>	50	$(2.50\% \times \text{FAS1} - 1/3 \times 2.50\% \times \$350 \times 12) \times \text{Yrs}$
	55 or later	$(3.27\% \times \text{FAS1} - 1/3 \times 3.27\% \times \$350 \times 12) \times \text{Yrs}$
<i>Safety Tier 2 (§31664.2)</i>	50	$(2.29\% \times \text{FAS1} - 1/3 \times 2.29\% \times \$350 \times 12) \times \text{Yrs}$
	55 or later	$(3.00\% \times \text{FAS1} - 1/3 \times 3.00\% \times \$350 \times 12) \times \text{Yrs}$
<i>Safety Tier 4 (§31664)</i>	50	$(2.00\% \times \text{FAS3} - 1/3 \times 2.00\% \times \$350 \times 12) \times \text{Yrs}$
	55 or later	$(2.62\% \times \text{FAS3} - 1/3 \times 2.62\% \times \$350 \times 12) \times \text{Yrs}$
<i>Safety Tier 5 (§7522.25(d))</i>	50	$2.00\% \times \text{FAS3} \times \text{Yrs}$
	55	$2.50\% \times \text{FAS3} \times \text{Yrs}$
	57 or later	$2.70\% \times \text{FAS3} \times \text{Yrs}$

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Maximum Benefit:

*General Tiers 1, 2, 3 & 4 and
Safety Tiers 1, 2 & 4*

100% of Final Compensation (§31676.14, §31676.16, §31676.15, §31676.1, §31664 and §31664.2).

General Tier 5 and Safety Tier 5

None.

Ordinary Disability:*

General Tiers 1, 2, 4 & 5

Eligibility

Five years of service (§31720).

Benefit Formula

1.5% per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to 65, but the total benefit cannot be more than one-third of Final Compensation. The service retirement benefit is paid, if greater.

General Tier 3

Eligibility

Five years of service (§31720).

Benefit Formula

1.8% per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to 62, but the total benefit cannot be more than one-third of Final Compensation. The service retirement benefit is paid, if greater.

Safety Tiers 1, 2, 4 & 5

Eligibility

Five years of service (§31720).

Benefit Formula

1.8% per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to 55, but the total benefit cannot be more than one-third of Final Compensation. The service retirement benefit is paid, if greater.

** For General and Safety Tier 1 members who retire because of disability, there is an allocation of the value of their disability benefits made by the Association's Pension Administration System between the "Regular" and "Settlement" benefits assuming those members would have been eligible to retire and collect a service retirement benefit. While it does not change the total contribution rates paid by each of the employer and the employee, in this valuation we have adjusted the allocation of the rates between "Regular" and "Settlement" benefits to be consistent with the allocation made by the Association's Pension Administration System.*

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Line-of-Duty Disability:*

All Members

Eligibility

No age or service requirements (§31720).

Benefit Formula

50% of the Final Compensation or 100% of Service Retirement benefit, if greater (§31727.4).

Pre-Retirement Death:

All Members

Eligibility

None.

Basic lump sum benefit

Refund of employee contributions with interest, plus one month's compensation for each year of service, to a maximum of six months' compensation (§31781).

Death in line of duty

50% of Final Compensation or 100% of Service Retirement benefit, if greater, payable to spouse or minor children (§31787).

OR

Vested Members

Eligibility

Five years of service.

Basic benefit

60% of the greater of Service or Ordinary Disability Retirement benefit payable to surviving eligible spouse (§31765.1, §31781.1), in lieu of the basic lump sum benefit above.

Death in line of duty

50% of Final Compensation or 100% of Service Retirement benefit, if greater, payable to spouse or minor children (§31787).

** For General and Safety Tier 1 members who retire because of disability, there is an allocation of the value of their disability benefits made by the Association's Pension Administration System between the "Regular" and "Settlement" benefits assuming those members would have been eligible to retire and collect a service retirement benefit. While it does not change the total contribution rates paid by each of the employer and the employee, in this valuation we have adjusted the allocation of the rates between "Regular" and "Settlement" benefits to be consistent with the allocation made by the Association's Pension Administration System.*

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Death After Retirement:

All Members

Service or

Ordinary Disability Retirement

60% of member's unmodified allowance continued to eligible spouse (§31760.1). An eligible spouse is a surviving spouse who was married to the member at least one year prior to the date of retirement (§31760.1) or at least two years prior to the date of death and has attained age 55 on or prior to the date of death (§31786.1).

Line-of-Duty Disability

100% of member's allowance continued to eligible spouse (§31786).

Withdrawal Benefits:

Less than Five Years of Service

Refund of accumulated employee contributions with interest, or earned benefit at age 70 (§31628). Effective January 1, 2003, a member may also elect to leave contributions on deposit in the retirement fund (§31629.5).

Five or More Years of Service

If contributions left on deposit, entitled to earned benefits commencing at any time after eligible to retire (§31700).

Post-retirement

Cost-of-Living Benefits:

General Tiers 1, 2 & 3 and Safety Tiers 1 & 2

Future changes based on Consumer Price Index to a maximum of 3% per year; excess "banked" (§31870.1).

General Tiers 4 & 5 and Safety Tiers 4 & 5

None.

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Conversion of Annual Leave

General members

New Annual Leave Plan (5Y)	Members who entered the plan on or before October 10, 1983 and in bargaining groups who have agreed to this plan may convert hours in excess of 1,100 hours.
Annual Leave Plan II (5Y)	Members who entered the plan after October 10, 1983 with accruals in the 5Y leave plan and in bargaining groups who have agreed to this plan may convert hours in excess of 400 hours.
Vacation/Sick Leave Plans (5Q, 5S and 5W)	Members who entered the plan on or after December 14, 1998 and in bargaining groups who have agreed to these plans may convert all accrued sick leave hours to service upon retirement.
Annual Leave IV Plan or the Old Annual Leave Plan (5O)	Members hired on or after October 10, 1983 or prior to that date, respectively, and who are in bargaining groups who have agreed to these plans, management or are unrepresented will convert any frozen hours balance to service at retirement.

Safety members

New Annual Leave Plan (5Y)	Members who entered the plan on or before October 10, 1983 and in bargaining groups who have agreed to this plan may convert hours in excess of 1,100 hours.
Annual Leave Plan II (5Y)	Members who entered the plan after October 10, 1983 with accruals in the 5Y leave plan and in bargaining groups who have agreed to this plan may convert hours in excess of 400 hours.
Vacation/Sick Leave Plans (5Q, 5S and 5W)	Members who entered the plan on or after December 14, 1998 and in bargaining groups who have agreed to these plans may convert all accrued sick leave hours to service.
Annual Leave IV Plan or the Old Annual Leave Plan (5O)	Members hired on or after October 10, 1983 or prior to that date, respectively, and who are in bargaining groups who have agreed to these plans, management or are unrepresented will convert any frozen hours balance to service at retirement.

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

County Contributions:	Unfunded Actuarial Accrued Liability established as of June 30, 2003 is amortized over a declining 20-year period. Unfunded Actuarial Accrued Liability established as a result of the Tier 3 benefit improvement is amortized over a declining 23-year period. The amortization period for UAAL established on each subsequent valuation as a result of actuarial gains or losses, changes in actuarial assumptions or plan amendments is a declining 15-year period.
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Ventura Settlement Benefits:

Section 6	For Tier 1 members retiring on or after January 1, 2001 – This is the difference between the regular plus settlement benefits and the regular benefit (i.e., Section 31676.12 for General Tier 1 and Section 31664 for Safety Tier 1)
Section 8	For Tier 1 members who retired prior to January 1, 2001 - \$15 per month per year of service, up to a maximum monthly benefit of \$450.
Section 9	All retired members (excluding General Tiers 4 & 5 and Safety Tier 5 members) are entitled to a \$3 per month per year of service benefit. Future increase in this benefit will be tied to the amount of future undistributed earnings. For the purpose of this valuation, it is assumed that there will be no future increase in the amount of benefit.

Non-Vested Supplemental Benefit:	Non-vested discretionary purchasing power and additional retiree health benefits are also paid to eligible retirees and beneficiaries. These benefits and the associated reserves have been excluded from the development of employer and member contribution rates in this valuation.
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Member Contributions:	Please refer to Appendix A for specific rates.
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General Tier 1

<i>Regular Basic</i>	Provide for an average annuity at age 60 equal to 1/200 of FAS1 (§31621.5).
<i>Regular Plus Settlement Basic</i>	Provide for an average annuity at age 55 equal to 1/160 of FAS1 (§31627).
<i>Cost-of-Living</i>	Provide for one-half of future Cost-of-Living costs.

General Tier 2

<i>Basic</i>	Provide for an average annuity at age 60 equal to 1/240 of FAS1 (§31621.4).
<i>Cost-of-Living</i>	Provide for one-half of future Cost-of-Living costs.

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

General Tier 3

Basic

Provide for an average annuity at age 55 equal to 1/200 of FAS3 (§31621.6 and §31630).

Cost-of-Living

Provide for one-half of future Cost-of-Living costs.

General Tier 4

Basic

Provide for an average annuity at age 60 equal to 1/120 of FAS3 (§31621).

Cost-of-Living

Not applicable.

General Tier 5

50% of the total Normal Cost rate.

Safety Tier 1

Regular Basic

Provide for an average annuity at age 50 equal to 1/200 of FAS1 (§31639.5).

Regular Plus Settlement Basic

Provide for an average annuity at age 50 equal to 1/160 of FAS1 (§31627).

Cost-of-Living

Provide for one-half of future Cost-of-Living costs.

Safety Tier 2

Basic

Provide for an average annuity at age 50 equal to 1/200 of FAS1 (§31639.5).

Cost-of-Living

Provide for one-half of future Cost-of-Living costs.

Safety Tier 4

Basic

Provide for an average annuity at age 50 equal to 1/100 of FAS3 (§31639.25).

Cost-of-Living

Not applicable.

Safety Tier 5

50% of the total Normal Cost rate.

Other Information:

Non-Tier 5 Safety members with 30 or more years of service are exempt from paying member contributions. The same applies for General members hired on or before March 7, 1973.

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

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Appendix A

Member Contribution Rates

Comparison of Total Member Rate from June 30, 2014 (New)⁽¹⁾ and June 30, 2013 (Current) Valuations

General Tier 1 ⁽²⁾				General Tier 2 ⁽²⁾			
Entry Age	Current	New	Change	Entry Age	Current	New	Change
25	8.78%	8.93%	0.15%	25	5.74%	5.90%	0.16%
35	10.09%	10.23%	0.14%	35	6.60%	6.76%	0.16%
45	11.79%	11.94%	0.15%	45	7.62%	7.78%	0.16%
General Tier 3 ⁽²⁾				General Tier 4 ⁽²⁾			
Entry Age	Current	New	Change	Entry Age	Current	New	Change
25	6.89%	7.05%	0.16%	25	5.81%	5.98%	0.17%
35	7.92%	8.08%	0.16%	35	6.68%	6.85%	0.17%
45	9.26%	9.41%	0.15%	45	7.71%	7.88%	0.17%
General Tier 5							
Entry Age	Current	New	Change				
Any ⁽³⁾	6.96%	7.02%	0.06%				

⁽¹⁾ Includes an explicit administrative expense load of 0.17% of payroll that has been allocated to the member contribution rate.

⁽²⁾ For non-CalPEPRA members, contributions for the first \$350 of monthly payroll are based on 2/3 (no adjustment for the 0.17% administrative expense load) of the above rates.

⁽³⁾ CalPEPRA member rates are independent of entry age.

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Appendix A

Member Contribution Rates

Comparison of Total Member Rate from June 30, 2014 (New)⁽¹⁾ and June 30, 2013 (Current) Valuations

Safety Tier 1 ⁽²⁾				Safety Tier 2 ⁽²⁾			
Entry Age	Current	New	Change	Entry Age	Current	New	Change
25	12.40%	12.56%	0.16%	25	10.65%	10.80%	0.15%
30	13.16%	13.31%	0.15%	30	11.29%	11.44%	0.15%
35	14.01%	14.17%	0.16%	35	12.03%	12.19%	0.16%
Safety Tier 4 ⁽²⁾				Safety Tier 5			
Entry Age	Current	New	Change	Entry Age	Current	New	Change
25	9.47%	9.64%	0.17%	Any ⁽³⁾	11.96%	12.51%	0.55%
30	10.04%	10.21%	0.17%				
35	10.70%	10.87%	0.17%				

⁽¹⁾ Includes an explicit administrative expense load of 0.17% of payroll that has been allocated to the member contribution rate.

⁽²⁾ For non-CalPEPRA members, contributions for the first \$350 of monthly payroll are based on 2/3 (no adjustment for the 0.17% administrative expense load) of the above rates.

⁽³⁾ CalPEPRA member rates are independent of entry age.

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Appendix A

Member Contribution Rates (Continued)

General Tier 1 Members' Contribution Rates based on the June 30, 2014 Actuarial Valuation as a percentage of payroll

Age	Basic Regular First \$350 per month	Basic Regular Over \$350 per month	COLA Regular First \$350 per month	COLA Regular Over \$350 per month	Basic Settlement First \$350 per month	Basic Settlement Over \$350 per month	COLA Settlement First \$350 per month	COLA Settlement Over \$350 per month	Combined First \$350 per month	Combined Over \$350 per month
15	2.32%	3.39%	1.56%	2.34%	0.93%	1.39%	0.52%	0.78%	5.33%	7.90%
16	2.32%	3.39%	1.56%	2.34%	0.93%	1.39%	0.52%	0.78%	5.33%	7.90%
17	2.35%	3.44%	1.59%	2.38%	0.93%	1.40%	0.53%	0.79%	5.40%	8.01%
18	2.38%	3.48%	1.61%	2.41%	0.95%	1.43%	0.53%	0.80%	5.47%	8.12%
19	2.41%	3.53%	1.63%	2.45%	0.96%	1.44%	0.54%	0.81%	5.54%	8.23%
20	2.44%	3.58%	1.65%	2.48%	0.97%	1.46%	0.55%	0.82%	5.61%	8.34%
21	2.47%	3.62%	1.67%	2.51%	0.99%	1.49%	0.56%	0.84%	5.69%	8.46%
22	2.51%	3.67%	1.70%	2.55%	1.01%	1.51%	0.57%	0.85%	5.79%	8.58%
23	2.54%	3.72%	1.73%	2.59%	1.02%	1.53%	0.57%	0.86%	5.86%	8.70%
24	2.57%	3.77%	1.75%	2.62%	1.03%	1.55%	0.58%	0.87%	5.93%	8.81%
25	2.60%	3.82%	1.77%	2.66%	1.05%	1.57%	0.59%	0.88%	6.01%	8.93%
26	2.64%	3.87%	1.80%	2.70%	1.06%	1.59%	0.59%	0.89%	6.09%	9.05%
27	2.67%	3.92%	1.82%	2.73%	1.08%	1.62%	0.61%	0.91%	6.18%	9.18%
28	2.71%	3.98%	1.85%	2.77%	1.09%	1.63%	0.61%	0.91%	6.26%	9.29%
29	2.74%	4.03%	1.87%	2.81%	1.11%	1.66%	0.62%	0.93%	6.34%	9.43%
30	2.78%	4.08%	1.90%	2.85%	1.12%	1.68%	0.63%	0.94%	6.43%	9.55%
31	2.82%	4.14%	1.93%	2.89%	1.13%	1.70%	0.63%	0.95%	6.51%	9.68%
32	2.85%	4.19%	1.95%	2.93%	1.15%	1.73%	0.65%	0.97%	6.60%	9.82%

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Age	Basic Regular First \$350 per month	Basic Regular Over \$350 per month	COLA Regular First \$350 per month	COLA Regular Over \$350 per month	Basic Settlement First \$350 per month	Basic Settlement Over \$350 per month	COLA Settlement First \$350 per month	COLA Settlement Over \$350 per month	Combined First \$350 per month	Combined Over \$350 per month
33	2.89%	4.25%	1.98%	2.97%	1.17%	1.75%	0.65%	0.98%	6.69%	9.95%
34	2.93%	4.31%	2.01%	3.01%	1.19%	1.78%	0.67%	1.00%	6.80%	10.10%
35	2.97%	4.37%	2.03%	3.05%	1.20%	1.80%	0.67%	1.01%	6.87%	10.23%
36	3.01%	4.42%	2.07%	3.10%	1.23%	1.84%	0.69%	1.03%	7.00%	10.39%
37	3.05%	4.48%	2.09%	3.14%	1.25%	1.87%	0.70%	1.05%	7.09%	10.54%
38	3.09%	4.54%	2.12%	3.18%	1.27%	1.90%	0.71%	1.07%	7.19%	10.69%
39	3.13%	4.61%	2.15%	3.23%	1.28%	1.92%	0.72%	1.08%	7.28%	10.84%
40	3.17%	4.67%	2.19%	3.28%	1.31%	1.96%	0.73%	1.10%	7.40%	11.01%
41	3.21%	4.74%	2.21%	3.32%	1.33%	1.99%	0.75%	1.12%	7.50%	11.17%
42	3.26%	4.80%	2.25%	3.37%	1.36%	2.04%	0.76%	1.14%	7.63%	11.35%
43	3.30%	4.87%	2.28%	3.42%	1.39%	2.08%	0.78%	1.17%	7.75%	11.54%
44	3.35%	4.94%	2.31%	3.47%	1.41%	2.12%	0.79%	1.19%	7.86%	11.72%
45	3.40%	5.01%	2.35%	3.53%	1.45%	2.18%	0.81%	1.22%	8.01%	11.94%
46	3.45%	5.09%	2.39%	3.58%	1.49%	2.24%	0.84%	1.26%	8.17%	12.17%
47	3.50%	5.17%	2.43%	3.64%	1.53%	2.30%	0.86%	1.29%	8.32%	12.40%
48	3.56%	5.25%	2.47%	3.70%	1.57%	2.36%	0.88%	1.32%	8.48%	12.63%
49	3.62%	5.34%	2.51%	3.76%	1.59%	2.38%	0.89%	1.34%	8.61%	12.82%
50	3.68%	5.43%	2.55%	3.83%	1.54%	2.31%	0.87%	1.30%	8.64%	12.87%
51	3.75%	5.54%	2.61%	3.91%	1.44%	2.16%	0.81%	1.21%	8.61%	12.82%
52	3.82%	5.64%	2.65%	3.98%	1.34%	2.01%	0.75%	1.13%	8.56%	12.76%
53	3.89%	5.75%	2.71%	4.06%	1.22%	1.83%	0.69%	1.03%	8.51%	12.67%
54	3.94%	5.83%	2.75%	4.12%	1.09%	1.63%	0.61%	0.91%	8.39%	12.49%

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Age	Basic Regular First \$350 per month	Basic Regular Over \$350 per month	COLA Regular First \$350 per month	COLA Regular Over \$350 per month	Basic Settlement First \$350 per month	Basic Settlement Over \$350 per month	COLA Settlement First \$350 per month	COLA Settlement Over \$350 per month	Combined First \$350 per month	Combined Over \$350 per month
55	3.95%	5.84%	2.75%	4.13%	1.09%	1.63%	0.61%	0.91%	8.40%	12.51%
56	3.94%	5.82%	2.74%	4.11%	1.09%	1.63%	0.61%	0.91%	8.38%	12.47%
57	3.91%	5.78%	2.72%	4.08%	1.09%	1.63%	0.61%	0.91%	8.33%	12.40%
58	3.87%	5.72%	2.69%	4.04%	1.09%	1.63%	0.61%	0.91%	8.26%	12.30%
59+	3.81%	5.64%	2.65%	3.98%	1.09%	1.63%	0.61%	0.91%	8.16%	12.16%

Interest:	7.25% per annum
COLA:	3.00%
Administrative Expenses:	0.17% of payroll added to Basic Regular rates
Mortality:	RP-2000 Combined Healthy Mortality Table projected with Scale AA to 2015, set back one year for males and set back two years for females weighted 35% male and 65% female
Salary Increase:	Inflation (3.25%) + Across-the-Board Increase (0.50%) + Merit (See Exhibit V)
COLA Loading Factor:	72.79% for Regular Benefits, applied to Basic rates prior to adjustment for administrative expenses, and 56.10% for Settlement Benefits.

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association**Appendix A****Member Contribution Rates (Continued)**

General Tier 2 Members' Contribution Rates based on the June 30, 2014 Actuarial Valuation as a percentage of payroll						
Age	Basic Regular First \$350 per month	Basic Regular Over \$350 per month	COLA Regular First \$350 per month	COLA Regular Over \$350 per month	Combined First \$350 per month	Combined Over \$350 per month
15	1.96%	2.85%	1.59%	2.38%	3.55%	5.23%
16	1.96%	2.85%	1.59%	2.38%	3.55%	5.23%
17	1.98%	2.89%	1.61%	2.41%	3.59%	5.30%
18	2.01%	2.93%	1.63%	2.44%	3.64%	5.37%
19	2.04%	2.97%	1.65%	2.48%	3.69%	5.45%
20	2.06%	3.01%	1.67%	2.51%	3.73%	5.52%
21	2.09%	3.05%	1.70%	2.55%	3.79%	5.60%
22	2.12%	3.09%	1.72%	2.58%	3.84%	5.67%
23	2.14%	3.13%	1.75%	2.62%	3.89%	5.75%
24	2.17%	3.17%	1.77%	2.66%	3.94%	5.83%
25	2.20%	3.21%	1.79%	2.69%	3.99%	5.90%
26	2.23%	3.26%	1.82%	2.73%	4.05%	5.99%
27	2.26%	3.30%	1.85%	2.77%	4.11%	6.07%
28	2.29%	3.34%	1.87%	2.81%	4.16%	6.15%
29	2.31%	3.39%	1.90%	2.85%	4.21%	6.24%

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Age	Basic Regular First \$350 per month	Basic Regular Over \$350 per month	COLA Regular First \$350 per month	COLA Regular Over \$350 per month	Combined First \$350 per month	Combined Over \$350 per month
30	2.34%	3.43%	1.93%	2.89%	4.27%	6.32%
31	2.37%	3.48%	1.95%	2.93%	4.32%	6.41%
32	2.41%	3.52%	1.98%	2.97%	4.39%	6.49%
33	2.44%	3.57%	2.01%	3.01%	4.45%	6.58%
34	2.47%	3.62%	2.03%	3.05%	4.50%	6.67%
35	2.50%	3.67%	2.06%	3.09%	4.56%	6.76%
36	2.53%	3.71%	2.09%	3.14%	4.62%	6.85%
37	2.57%	3.76%	2.12%	3.18%	4.69%	6.94%
38	2.60%	3.82%	2.15%	3.23%	4.75%	7.05%
39	2.64%	3.87%	2.18%	3.27%	4.82%	7.14%
40	2.67%	3.92%	2.21%	3.32%	4.88%	7.24%
41	2.71%	3.97%	2.25%	3.37%	4.96%	7.34%
42	2.74%	4.03%	2.28%	3.42%	5.02%	7.45%
43	2.78%	4.09%	2.31%	3.47%	5.09%	7.56%
44	2.82%	4.15%	2.35%	3.52%	5.17%	7.67%
45	2.86%	4.21%	2.38%	3.57%	5.24%	7.78%
46	2.90%	4.27%	2.42%	3.63%	5.32%	7.90%
47	2.95%	4.34%	2.46%	3.69%	5.41%	8.03%
48	2.99%	4.40%	2.50%	3.75%	5.49%	8.15%
49	3.04%	4.48%	2.54%	3.81%	5.58%	8.29%

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Age	Basic Regular First \$350 per month	Basic Regular Over \$350 per month	COLA Regular First \$350 per month	COLA Regular Over \$350 per month	Combined First \$350 per month	Combined Over \$350 per month
50	3.09%	4.56%	2.59%	3.88%	5.68%	8.44%
51	3.15%	4.64%	2.64%	3.96%	5.79%	8.60%
52	3.21%	4.73%	2.69%	4.04%	5.90%	8.77%
53	3.27%	4.82%	2.74%	4.11%	6.01%	8.93%
54	3.31%	4.89%	2.79%	4.18%	6.10%	9.07%
55	3.32%	4.90%	2.79%	4.19%	6.11%	9.09%
56	3.31%	4.88%	2.78%	4.17%	6.09%	9.05%
57	3.29%	4.84%	2.76%	4.14%	6.05%	8.98%
58	3.26%	4.80%	2.73%	4.10%	5.99%	8.90%
59+	3.21%	4.73%	2.69%	4.03%	5.90%	8.76%

Interest: 7.25% per annum

COLA: 3.00%

Administrative Expenses: 0.17% of payroll added to Basic Regular rates

Mortality: RP-2000 Combined Healthy Mortality Table projected with Scale AA to 2015, set back one year for males and set back two years for females weighted 35% male and 65% female

Salary Increase: Inflation (3.25%) + Across-the-Board Increase (0.50%) + Merit (See Exhibit V)

COLA Loading Factor: 88.52% for Regular Benefits, applied to Basic rates prior to adjustment for administrative expenses

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association**Appendix A****Member Contribution Rates (Continued)****General Tier 3 Members' Contribution Rates based on the June 30, 2014
Actuarial Valuation as a percentage of payroll**

Age	Basic Regular	Basic Regular	COLA	COLA	Combined	Combined
	First \$350 per month	Over \$350 per month	First \$350 per month	Over \$350 per month	First \$350 per month	Over \$350 per month
15	2.52%	3.69%	1.70%	2.55%	4.22%	6.24%
16	2.52%	3.69%	1.70%	2.55%	4.22%	6.24%
17	2.55%	3.74%	1.72%	2.58%	4.27%	6.32%
18	2.58%	3.79%	1.75%	2.62%	4.33%	6.41%
19	2.62%	3.84%	1.77%	2.66%	4.39%	6.50%
20	2.65%	3.89%	1.79%	2.69%	4.44%	6.58%
21	2.69%	3.94%	1.82%	2.73%	4.51%	6.67%
22	2.72%	4.00%	1.85%	2.77%	4.57%	6.77%
23	2.76%	4.05%	1.87%	2.81%	4.63%	6.86%
24	2.79%	4.10%	1.90%	2.85%	4.69%	6.95%
25	2.83%	4.16%	1.93%	2.89%	4.76%	7.05%
26	2.87%	4.22%	1.95%	2.93%	4.82%	7.15%
27	2.90%	4.27%	1.98%	2.97%	4.88%	7.24%
28	2.94%	4.33%	2.01%	3.01%	4.95%	7.34%
29	2.98%	4.39%	2.03%	3.05%	5.01%	7.44%

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Age	Basic Regular First \$350 per month	Basic Regular Over \$350 per month	COLA Regular First \$350 per month	COLA Regular Over \$350 per month	Combined First \$350 per month	Combined Over \$350 per month
30	3.02%	4.45%	2.06%	3.09%	5.08%	7.54%
31	3.06%	4.51%	2.09%	3.14%	5.15%	7.65%
32	3.10%	4.57%	2.12%	3.18%	5.22%	7.75%
33	3.14%	4.63%	2.15%	3.23%	5.29%	7.86%
34	3.19%	4.69%	2.18%	3.27%	5.37%	7.96%
35	3.23%	4.76%	2.21%	3.32%	5.44%	8.08%
36	3.27%	4.82%	2.25%	3.37%	5.52%	8.19%
37	3.32%	4.89%	2.28%	3.42%	5.60%	8.31%
38	3.36%	4.96%	2.31%	3.47%	5.67%	8.43%
39	3.41%	5.03%	2.35%	3.52%	5.76%	8.55%
40	3.46%	5.11%	2.38%	3.57%	5.84%	8.68%
41	3.51%	5.18%	2.42%	3.63%	5.93%	8.81%
42	3.57%	5.26%	2.46%	3.69%	6.03%	8.95%
43	3.62%	5.35%	2.50%	3.75%	6.12%	9.10%
44	3.68%	5.44%	2.54%	3.81%	6.22%	9.25%
45	3.74%	5.53%	2.59%	3.88%	6.33%	9.41%
46	3.81%	5.62%	2.63%	3.95%	6.44%	9.57%
47	3.86%	5.71%	2.67%	4.01%	6.53%	9.72%
48	3.90%	5.76%	2.70%	4.05%	6.60%	9.81%
49	3.90%	5.77%	2.70%	4.05%	6.60%	9.82%

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Age	Basic Regular First \$350 per month	Basic Regular Over \$350 per month	COLA Regular First \$350 per month	COLA Regular Over \$350 per month	Combined First \$350 per month	Combined Over \$350 per month
50	3.88%	5.74%	2.69%	4.03%	6.57%	9.77%
51	3.85%	5.69%	2.67%	4.00%	6.52%	9.69%
52	3.81%	5.62%	2.63%	3.95%	6.44%	9.57%
53	3.93%	5.81%	2.72%	4.08%	6.65%	9.89%
54+	4.06%	6.00%	2.81%	4.22%	6.87%	10.22%

Interest: 7.25% per annum

COLA: 3.00%

Administrative Expenses: 0.17% of payroll added to Basic Regular rates

Mortality: RP-2000 Combined Healthy Mortality Table projected with Scale AA to 2015, set back one year for males and set back two years for females weighted 35% male and 65% female

Salary Increase: Inflation (3.25%) + Across-the-Board Increase (0.50%) + Merit (See Exhibit V)

COLA Loading Factor: 72.38% for Regular Benefits, applied to Basic rates prior to adjustment for administrative expenses

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association**Appendix A****Member Contribution Rates (Continued)**

General Tier 4 Members' Contribution Rates based on the June 30, 2014 Actuarial Valuation as a percentage of payroll								
Age	Basic Regular First \$350 per month	Basic Regular Over \$350 per month	Age	Basic Regular First \$350 per month	Basic Regular Over \$350 per month	Age	Basic Regular First \$350 per month	Basic Regular Over \$350 per month
15	3.59%	5.30%	30	4.32%	6.40%	45	5.31%	7.88%
16	3.59%	5.30%	31	4.38%	6.49%	46	5.39%	8.00%
17	3.64%	5.37%	32	4.44%	6.58%	47	5.48%	8.13%
18	3.69%	5.44%	33	4.50%	6.67%	48	5.56%	8.26%
19	3.74%	5.52%	34	4.56%	6.76%	49	5.66%	8.40%
20	3.79%	5.59%	35	4.62%	6.85%	50	5.75%	8.55%
21	3.84%	5.67%	36	4.69%	6.94%	51	5.85%	8.69%
22	3.89%	5.75%	37	4.75%	7.04%	52	5.94%	8.82%
23	3.94%	5.83%	38	4.81%	7.14%	53	5.99%	8.90%
24	3.99%	5.90%	39	4.88%	7.23%	54	6.00%	8.92%
25	4.05%	5.98%	40	4.95%	7.34%	55	5.97%	8.87%
26	4.10%	6.07%	41	5.02%	7.44%	56	5.92%	8.80%
27	4.16%	6.15%	42	5.09%	7.55%	57	5.85%	8.69%
28	4.21%	6.23%	43	5.16%	7.65%	58	6.04%	8.98%
29	4.27%	6.32%	44	5.23%	7.77%	59+	6.24%	9.28%

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Interest:	7.25% per annum
COLA:	0.00%
Administrative Expenses:	0.17% of payroll added to Basic Regular rates
Mortality:	RP-2000 Combined Healthy Mortality Table projected with Scale AA to 2015, set back one year for males and set back two years for females weighted 35% male and 65% female
Salary Increase:	Inflation (3.25%) + Across-the-Board Increase (0.50%) + Merit (See Exhibit V)

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Appendix A

Member Contribution Rates (Continued)

General Tier 5 Members' Contribution Rates based on the June 30, 2014 Actuarial Valuation as a percentage of payroll

	All Eligible Pay*
All members	7.02%
Interest:	7.25% per annum
COLA:	0.00%
Administrative Expenses:	0.17% of payroll added to the rate
Mortality:	RP-2000 Combined Healthy Mortality Table projected with Scale AA to 2015, set back one year for males and set back two years for females weighted 35% male and 65% female
Salary Increase:	Inflation (3.25%) + Across-the-Board Increase (0.50%) + Merit (See Exhibit V)

* It is our understanding that in the determination of pension benefits under the CalPEPRA formulas, the compensation that can be taken into account for 2014 is \$115,064. (For an employer that is not enrolled in Social Security, the maximum amount is \$138,077) (reference Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2014 (reference Section 7522.10(d)).

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Appendix A

Member Contribution Rates (Continued)

Safety Tier 1 Members' Contribution Rates based on the June 30, 2014 Actuarial Valuation as a percentage of payroll										
Age	Basic Regular First \$350 per month	Basic Regular Over \$350 per month	COLA Regular First \$350 per month	COLA Regular Over \$350 per month	Basic Settlement First \$350 per month	Basic Settlement Over \$350 per month	COLA Settlement First \$350 per month	COLA Settlement Over \$350 per month	Combined First \$350 per month	Combined Over \$350 per month
15	3.17%	4.67%	3.01%	4.52%	0.75%	1.13%	0.71%	1.06%	7.64%	11.38%
16	3.17%	4.67%	3.01%	4.52%	0.75%	1.13%	0.71%	1.06%	7.64%	11.38%
17	3.20%	4.72%	3.05%	4.57%	0.76%	1.14%	0.71%	1.07%	7.72%	11.50%
18	3.24%	4.77%	3.08%	4.62%	0.77%	1.15%	0.72%	1.08%	7.81%	11.62%
19	3.27%	4.82%	3.11%	4.67%	0.78%	1.17%	0.73%	1.10%	7.89%	11.76%
20	3.31%	4.88%	3.15%	4.72%	0.78%	1.17%	0.73%	1.10%	7.97%	11.87%
21	3.34%	4.93%	3.19%	4.78%	0.79%	1.19%	0.75%	1.12%	8.07%	12.02%
22	3.38%	4.98%	3.22%	4.83%	0.81%	1.21%	0.76%	1.14%	8.17%	12.16%
23	3.42%	5.04%	3.26%	4.89%	0.81%	1.21%	0.76%	1.14%	8.25%	12.28%
24	3.45%	5.09%	3.29%	4.94%	0.82%	1.23%	0.77%	1.16%	8.33%	12.42%
25	3.49%	5.15%	3.33%	5.00%	0.83%	1.24%	0.78%	1.17%	8.43%	12.56%
26	3.53%	5.21%	3.37%	5.06%	0.84%	1.26%	0.79%	1.19%	8.53%	12.72%
27	3.57%	5.27%	3.41%	5.12%	0.85%	1.27%	0.80%	1.20%	8.63%	12.86%
28	3.61%	5.33%	3.45%	5.18%	0.86%	1.29%	0.81%	1.22%	8.73%	13.02%
29	3.65%	5.39%	3.49%	5.24%	0.87%	1.30%	0.82%	1.23%	8.83%	13.16%
30	3.69%	5.45%	3.53%	5.30%	0.88%	1.32%	0.83%	1.24%	8.93%	13.31%
31	3.73%	5.51%	3.58%	5.37%	0.89%	1.34%	0.84%	1.26%	9.04%	13.48%
32	3.78%	5.58%	3.62%	5.43%	0.90%	1.35%	0.85%	1.27%	9.15%	13.63%
33	3.82%	5.65%	3.67%	5.50%	0.91%	1.37%	0.86%	1.29%	9.26%	13.81%
34	3.87%	5.72%	3.71%	5.57%	0.93%	1.39%	0.87%	1.31%	9.38%	13.99%

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Age	Basic Regular First \$350 per month	Basic Regular Over \$350 per month	COLA Regular First \$350 per month	COLA Regular Over \$350 per month	Basic Settlement First \$350 per month	Basic Settlement Over \$350 per month	COLA Settlement First \$350 per month	COLA Settlement Over \$350 per month	Combined First \$350 per month	Combined Over \$350 per month
35	3.92%	5.80%	3.77%	5.65%	0.93%	1.40%	0.88%	1.32%	9.50%	14.17%
36	3.97%	5.88%	3.82%	5.73%	0.95%	1.42%	0.89%	1.34%	9.63%	14.37%
37	4.03%	5.96%	3.87%	5.81%	0.97%	1.45%	0.91%	1.37%	9.78%	14.59%
38	4.09%	6.05%	3.93%	5.90%	0.98%	1.47%	0.93%	1.39%	9.93%	14.81%
39	4.15%	6.14%	4.00%	6.00%	1.00%	1.50%	0.94%	1.41%	10.09%	15.05%
40	4.22%	6.25%	4.07%	6.10%	1.01%	1.52%	0.95%	1.43%	10.25%	15.30%
41	4.30%	6.37%	4.15%	6.22%	1.03%	1.55%	0.97%	1.46%	10.45%	15.60%
42	4.33%	6.40%	4.17%	6.26%	1.04%	1.56%	0.98%	1.47%	10.52%	15.69%
43	4.34%	6.43%	4.19%	6.29%	1.05%	1.57%	0.99%	1.48%	10.57%	15.77%
44	4.36%	6.45%	4.21%	6.31%	1.05%	1.57%	0.99%	1.48%	10.61%	15.81%
45	4.36%	6.46%	4.21%	6.31%	1.05%	1.57%	0.99%	1.48%	10.61%	15.82%
46	4.34%	6.42%	4.18%	6.27%	1.04%	1.56%	0.98%	1.47%	10.54%	15.72%
47	4.31%	6.38%	4.15%	6.23%	1.03%	1.55%	0.97%	1.46%	10.46%	15.62%
48	4.27%	6.31%	4.11%	6.17%	1.03%	1.54%	0.97%	1.45%	10.38%	15.47%
49+	4.20%	6.22%	4.05%	6.07%	1.01%	1.51%	0.95%	1.42%	10.21%	15.22%

Interest:	7.25% per annum
COLA:	3.00%
Administrative Expenses:	0.17% of payroll added to Basic Regular rates
Mortality:	RP-2000 Combined Healthy Mortality Table projected with Scale AA to 2015, set back one year weighted 80% male and 20% female
Salary Increase:	Inflation (3.25%) + Across-the-Board Increase (0.50%) + Merit (See Exhibit V)
COLA Loading Factor:	100.38% for Regular Benefits, applied to Basic rates prior to adjustment for administrative expenses, and 94.24% for Settlement Benefits

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association**Appendix A****Member Contribution Rates (Continued)****Safety Tier 2 Members' Contribution Rates based on the June 30, 2014
Actuarial Valuation as a percentage of payroll**

Age	Basic Regular	Basic Regular	COLA	COLA	Combined	Combined
	First \$350 per month	Over \$350 per month	First \$350 per month	Over \$350 per month	First \$350 per month	Over \$350 per month
15	3.17%	4.67%	3.41%	5.11%	6.58%	9.78%
16	3.17%	4.67%	3.41%	5.11%	6.58%	9.78%
17	3.20%	4.72%	3.45%	5.17%	6.65%	9.89%
18	3.24%	4.77%	3.48%	5.22%	6.72%	9.99%
19	3.27%	4.82%	3.52%	5.28%	6.79%	10.10%
20	3.31%	4.88%	3.56%	5.34%	6.87%	10.22%
21	3.34%	4.93%	3.60%	5.40%	6.94%	10.33%
22	3.38%	4.98%	3.64%	5.46%	7.02%	10.44%
23	3.42%	5.04%	3.69%	5.53%	7.11%	10.57%
24	3.45%	5.09%	3.73%	5.59%	7.18%	10.68%
25	3.49%	5.15%	3.77%	5.65%	7.26%	10.80%
26	3.53%	5.21%	3.81%	5.72%	7.34%	10.93%
27	3.57%	5.27%	3.86%	5.79%	7.43%	11.06%
28	3.61%	5.33%	3.90%	5.85%	7.51%	11.18%
29	3.65%	5.39%	3.95%	5.92%	7.60%	11.31%
30	3.69%	5.45%	3.99%	5.99%	7.68%	11.44%
31	3.73%	5.51%	4.05%	6.07%	7.78%	11.58%
32	3.78%	5.58%	4.09%	6.14%	7.87%	11.72%
33	3.82%	5.65%	4.15%	6.22%	7.97%	11.87%
34	3.87%	5.72%	4.20%	6.30%	8.07%	12.02%

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Age	Basic Regular First \$350 per month	Basic Regular Over \$350 per month	COLA Regular First \$350 per month	COLA Regular Over \$350 per month	Combined First \$350 per month	Combined Over \$350 per month
35	3.92%	5.80%	4.26%	6.39%	8.18%	12.19%
36	3.97%	5.88%	4.32%	6.48%	8.29%	12.36%
37	4.03%	5.96%	4.38%	6.57%	8.41%	12.53%
38	4.09%	6.05%	4.45%	6.67%	8.54%	12.72%
39	4.15%	6.14%	4.52%	6.78%	8.67%	12.92%
40	4.22%	6.25%	4.60%	6.90%	8.82%	13.15%
41	4.30%	6.37%	4.69%	7.04%	8.99%	13.41%
42	4.33%	6.40%	4.72%	7.08%	9.05%	13.48%
43	4.34%	6.43%	4.74%	7.11%	9.08%	13.54%
44	4.36%	6.45%	4.75%	7.13%	9.11%	13.58%
45	4.36%	6.46%	4.76%	7.14%	9.12%	13.60%
46	4.34%	6.42%	4.73%	7.10%	9.07%	13.52%
47	4.31%	6.38%	4.69%	7.04%	9.00%	13.42%
48	4.27%	6.31%	4.65%	6.98%	8.92%	13.29%
49+	4.20%	6.22%	4.58%	6.87%	8.78%	13.09%

Interest:	7.25% per annum
COLA:	3.00%
Administrative Expenses:	0.17% of payroll added to Basic Regular rates
Mortality:	RP-2000 Combined Healthy Mortality Table projected with Scale AA to 2015, set back one year weighted 80% male and 20% female
Salary Increase:	Inflation (3.25%) + Across-the-Board Increase (0.50%) + Merit (See Exhibit V)
COLA Loading Factor:	113.52% for Regular Benefits, applied to Basic rates prior to adjustment for administrative expenses

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association**Appendix A****Member Contribution Rates (Continued)****Safety Tier 4 Members' Contribution Rates based on the June 30, 2014
Actuarial Valuation as a percentage of payroll**

Age	Basic Regular First \$350 per month	Basic Regular Over \$350 per month	Age	Basic Regular First \$350 per month	Basic Regular Over \$350 per month
15	5.88%	8.73%	33	6.95%	10.59%
16	5.71%	8.73%	34	7.04%	10.73%
17	5.77%	8.83%	35	7.13%	10.87%
18	5.84%	8.92%	36	7.23%	11.02%
19	5.90%	9.02%	37	7.34%	11.18%
20	5.97%	9.12%	38	7.45%	11.35%
21	6.03%	9.22%	39	7.57%	11.53%
22	6.10%	9.32%	40	7.67%	11.67%
23	6.17%	9.43%	41	7.73%	11.77%
24	6.24%	9.53%	42	7.76%	11.81%
25	6.31%	9.64%	43	7.77%	11.82%
26	6.39%	9.75%	44	7.75%	11.80%
27	6.46%	9.86%	45	7.71%	11.73%
28	6.54%	9.98%	46	7.64%	11.63%
29	6.62%	10.09%	47	7.54%	11.48%
30	6.70%	10.21%	48	7.80%	11.86%
31	6.78%	10.34%	49+	8.06%	12.27%
32	6.86%	10.46%			

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Appendix A

Member Contribution Rates (Continued)

Safety Tier 4 Members' Contribution Rates based on the June 30, 2014 Actuarial Valuation as a percentage of payroll

Age	Basic Regular First \$350 per month	Basic Regular Over \$350 per month	Age	Basic Regular First \$350 per month	Basic Regular Over \$350 per month
15	5.88%	8.73%	33	7.12%	10.59%
16	5.88%	8.73%	34	7.21%	10.73%
17	5.94%	8.83%	35	7.30%	10.87%
18	6.01%	8.92%	36	7.40%	11.02%
19	6.07%	9.02%	37	7.51%	11.18%
20	6.14%	9.12%	38	7.62%	11.35%
21	6.20%	9.22%	39	7.74%	11.53%
22	6.27%	9.32%	40	7.84%	11.67%
23	6.34%	9.43%	41	7.90%	11.77%
24	6.41%	9.53%	42	7.93%	11.81%
25	6.48%	9.64%	43	7.94%	11.82%
26	6.56%	9.75%	44	7.92%	11.80%
27	6.63%	9.86%	45	7.88%	11.73%
28	6.71%	9.98%	46	7.81%	11.63%
29	6.79%	10.09%	47	7.71%	11.48%
30	6.87%	10.21%	48	7.97%	11.86%
31	6.95%	10.34%	49+	8.23%	12.27%
32	7.03%	10.46%			

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Interest:	7.25% per annum
COLA:	0.00%
Administrative Expenses:	0.17% of payroll added to Basic Regular rates
Mortality:	RP-2000 Combined Healthy Mortality Table projected with Scale AA to 2015, set back one year weighted 80% male and 20% female
Salary Increase:	Inflation (3.25%) + Across-the-Board Increase (0.50%) + Merit (See Exhibit V)

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Appendix A

Member Contribution Rates (Continued)

Safety Tier 5 Members' Contribution Rates based on the June 30, 2014 Actuarial Valuation as a percentage of payroll

	All Eligible Pay*
All members	12.51%
Interest:	7.25% per annum
COLA:	0.00%
Administrative Expenses:	0.17% of payroll added to the rate
Mortality:	RP-2000 Combined Healthy Mortality Table projected with Scale AA to 2015, set back one year weighted 80% male and 20% female
Salary Increase:	Inflation (3.25%) + Across-the-Board Increase (0.50%) + Merit (See Exhibit V)

* It is our understanding that in the determination of pension benefits under the CalPEPRA formulas, the compensation that can be taken into account for 2014 is \$115,064. (For an employer that is not enrolled in Social Security, the maximum amount is \$138,077) (reference Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2014 (reference Section 7522.10(d)).

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Appendix B

Non-Valuation Reserves and Benefits

The Board of Retirement has established a Supplemental COLA Reserve and a Retiree Health Benefit Reserve (BOR) to pay non-vested discretionary purchasing power and additional taxable retiree health benefits, if any. As requested by the Association, we have provided below a table of the anticipated cash payments and determined the sufficiency of current reserves to make those payments. Please note that in determining the sufficiency of the reserves, we assume no new excess earnings transfers will be made by the Board.

Supplemental COLA Benefit^{(1) (2) (3)}

Total Undiscounted Benefits as of June 30, 2014:	\$5,362,286
Reserve ⁽⁴⁾ as of June 30, 2014:	\$1,380,803

It is anticipated that the current reserve will be sufficient to pay the current benefit only through the year 2016-2017 for the current recipients. As shown in the table below, the benefit payment stream is substantially “front loaded” as total payments are expected to decrease as the number of recipients decreases. For example, in the year 2016-2017 only about 84% of the current recipients are expected to be alive and continuing to receive benefits. Furthermore, we assume that no new members will become eligible for this benefit.

Period	Payment (undiscounted)	Period	Payment (undiscounted)
2014 - 2015	\$660,540	2016 - 2017 ⁽⁵⁾	\$125,539
2015 - 2016	594,724		

Retiree Health Benefit (BOR)^{(1) (3)}

Total Undiscounted Benefits as of June 30, 2014:	\$442,884,444
Reserve ⁽⁴⁾ as of June 30, 2014:	-\$777,081

As of June 30, 2014, the Retiree Health Benefit Reserve (BOR) became negative after a restatement of the reserve balance by FCERA. For valuation purposes, Segal has assumed this non-valuation reserve to be no less than \$0 in determining the Valuation Value of Asset as of June 30, 2014 and reduced the valuation reserves by \$777,081. As long as this reserve is zero (or negative), no benefit can be paid out of this reserve.

⁽¹⁾ Assuming no change in the level of benefit provided as of June 30, 2014.

⁽²⁾ Including only those members receiving the benefits as of June 30, 2014.

⁽³⁾ Assuming no interest will be credited and no excess earnings will be transferred to this reserve.

⁽⁴⁾ Based on actuarial value of assets.

⁽⁵⁾ Payment will only be paid for part of the year.

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Appendix C

Amortization Schedule for UAAL

General – Regular Benefits	Source	Initial Amount	Outstanding Balance	Years Remaining	Payment
June 30, 2003	Restart Amortization	N/A*	\$62,069,503	19	\$4,498,860
June 30, 2004	Actuarial Loss/POB Proceeds**	N/A*	(28,123,761)	5	(6,235,768)
June 30, 2005	Actuarial Loss	\$165,807,070	109,443,518	6	20,549,881
June 30, 2006	Actuarial Loss	74,355,835	54,053,219	7	8,839,756
June 30, 2006	Plan Provision Change	333,000	376,071	22	24,605
June 30, 2007	Actuarial Loss	9,736,697	7,666,918	8	1,114,686
June 30, 2007	Assumption Change	48,705,000	38,351,523	8	5,575,890
June 30, 2008	Actuarial Loss	37,435,443	31,324,426	9	4,112,740
June 30, 2009	Actuarial Loss	99,661,060	87,533,214	10	10,507,224
June 30, 2010	Actuarial Loss	40,450,188	36,923,378	11	4,092,698
June 30, 2010	Assumption Change	180,478,000	164,742,311	11	18,260,532
June 30, 2011	Actuarial Loss	33,654,586	31,696,746	12	3,271,009
June 30, 2012	Actuarial Gain	(37,654,021)	(36,340,410)	13	(3,515,644)
June 30, 2013	Actuarial Gain	(55,328,951)	(54,400,947)	14	(4,962,564)
June 30, 2013	Assumption Change	152,395,000	149,838,958	14	13,668,610
June 30, 2014	Actuarial Gain	(35,957,667)	(35,957,667)	15	(3,108,540)
	Total		\$619,197,000		\$76,693,975

* The initial amounts are only available for periods based on prior audit and valuation results reviewed or prepared by Segal.

** It appears that the proceeds from the Pension Obligation Bonds issued by the County were used to offset the actuarial loss in the June 30, 2004 valuation.

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

General – Settlement Benefits	Source	Initial Amount	Outstanding Balance	Years Remaining	Payment
June 30, 2003	Restart Amortization*	N/A**	\$137,345,006	19	\$9,954,903
June 30, 2004	Actuarial Loss/POB Proceeds ***	N/A**	(31,313,042)	5	(6,942,916)
June 30, 2005	Actuarial Loss	\$10,771,055	7,109,602	6	1,334,949
June 30, 2006	Actuarial Loss	8,282,685	6,021,125	7	984,683
June 30, 2007	Actuarial Gain	(162,430)	(127,901)	8	(18,595)
June 30, 2007	Assumption Change	37,063,000	29,184,326	8	4,243,080
June 30, 2008	Actuarial Loss	11,510,769	9,631,734	9	1,264,599
June 30, 2009	Actuarial Loss	17,637,452	15,491,134	10	1,859,509
June 30, 2010	Actuarial Loss	4,210,394	3,843,295	11	426,002
June 30, 2010	Assumption Change	38,322,000	34,980,745	11	3,877,371
June 30, 2011	Actuarial Loss	208,522	196,391	12	20,267
June 30, 2012	Actuarial Gain	(18,843,015)	(18,185,652)	13	(1,759,316)
June 30, 2013	Actuarial Gain	(20,059,381)	(19,722,935)	14	(1,799,166)
June 30, 2013	Assumption Change	41,809,000	41,107,759	14	3,749,932
June 30, 2014	Actuarial Gain	(16,375,093)	<u>(16,375,093)</u>	15	<u>(1,415,627)</u>
	Total		\$199,186,494		\$15,779,675

* The outstanding balance includes the full General Section 8 UAAL and General Section 9 UAAL.

** The initial amounts are only available for periods based on prior audit and valuation results reviewed or prepared by Segal.

*** It appears that the proceeds from the Pension Obligation Bonds issued by the County were used to offset the actuarial losses in the June 30, 2004 valuation.

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Safety – Regular Benefits	Source	Initial Amount	Outstanding Balance	Years Remaining	Payment
June 30, 2003	Restart Amortization	N/A*	\$21,235,229	19	\$1,539,151
June 30, 2004	Actuarial Loss/POB Proceeds **	N/A*	(6,077,424)	5	(1,347,523)
June 30, 2005	Actuarial Loss	\$28,456,160	18,782,928	6	3,526,814
June 30, 2006	Actuarial Loss	36,122,657	26,259,484	7	4,294,424
June 30, 2007	Actuarial Loss	11,440,206	9,008,301	8	1,309,708
June 30, 2007	Assumption Change	18,663,000	14,695,708	8	2,136,594
June 30, 2008	Actuarial Loss	25,279,442	21,152,790	9	2,777,255
June 30, 2009	Actuarial Loss	33,290,245	29,239,125	10	3,509,777
June 30, 2010	Actuarial Loss	7,016,461	6,404,702	11	709,917
June 30, 2010	Assumption Change	44,211,000	40,356,290	11	4,473,212
June 30, 2011	Actuarial Gain	(3,902,219)	(3,675,208)	12	(379,271)
June 30, 2012	Actuarial Gain	(4,727,978)	(4,563,036)	13	(441,437)
June 30, 2013	Actuarial Gain	(17,551,239)	(17,256,861)	14	(1,574,205)
June 30, 2013	Assumption Change	47,490,000	46,693,475	14	4,259,472
June 30, 2014	Actuarial Gain	(11,045,503)	<u>(11,045,503)</u>	15	<u>(954,884)</u>
	Total		\$191,210,000		\$23,839,004

* The initial amounts are only available for periods based on prior audit and valuation results reviewed or prepared by Segal.

** It appears that the proceeds from the Pension Obligation Bonds issued by the County were used to offset the actuarial losses in the June 30, 2004 valuation.

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Safety – Settlement Benefits	Source	Initial Amount	Outstanding Balance	Years Remaining	Payment
June 30, 2003	Restart Amortization*	N/A**	\$23,020,573	19	\$1,668,554
June 30, 2004	Actuarial Loss/POB Proceeds ***	N/A**	(4,977,022)	5	(1,103,535)
June 30, 2005	Actuarial Gain	\$(8,133,004)	(5,368,314)	6	(1,007,992)
June 30, 2006	Actuarial Loss	6,885,605	5,005,515	7	818,592
June 30, 2007	Actuarial Loss	810,988	638,593	8	92,844
June 30, 2007	Assumption Change	4,474,000	3,522,937	8	512,196
June 30, 2008	Actuarial Loss	4,845,166	4,054,234	9	532,301
June 30, 2009	Actuarial Loss	7,849,312	6,894,123	10	827,550
June 30, 2010	Actuarial Loss	1,272,629	1,161,670	11	128,763
June 30, 2010	Assumption Change	6,935,000	6,330,345	11	701,674
June 30, 2011	Actuarial Gain	(433,930)	(408,686)	12	(42,175)
June 30, 2012	Actuarial Gain	(1,098,338)	(1,060,021)	13	(102,549)
June 30, 2013	Actuarial Gain	(3,609,401)	(3,548,862)	14	(323,734)
June 30, 2013	Assumption Change	10,467,000	10,291,442	14	938,806
June 30, 2014	Actuarial Gain	(2,617,021)	<u>(2,617,021)</u>	15	<u>(226,241)</u>
	Total		\$42,939,506		\$3,415,054

* The outstanding balance includes the full Safety Section 8 UAAL and Safety Section 9 UAAL.

** The initial amounts are only available for periods based on prior audit and valuation results reviewed or prepared by Segal.

*** It appears that the proceeds from the Pension Obligation Bonds issued by the County were used to offset the actuarial losses in the June 30, 2004 valuation.

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Total	Source	Initial Amount	Outstanding Balance	Years Remaining	Payment
June 30, 2003	Restart Amortization*	N/A**	\$243,670,311	19	\$17,661,468
June 30, 2004	Actuarial Loss/POB Proceeds ***	N/A**	(70,491,249)	5	(15,629,742)
June 30, 2005	Actuarial Loss	\$196,901,281	129,967,734	6	24,403,652
June 30, 2006	Actuarial Loss	125,646,782	91,339,343	7	14,937,455
June 30, 2006	Plan Provision Change	333,000	376,071	22	24,605
June 30, 2007	Actuarial Loss	21,825,461	17,185,911	8	2,498,643
June 30, 2007	Assumption Change	108,905,000	85,754,494	8	12,467,760
June 30, 2008	Actuarial Loss	79,070,820	66,163,184	9	8,686,895
June 30, 2009	Actuarial Loss	158,438,069	139,157,596	10	16,704,060
June 30, 2010	Actuarial Loss	52,949,672	48,333,045	11	5,357,380
June 30, 2010	Assumption Change	269,946,000	246,409,691	11	27,312,789
June 30, 2011	Actuarial Loss	29,526,959	27,809,243	12	2,869,830
June 30, 2012	Actuarial Gain	(62,323,352)	(60,149,119)	13	(5,818,946)
June 30, 2013	Actuarial Gain	(96,548,872)	(94,929,605)	14	(8,659,669)
June 30, 2013	Assumption Change	252,161,000	247,931,634	14	22,616,820
June 30, 2014	Actuarial Gain	(65,995,284)	<u>(65,995,284)</u>	15	<u>(5,705,292)</u>
	Total		\$1,052,533,000		\$119,727,708

* The outstanding balance includes the full Section 8 UAAL and Section 9 UAAL.

** The initial amounts are only available for periods based on prior audit and valuation results reviewed or prepared by Segal.

*** It appears that the proceeds from the Pension Obligation Bonds issued by the County were used to offset the actuarial losses in the June 30, 2004 valuation.

SECTION 4: Reporting Information for the Fresno County Employees' Retirement Association

Appendix D

Schedule of UAAL and Associated Funded Ratios (Dollar Amounts in Thousands)

	Regular Benefit	Settlement Benefit	Total
AAL	\$3,814,298	\$1,062,456	\$4,876,754
UAAL	\$810,407	\$242,126	\$1,052,533
Funded Ratio	78.8%	77.2%	78.4%

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