

# City of Fresno Employees Retirement System

**Actuarial Valuation and Review  
as of June 30, 2012**

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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*January 2, 2013*

*Board of Retirement  
City of Fresno Employees Retirement System  
2828 Fresno Street, Suite 201  
Fresno, California 93721-1327*

*Dear Board Members:*

*We are pleased to submit this Actuarial Valuation and Review as of June 30, 2012. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2013-2014 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 City of Fresno Employees Retirement System. The census information and financial information on which our calculations were based was prepared by the Retirement System. That assistance is gratefully acknowledged. The actuarial calculations were completed under the supervision of Andy Yeung, ASA, MAAA, FCA, Enrolled Actuary.*

*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.*

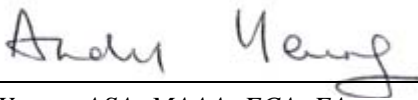
*We are Members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Retirement System.*

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

*Sincerely,*

*THE SEGAL COMPANY*

By:   
\_\_\_\_\_  
*Paul Angelo, FSA, MAAA, FCA, EA  
Senior Vice President and Actuary*

  
\_\_\_\_\_  
*Andy Yeung, ASA, MAAA, FCA, EA  
Vice President and Associate Actuary*

*ST/kek*

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## SECTION 1: Valuation Summary for the City of Fresno Employees Retirement System

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### Purpose

This report has been prepared by The Segal Company to present a valuation of the City of Fresno Employees Retirement System as of June 30, 2012. 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 System, as administered by the Board of Retirement;
- The characteristics of covered active members, DROP participants, inactive vested members, and retired members and beneficiaries as of June 30, 2012, provided by the Retirement System;
- The assets of the System as of June 30, 2012, provided by the Retirement System;
- 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 Retirement System's liabilities, and which, as a percentage of payroll, remain as level as possible for each generation of active members. Annual actuarial valuations measure the progress toward this goal, as well as test the adequacy of the contribution rates.

As of June 30, 2012, there is a surplus (or prefunded actuarial accrued liability) as the System has valuation value of assets that is in excess of the actuarial accrued liability. However, because the valuation value of assets is only 102.2% of the actuarial accrued liability (and so is less than the required 110%), there is no actuarial surplus available to reduce the City's and the members' COLA contributions and to fund new PRSB benefits. The determination of actuarial surplus as of June 30, 2011 and June 30, 2012 is provided in Appendix B of this report.

In preparing this valuation, we have employed generally accepted actuarial methods and assumptions to evaluate the Retirement System's assets, liabilities and future contribution requirements. Our calculations are based upon member data and financial information provided to us by the Retirement System'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.

## SECTION 1: Valuation Summary for the City of Fresno Employees Retirement System

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Please note that the Actuarial Standards Board has adopted a revised Actuarial Standard of Practice (ASOP) No. 4 that provides guidelines that actuaries have to follow when valuing pension liabilities. For a plan such as that offered by the Retirement System that utilizes the actuarial surplus to provide contribution rate offsets and a PRSB benefit, we are required to indicate in the valuation report that the impact of the application of the actuarial surplus on the future financial condition of the plan has not been explicitly measured in the valuation.

The rates calculated in this report may be adopted by the Board for the fiscal year that extends from July 1, 2013 through June 30, 2014.

### Significant Issues in Valuation Year

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

- After the completion of the June 30, 2011 valuation, the Board revisited the allocation period used to determine the funding of the cost-of-living (COLA) component of the members' contribution rate. The Board decided that such funding should be completed before the members' expected participation in DROP. The member COLA contribution rates were restated in our letter dated June 6, 2012. The valuation results as of June 30, 2011 shown in this report have been revised to reflect the results after the restatement. A comparison of the results before and after this restatement are shown on page v of this report.
- The results of this valuation reflect a change from the Projected Unit Credit funding method to the Entry Age Normal funding method, as recommended by Segal and adopted by the Retirement System for the June 30, 2012 valuation. This change was documented in our Review of Actuarial Funding Policy letter dated October 4, 2012.
- Ref: Page 34    ➤ In the June 30, 2011 valuation, the ratio of the valuation value of assets to actuarial accrued liabilities was 116.3%. In this June 30, 2012 valuation, the funding ratio has decreased to 102.2%. The funding ratios as of June 30, 2011 and 2012 if measured using the market value of assets instead of the valuation value of assets are 114.5% and 99.1%, respectively.
- Ref: Page 27    ➤ The Retirement System's prefunded actuarial accrued liability (PAAL) as of June 30, 2011 was \$129.1 million. In this year's valuation, the PAAL has decreased to \$19.4 million on a valuation value of assets basis. The Plan had a net actuarial experience loss of about \$57.3 million. A reconciliation of the System's PAAL is provided in Section 3, Exhibit H.
- Ref: Page 15    ➤ The aggregate employer rate calculated in this valuation has decreased from 12.63% of payroll as of June 30, 2011 to 11.01% of payroll as of June 30, 2012. This is the net result of: (i) the change from Projected Unit Credit to Entry Age Normal funding method, (ii) difference between the actual and the estimated 2012/2013 plan year contribution offset, and (iii) changes in membership demographics and refinements in the calculation of the Normal Cost rate. A reconciliation of the Retirement System's aggregate employer rate is provided in Section 2, Subsection D (see Chart 14).

## SECTION 1: Valuation Summary for the City of Fresno Employees Retirement System

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The aggregate member rate calculated in this valuation has decreased from 8.48% of payroll to 8.46% of payroll. The change in member rate is due to the change in actuarial cost method offset by changes in membership demographics and refinements in the calculation of the Normal Cost rate. A reconciliation of the Retirement System's aggregate member rate is provided in Section 2, Subsection D (see Chart 15). Recent DROP participants are required to continue their employee contributions; however, those contributions are deposited into the members' DROP accounts and therefore not available to fund the value of the retirement benefit earned up to the date of the DROP. Therefore, those contributions that will be deposited into the DROP accounts are disregarded in this valuation.

Ref: Page 6

- As indicated in Section 2, Subsection B (see Chart 7) of this report, the total unrecognized investment loss as of June 30, 2012 is \$27.5 million. This is an increase from last year's amount of \$14.7 million. These investment losses 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 gains that may occur after June 30, 2012. This implies that if the Retirement System earns the assumed net rate of investment return of 8.00% per year on a **market value** basis, it will result in investment losses on the actuarial value of assets in the next few years. So, if the actual market return is equal to the assumed 8.00% rate and all other actuarial assumptions are met, the contribution requirements would increase in each of the next few years if the Retirement System goes from having a surplus to an Unfunded Actuarial Accrued Liability (UAAL).
- The unrecognized investment losses of \$27.5 million represent 3% of the market value of assets. Unless offset by future investment gains or other favorable experience, the recognition of the \$27.5 million market losses is expected to have an impact on the System's future funded ratio and the aggregate employer contributions. This potential impact may be illustrated as follows:
  - If the deferred losses were recognized immediately in the valuation value of assets, the funded percentage would decrease from 102.2% to 99.1%.
  - If the deferred losses were recognized immediately in the valuation value of assets, the aggregate employer contribution rate would increase from 11.01% of payroll to 11.89% of payroll.

Ref: Page 52

- The actuarial surplus (if any) as of June 30, 2012 (see Appendix B) would be adjusted in future valuations to reflect the deferred investment losses mentioned above.
- As we have discussed with the Board in our Review of Actuarial Funding Policy, Section 3-530 of the Fresno Municipal Code would require any UAAL to be amortized over the remaining future working lifetimes of the active members, which is approximately 10 years, when the funded percentage of the Plan falls below 100%. We understand that the Board is currently reviewing the above Section of the Code and seeking changes comparable to those we have recommended in our review.

## SECTION 1: Valuation Summary for the City of Fresno Employees Retirement System

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- The actuarial valuation report as of June 30, 2012 is based on financial information as of that date. Changes in the value of assets subsequent to that date, to the extent that they exist, 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 California Actuarial Advisory Panel (CAAP) has recently adopted a set of model disclosure elements recommended for actuarial valuation reports for public retirement systems in California. Information has been added to this valuation report consistent with the recommendations regarding basic disclosure elements. In particular, we are now including new information regarding measures of plan volatility.
- The Governmental Accounting Standards Board (GASB) recently approved two new Statements affecting the reporting of pension liabilities for accounting purposes. Statement 67 replaces Statement 25 and is for plan reporting. Statement 68 replaces Statement 27 and is for employer reporting. It is important to note that the new GASB rules only redefine pension expense for financial reporting purposes, and do not apply to contribution amounts for actual pension funding purposes. Employers and plans can still develop and adopt funding policies under current practices. Because these new Statements are not effective until the fiscal year ending June 30, 2014 for Plan reporting and the fiscal year ending June 30, 2015 for employer reporting, the financial reporting information in this report continues to be in accordance with Statements 25 and 27.

### Impact of Future Experience on Contribution Rates

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

- 1) difference 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.

**SECTION 1: Valuation Summary for the City of Fresno Employees Retirement System**

**Summary of Key Valuation Results (Dollar amounts in thousands)**

	<b>June 30, 2011 (before restatement of member COLA rates)</b>		<b>June 30, 2011 (after restatement of member COLA rates)</b>	
<b>Employer Contribution Rates:</b>				
	Total Rate	Estimated Annual Amount <sup>(1)</sup>	Total Rate	Estimated Annual Amount <sup>(1)</sup>
Normal Cost Rate	11.37%	\$13,280	11.37%	\$13,280
Surplus Offset	-0.14%	-164	0.00%	0
Contribution Shortfall from Prior Fiscal Year	1.13%	1,320	1.26%	1,472
Required Contributions	12.36%	14,436	12.63%	14,752
<b>Average Member Contribution Rates:</b>				
	Total Rate	Estimated Annual Amount <sup>(2)</sup>	Total Rate	Estimated Annual Amount <sup>(2)</sup>
All Members <sup>(3)</sup>	8.37%	\$8,249	8.48%	\$8,357
<b>Funded Status:</b>				
Actuarial Accrued Liability	\$788,110		\$791,105	
Market Value of Assets (MVA) <sup>(4)</sup>	\$905,486		\$905,486	
Valuation Value of Assets (VVA)	\$920,217		\$920,217	
Funded Percentage on VVA basis	116.8%		116.3%	
Prefunded Actuarial Accrued Liability on VVA basis	\$132,107		\$129,112	
Funded Percentage on MVA basis	114.9%		114.5%	
Prefunded Actuarial Accrued Liability on MVA basis	\$117,376		\$114,381	
<b>Key Economic Assumptions:</b>				
Interest Rate	8.00%		8.00%	
Inflation Rate	3.50%		3.50%	
Across-the-Board Salary Increase	0.50%		0.50%	

(1) Based on projected fiscal year 2013-2014 annual payroll for active non-DROP and DROP members of \$116,799.

(2) Based on projected fiscal year 2013-2014 annual payroll for members not in the DROP of \$98,557.

(3) These are the average rates after applying the surplus (if any) to offset the COLA rates.

(4) Excludes non-valuation reserves.



**SECTION 1: Valuation Summary for the City of Fresno Employees Retirement System**

**Summary of Key Valuation Results (Dollar amounts in thousands)**

	<b>June 30, 2012</b>		<b>June 30, 2011</b>	
<b>Employer Contribution Rates:</b>				
	Total Rate	Estimated Annual Amount <sup>(1)</sup>	Total Rate	Estimated Annual Amount <sup>(1)</sup>
Normal Cost Rate	11.28%	\$13,175	11.37%	\$13,280
Surplus Offset	0.00%	0	0.00%	0
Contribution Shortfall from Prior Fiscal Year	-0.27%	-315	1.26%	1,472
Required Contributions	11.01%	12,860	12.63%	14,752
<b>Average Member Contribution Rates:</b>				
	Total Rate	Estimated Annual Amount <sup>(2)</sup>	Total Rate	Estimated Annual Amount <sup>(2)</sup>
All Members <sup>(3)</sup>	8.46%	\$8,337	8.48%	\$8,357
<b>Funded Status:</b>				
Actuarial Accrued Liability	\$871,958		\$791,105	
Market Value of Assets (MVA) <sup>(4)</sup>	\$863,878		\$905,486	
Valuation Value of Assets (VVA)	\$891,366		\$920,217	
Funded Percentage on VVA basis	102.2%		116.3%	
Prefunded Actuarial Accrued Liability on VVA basis	\$19,408		\$129,112	
Funded Percentage on MVA basis	99.1%		114.5%	
Prefunded/(Unfunded)Actuarial Accrued Liability on MVA basis	\$(8,080)		\$114,381	
<b>Key Economic Assumptions:</b>				
Interest Rate	8.00%		8.00%	
Inflation Rate	3.50%		3.50%	
Across-the-Board Salary Increase	0.50%		0.50%	

(1) Based on projected fiscal year 2013-2014 annual payroll for active non-DROP and DROP members of \$116,799.

(2) Based on projected fiscal year 2013-2014 annual payroll for members not in the DROP of \$98,557.

(3) These are the average rates after applying the surplus (if any) to offset the COLA rates. See Section 4, Appendix A for the basic and COLA rates before the surplus offset.

(4) Excludes non-valuation reserves.

## SECTION 1: Valuation Summary for the City of Fresno Employees Retirement System

### Summary of Key Valuation Demographic and Financial Data

	June 30, 2012	June 30, 2011	Percentage Change
<b>Active Members:</b>			
<b>Non-DROP</b>			
Number of members	1,620	1,739	-6.8%
Average age	47.7	47.2	N/A
Average service	11.5	11.1	N/A
Projected total compensation <sup>(1)</sup>	\$94,766,049	\$101,597,247	-6.7%
Average projected compensation	\$58,498	\$58,423	0.1%
<b>DROP</b>			
Number of members	280	254	10.2%
Average age	59.8	59.8	N/A
Average service	24.4	24.5	N/A
Projected total compensation <sup>(1)</sup>	\$17,540,903	\$15,980,093	9.8%
Average projected compensation	\$62,646	\$62,914	-0.4%
<b>Retired Member and Beneficiaries:</b>			
Number of members:			
Service retired	1,172	1,123	4.4%
Disability retired	138	140	-1.4%
Beneficiaries	362	359	0.8%
Total	1,672	1,622	3.1%
Average age	70.2	70.3	N/A
Average monthly benefit <sup>(2)</sup>	\$1,898	\$1,861	2.0%
<b>Vested Terminated Members:</b>			
Number of vested terminated members <sup>(3)</sup>	221	212	4.2%
Average age	45.9	46.3	N/A
<b>Summary of Financial Data (dollar amounts in thousands):</b>			
Market value of assets <sup>(4)</sup>	\$930,403	\$964,377	-3.5%
Return on market value of assets	-0.59%	23.88%	N/A
Actuarial value of assets	\$957,891	\$979,108	-2.2%
Return on actuarial value of assets	0.74%	2.76%	N/A
Valuation value of assets	\$891,366	\$920,217	-3.1%
Return on valuation value of assets	-0.07%	2.56%	N/A

(1) June 30, 2011 payroll was projected payroll for plan year 2011-2012. June 30, 2012 payroll was projected payroll for plan year 2012-2013.

(2) Excludes supplemental benefits paid from PRSB and benefits derived from DROP account balances.

(3) Includes terminated members due a refund of member contributions.

(4) Includes non-valuation reserves.

**SECTION 2: Valuation Results for the City of Fresno Employees Retirement System**

**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 nine valuations can be seen in this chart.*

**CHART 1**  
**Member Population: 2004 – 2012**

<b>Year Ended June 30</b>	<b>Active Members<sup>(1)</sup></b>	<b>Vested Terminated Members<sup>(2)</sup></b>	<b>Retired Members and Beneficiaries</b>	<b>Ratio of Non-Actives to Actives</b>
2004	2,260	113	1,161	0.56
2005	2,286	127	1,202	0.58
2006	2,319	172	1,256	0.62
2007	2,422	190	1,306	0.62
2008	2,509	195	1,358	0.62
2009	2,490	188	1,400	0.64
2010	2,283	184	1,503	0.74
2011	1,993	212	1,622	0.92
2012	1,900	221	1,672	1.00

<sup>(1)</sup> Includes DROP members.

<sup>(2)</sup> Includes terminated members due a refund of member contributions.

**SECTION 2: Valuation Results for the City of Fresno Employees Retirement System**

**Non-DROP Active Members**

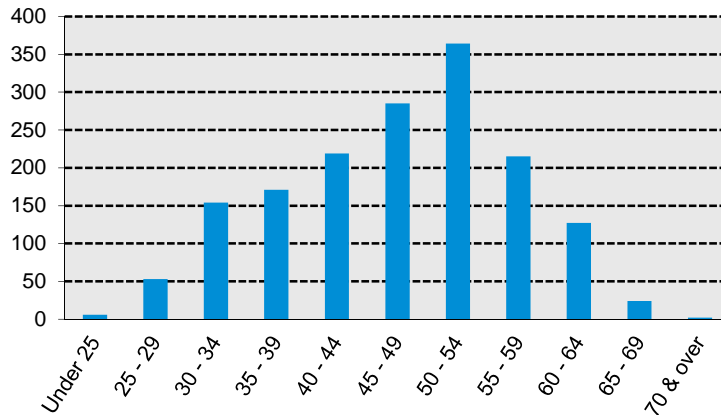
Plan costs are affected by the age, years of service and compensation of active members. In this year's valuation, there were 1,620 non-DROP active members with an average age of 47.7 years, average years of service of 11.5 and average compensation of \$58,498. The 1,739 non-DROP active members in the prior valuation had an average age of 47.2 years, average years of service of 11.1 and average compensation of \$58,423.

**Inactive Members**

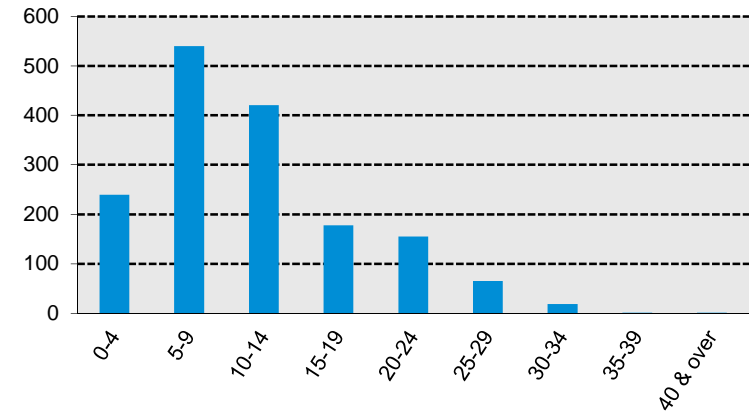
In this year's valuation, there were 221 members with a vested right to a deferred or immediate vested benefit or entitled to a return of their member contributions versus 212 in the prior valuation.

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

**CHART 2**  
**Distribution of Non-DROP Active Members by Age as of June 30, 2012**



**CHART 3**  
**Distribution of Non-DROP Active Members by Years of Service as of June 30, 2012**



**SECTION 2: Valuation Results for the City of Fresno Employees Retirement System**

**DROP Active Members**

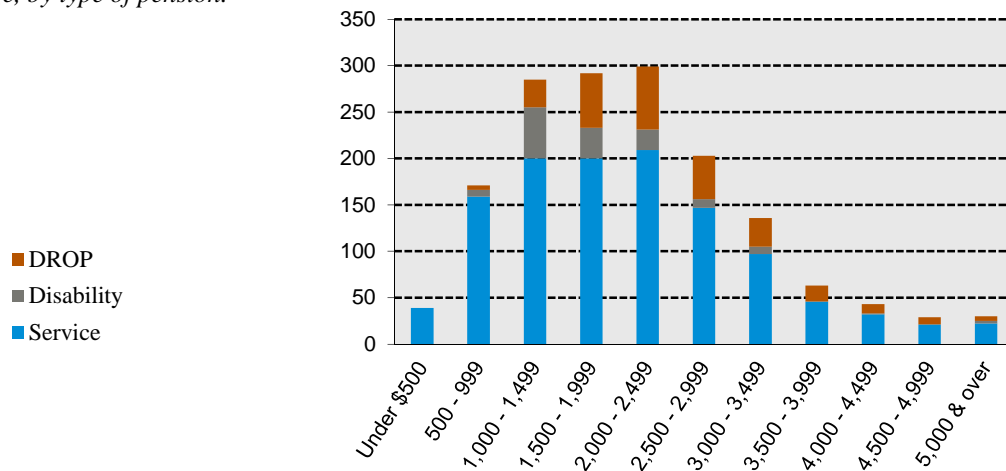
In this year's valuation there were 280 DROP active members with an average age of 59.8 years, average years of service of 24.4, and average compensation of \$62,646. The 254 DROP active members in the prior valuation had an average age of 59.8 years, average years of service of 24.5, and average compensation of \$62,914.

**Retired Members and Beneficiaries**

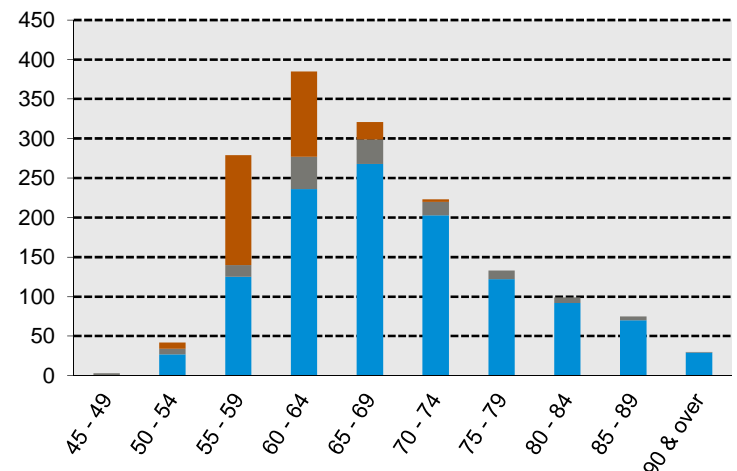
As of June 30, 2012, 1,310 retired members and 362 beneficiaries were receiving total monthly benefits of \$3,172,822. For comparison, in the previous valuation, there were 1,263 retired members and 359 beneficiaries receiving monthly benefits of \$3,017,800.

*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, 2012**



**CHART 5**  
**Distribution of Retired Members (Excl. Beneficiaries) by Type and by Age as of June 30, 2012**



**SECTION 2: Valuation Results for the City of Fresno Employees Retirement System**

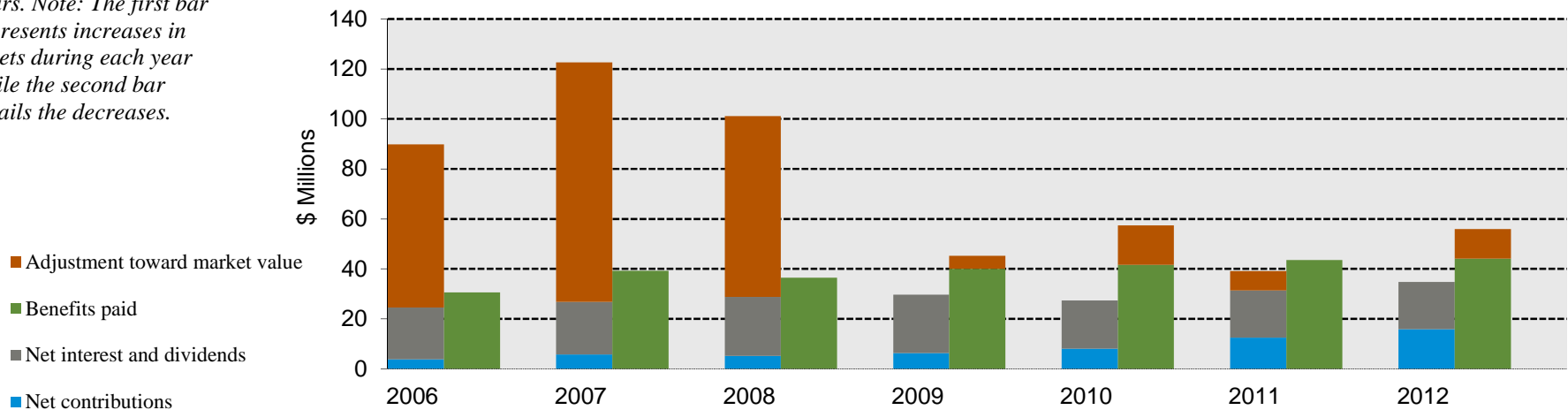
**B. FINANCIAL INFORMATION**

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.

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

**CHART 6**  
**Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended June 30, 2006-2012**



## SECTION 2: Valuation Results for the City of Fresno Employees Retirement System

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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.

**SECTION 2: Valuation Results for the City of Fresno Employees Retirement System**

**CHART 7**

**Determination of Actuarial and Valuation Value of Assets for Year Ended June 30, 2012**

Plan Year Ending June 30	Total Actual Market Return	Expected Market Return	Investment Gain/(Loss)*	Deferred Factor	Deferred Return
2008	\$(68,481,857)	\$86,887,836	\$(155,369,693)	0.0	\$0
2009	(199,694,398)	78,552,531	(278,246,929)	0.2	(55,649,386)
2010	104,511,346	59,302,581	45,208,765	0.4	18,083,506
2011	188,925,406	63,280,879	125,644,527	0.6	75,386,716
2012	(5,620,568)	76,015,992	(81,636,560)	0.8	(65,309,248)

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

1. Total Deferred Return	\$(27,488,412)
2. Net Market Value of Assets	930,402,725
3. Actuarial Value of Assets (Item 2 – Item 1)	\$957,891,137
4. Ratio of Actuarial Value to Market Value	103.0%
5. Non-Valuation Reserves and Other Adjustments	
a. DROP Reserve	67,524,000
b. PRSB Reserve	82,000
c. City Surplus Reserve**	(1,081,000)
d. Total	66,525,000
6. Valuation Value of Assets (Item 3 – Item 5d)	\$891,366,137

\* Administrative expenses are treated as benefit payments and are excluded from the calculation of actual versus expected income.

\*\* The negative City Surplus Reserve is treated as an asset; it represents the City's prior contribution shortfall due to the difference between the actual versus the projected surplus prior to June 30, 2012. This difference is taken into account in developing the contribution rate requirement for 2013-2014. See Step (4) in Table 2 of Appendix B for details.

Deferred return as of June 30, 2012 recognized in each of the next four years:

6/30/2013	\$(37,806,039)
6/30/2014	17,843,346
6/30/2015	8,801,593
6/30/2016	(16,327,312)
	<u>\$(27,488,412)</u>

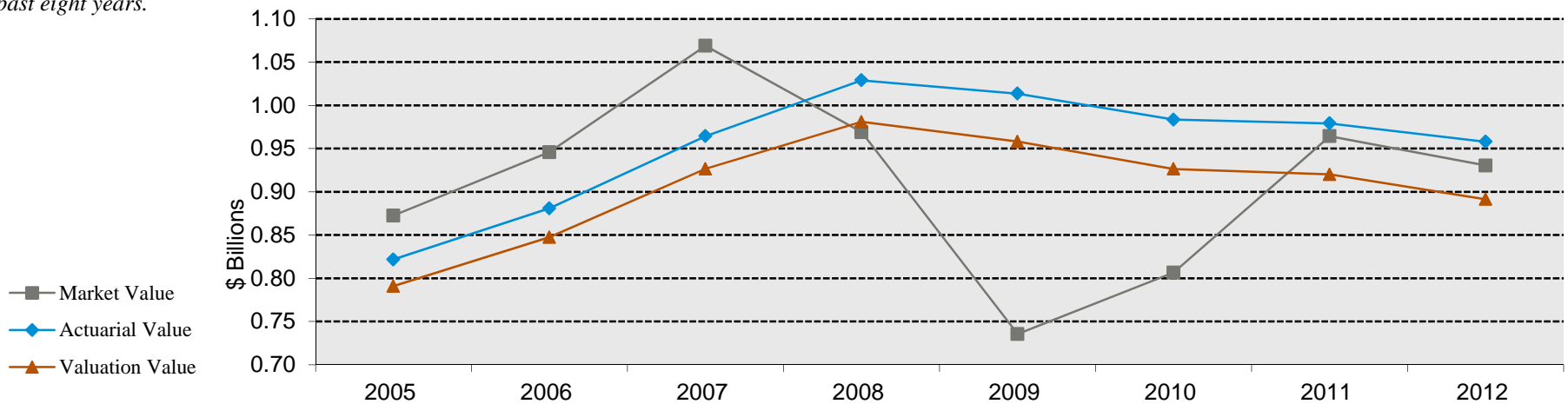


**SECTION 2: Valuation Results for the City of Fresno Employees Retirement System**

The market value, actuarial value, and valuation value of assets are representations of the Retirement System’s financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets, but with less volatility. The valuation value of assets is the actuarial value, excluding any non-valuation reserves. The valuation value of assets is significant because the Retirement System’s liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the prefunded 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 eight years.*

**CHART 8**  
**Market Value, Actuarial Value and Valuation Value of Assets as of June 30, 2005–2012**



## SECTION 2: Valuation Results for the City of Fresno Employees Retirement System

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### 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 loss was \$57.3 million, including a loss of \$73.1 million from investments and a gain of \$15.8 million from all other sources. The net experience variation from individual sources other than investments was 1.8% of the actuarial accrued liability. A discussion of the major components of the actuarial experience is on the following pages.

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

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### CHART 9 Actuarial Experience for Year Ended June 30, 2012

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1. Net gain/(loss) from investments <sup>(1)</sup>	-\$73,125,000
2. Net gain/(loss) from other experience <sup>(2)</sup>	<u>15,802,000</u>
3. Net experience gain/(loss): (1) + (2)	-\$57,323,000

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<sup>(1)</sup> Details in Chart 10.

<sup>(2)</sup> See Section 3, Items (7b) through (7d) in Section 3, Exhibit H.

**SECTION 2: Valuation Results for the City of Fresno Employees Retirement System**

**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 the Retirement System’s investment policy. For valuation purposes, the assumed rate of return on the valuation value of assets was 8.00%. The actual rate of return on a valuation basis for the 2011/2012 plan year was -0.07%.

Since the actual return for the year was less than the assumed return, the Retirement System experienced an actuarial loss during the year ended June 30, 2012 with regard to its investments.

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

**CHART 10**

**Investment Experience for Year Ended June 30, 2012 – Valuation Value, Actuarial Value and Market Value of Assets**

	<b>Valuation Value</b>	<b>Actuarial Value</b>	<b>Market Value</b>
1. Actual return	\$(635,732)	\$7,136,014	\$(5,620,568)
2. Average value of assets	\$906,109,602	\$964,931,729	\$950,199,899
3. Actual rate of return: (1) ÷ (2)	-0.07%	0.74%	-0.59%
4. Assumed rate of return	8.00%	8.00%	8.00%
5. Expected return: (2) x (4)	\$72,488,768	\$77,194,538	\$76,015,992
6. Actuarial gain/(loss): (1) – (5)	<u>\$(73,124,500)</u>	<u>\$(70,058,524)</u>	<u>\$81,636,560</u>

**SECTION 2: Valuation Results for the City of Fresno Employees Retirement System**

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 eight years.

In this valuation, we have continued to apply the 8.00% investment return assumption adopted by the Board for the last actuarial valuation.

**CHART 11**

**Investment Return – Actuarial Value, Valuation Value and Market Value: 2005 – 2012**

Year Ended June 30	Valuation Value Investment Return		Actuarial Value Investment Return		Market Value Investment Return	
	Amount	Percent	Amount	Percent	Amount	Percent
2005	\$67,602,316	9.84%	N/A	N/A	\$83,471,311	10.42%
2006	81,292,494	10.44%	\$85,932,037	10.63%	100,177,718	11.66%
2007	109,598,151	13.17%	116,910,064	13.53%	156,545,863	16.85%
2008	81,711,433	8.95%	96,073,943	10.13%	(68,481,857)	(6.50%)
2009	5,743,642	0.59%	18,308,120	1.81%	(199,694,398)	(20.97%)
2010	(2,390,978)	(0.25%)	3,460,859	0.35%	104,511,346	14.54%
2011	23,379,931	2.56%	26,707,381	2.76%	188,925,406	23.88%
2012	(635,732)	(0.07%)	7,136,014	0.74%	(5,620,568)	(0.59%)
<b>Annualized Average Return</b>		5.53%		5.59%		5.21%

**SECTION 2: Valuation Results for the City of Fresno Employees Retirement System**

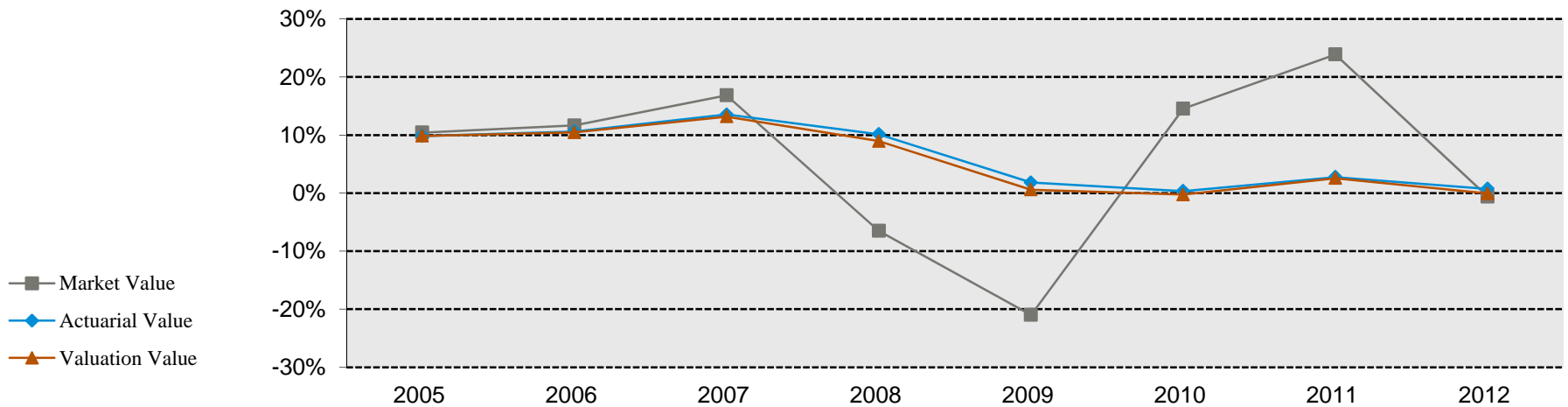
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Subsection B described the actuarial asset valuation method that gradually takes into account fluctuations in the market value rate of return. The effect of this is to stabilize the actuarial rate of return, which contributes to leveling pension plan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

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**CHART 12**  
**Market and Valuation Rates of Return for Years Ended June 30, 2005 - 2012**

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## SECTION 2: Valuation Results for the City of Fresno Employees Retirement System

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### **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,
- salary increases different than assumed,
- DROP experience different than assumed, and
- COLA increases different than assumed.

The net gain from this other experience for the year ended June 30, 2012 amounted to \$15.8 million which is 1.8% of the actuarial accrued liability. See Section 3, Exhibit H for a detailed development of the prefunded actuarial accrued liability.

**SECTION 2: Valuation Results for the City of Fresno Employees Retirement System**

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**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 prefunded actuarial accrued liability) is calculated to remain as a level percentage of future active member payroll (including payroll for new members as they enter the Retirement System) 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 rate of 4.00% (i.e., 3.50% inflation plus 0.50% real across-the-board salary increase).

The recommended employer contributions are provided on Chart 13.

Member Contributions

Provide for an average annuity at age 55 equal to 1/150 of FAS for each of the first 25 years of service and 1/300 for each year in excess of 25 (§3-523).

SECTION 2: Valuation Results for the City of Fresno Employees Retirement System

CHART 13

Recommended Employer Contribution Rates (Dollar Amounts in Thousands)

	June 30, 2012		June 30, 2011	
	<u>Rate</u>	<u>Estimated Annual Amount*</u>	<u>Rate</u>	<u>Estimated Annual Amount*</u>
<b>All Categories Combined</b>				
Normal Cost	11.28%	\$13,175	11.37%	\$13,280
Surplus Offset	0.00%	0	0.00%	0
Contribution Shortfall from prior fiscal year	<u>-0.27%</u>	<u>-315</u>	<u>1.26%</u>	<u>1,472</u>
<b>Total Contribution</b>	<b>11.01%</b>	<b>\$12,860</b>	<b>12.63%</b>	<b>\$14,752</b>

\* Amounts are in thousands and are based on projected fiscal year 2013 – 2014 annual payroll for active non-DROP and DROP members (also in thousands).

**Payroll** \$ 116,799



**SECTION 2: Valuation Results for the City of Fresno Employees Retirement System**

The employer contribution rates as of June 30, 2012 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 14**

**Reconciliation of Recommended Employer Contribution from June 30, 2011 to June 30, 2012 (Dollars in Thousands)**

	Contribution Rate	Estimated Amount*
Recommended Contribution Rate as of June 30, 2011	12.63%	\$14,752
2011/2012 plan year contribution shortfall included in the above rate (payable 2012/2013)	1.26%	\$1,472
Normal Cost Rate as of June 30, 2011 under Projected Unit Credit funding method	11.37%	\$13,280
1. Effect of change from Projected Unit Credit to Entry Age Normal funding cost method	-0.85%	-\$993
2. Effect of higher normal cost due to change in membership demographics and refinements in the calculation of Normal Cost rate	0.76%	\$888
3. Effect of the difference between the actual and the estimated 2012/2013 plan year contribution offset (payable 2013/2014)	<u>-0.27%</u>	<u>-\$315</u>
Recommended Contribution Rate as of June 30, 2012	11.01%	\$12,860

\* Based on projected fiscal year 2013 – 2014 annual payroll of \$116,799 for active non-DROP and DROP members.

**SECTION 2: Valuation Results for the City of Fresno Employees Retirement System**

The member contribution rates as of June 30, 2012 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**  
 The chart below details the changes in the recommended member contribution rate from the prior valuation to the current year’s valuation.

**CHART 15**

**Reconciliation of Recommended Member Contribution from June 30, 2011 to June 30, 2012 (Dollar Amounts in Thousands)**

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

	Contribution Rate	Estimated Amount <sup>(1)</sup>
Average Contribution Rate as of June 30, 2011 <sup>(2)</sup>	8.48%	\$8,357
1. Effect of change from Projected Unit Credit to Entry Age Normal funding method	-0.14%	-\$138
2. Effect of change in membership demographics and refinements in the calculation of Normal Cost rate	<u>0.12%</u>	<u>118</u>
Average Contribution Rate as of June 30, 2012 <sup>(2)</sup>	8.46%	\$8,337

<sup>(1)</sup> Based on projected fiscal year 2013 – 2014 annual payroll for members NOT in the DROP of \$98,557.

<sup>(2)</sup> These are the average rates after applying the surplus to offset the COLA rates. See Section 4, Appendix A for the basic and COLA rates before the surplus offset.

**SECTION 2: Valuation Results for the City of Fresno Employees Retirement System**

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**CHART 16**  
**Breakdown of Normal Cost Rate**

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As requested by the Retirement System, we have provided a breakdown of the Normal Cost to fund each type of benefit.

	<u>June 30, 2012</u>
Service Retirement	15.19%
Vested Deferred Retirement	1.41%
Death-In-Service	0.28%
Disability	0.99%
Contribution Refunds	<u>0.55%</u>
<b>Total Normal Cost</b>	18.42%
Less	
Employee Contributions*	<u>7.14%</u>
Equals	
<b>Net Employer Normal Cost</b>	11.28%

\* The offset for employee contributions is less than the aggregate employee rate because it expresses the employee contribution dollar amount as a percent of projected fiscal year 2013-2014 annual payroll for all active members (non-DROP and DROP) of \$116,799 instead of annual payroll for only active non-DROP members of \$98,557.

**SECTION 2: Valuation Results for the City of Fresno Employees Retirement System**

**E. INFORMATION REQUIRED BY GASB**

Governmental Accounting Standards Board (GASB) reporting information provides standardized information for comparative purposes of governmental pension plans. This information allows a reader of the financial statements to compare the funding status of one governmental plan to another on relatively equal terms.

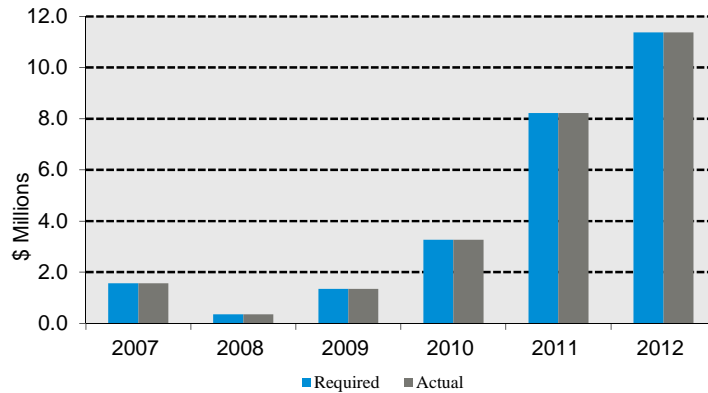
Critical information to GASB is the historical comparison of the GASB required contributions to the actual contributions. This comparison demonstrates whether a plan is being funded on an actuarially sound basis and in accordance with the GASB funding requirements. Chart 17 below presents a graphical representation of this information for the Plan.

The other 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 as calculated under GASB. High ratios indicate a well-funded plan with assets sufficient to pay most benefits. 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.

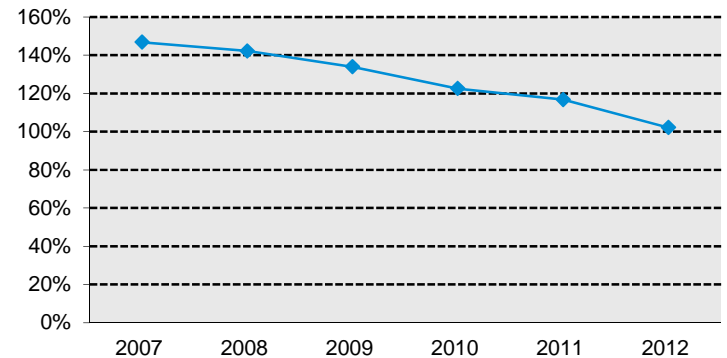
The details regarding the calculations of these values and other GASB numbers may be found in Section 4, Exhibits II, III, and IV.

*These graphs show key GASB factors.*

**CHART 17**  
**Required Versus Actual Contributions**



**CHART 18**  
**Funded Ratio**



**SECTION 2: Valuation Results for the City of Fresno Employees Retirement System**

**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 the Retirement System, the current AVR is about 8.3. This means that a 1% asset gain/(loss) (relative to the assumed investment return) translates to 8.3% of one-year's payroll. Since the Retirement System amortizes actuarial gains and losses over a period of the remaining future working lifetimes of the active members (approximately 10 years), there would be a 1.0% of payroll decrease/(increase) in the required contribution for each 1% asset gain/(loss) if the Retirement System were in an underfunded position.

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 the Retirement System, the current LVR is about 7.8. This is about 6% lower than the AVR. Therefore, we would expect that contribution volatility will decrease over the long-term.

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

**CHART 19**  
**Volatility Ratios for Years Ended June 30, 2008 – 2012**

Year Ended June 30	Asset Volatility Ratio	Liability Volatility Ratio
2008	7.3	5.2
2009	5.3	5.1
2010	6.1	5.8
2011	8.2	6.7
2012	8.3	7.8

**SECTION 3: Supplemental Information for the City of Fresno Employees Retirement System**

**EXHIBIT A**

**Table of Plan Coverage**

<b>Category</b>	<b>Year Ended June 30</b>		<b>Change From Prior Year</b>
	<b>2012</b>	<b>2011</b>	
<b>Active members in valuation</b>			
<b>Non-DROP</b>			
Number	1,620	1,739	-6.8%
Average age	47.7	47.2	N/A
Average service	11.5	11.1	N/A
Projected total compensation	\$94,766,049	\$101,597,247	-6.7%
Projected average compensation	\$58,498	\$58,423	0.1%
Member account balances	\$86,589,757	\$87,567,702	-1.1%
Total active vested members	1,380	1,385	-0.4%
<b>DROP</b>			
Number	280	254	10.2%
Average age	59.8	59.8	N/A
Average service	24.4	24.5	N/A
Projected total compensation	\$17,540,903	\$15,980,093	9.8%
Projected average compensation	\$62,646	\$62,914	-0.4%
<b>Vested terminated members</b>			
Number	221	212	4.2%
Average age	45.9	46.3	N/A
<b>Retired members</b>			
Number in pay status	1,172	1,123	4.4%
Average age	69.4	69.6	N/A
Average monthly benefit <sup>(1)</sup>	\$2,093	\$2,060	1.6%
<b>Disabled members</b>			
Number in pay status	138	140	-1.4%
Average age	66.1	65.4	N/A
Average monthly benefit <sup>(1)</sup>	\$1,827	\$1,805	1.2%
<b>Beneficiaries</b>			
Number in pay status	362	359	0.8%
Average age	74.3	74.3	N/A
Average monthly benefit <sup>(1)</sup>	\$1,292	\$1,257	2.8%

<sup>(1)</sup> Excludes supplemental benefits paid from PRSB and benefits derived from DROP account balances.

**SECTION 3: Supplemental Information for the City of Fresno Employees Retirement System**

**EXHIBIT B**

**Members in Active Service and Projected Average Compensation  
By Age, Years of Service as of June 30, 2012 – Non-DROP Active Members Only\***

Age	Years of Service									
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
<b>Under 25</b>	6	5	1	--	--	--	--	--	--	--
	\$45,988	\$45,100	\$50,431	--	--	--	--	--	--	--
<b>25 - 29</b>	53	30	23	--	--	--	--	--	--	--
	53,792	50,440	58,165	--	--	--	--	--	--	--
<b>30 - 34</b>	154	53	84	16	1	--	--	--	--	--
	54,746	52,975	56,279	\$53,475	\$40,122	--	--	--	--	--
<b>35 - 39</b>	171	32	80	49	10	--	--	--	--	--
	56,033	55,397	55,781	56,416	58,215	--	--	--	--	--
<b>40 - 44</b>	219	26	84	79	26	3	1	--	--	--
	56,689	57,415	56,423	58,072	53,582	\$54,157	\$39,195	--	--	--
<b>45 - 49</b>	285	35	84	71	39	44	12	--	--	--
	59,452	49,131	62,184	58,114	62,095	62,072	60,146	--	--	--
<b>50 - 54</b>	364	35	77	77	40	78	44	13	--	--
	61,328	54,629	64,457	56,596	60,525	62,252	67,609	\$64,524	--	--
<b>55 - 59</b>	215	13	57	78	31	25	6	5	--	--
	60,376	67,223	61,354	57,605	58,375	64,631	61,159	64,843	--	--
<b>60 - 64</b>	127	9	43	44	23	4	1	1	1	1
	58,432	74,621	63,433	53,473	51,064	48,981	89,538	48,687	\$84,929	\$75,305
<b>65 - 69</b>	24	2	7	6	7	1	1	--	--	--
	60,531	58,164	81,368	48,589	51,109	75,161	42,398	--	--	--
<b>70 &amp; over</b>	2	--	--	1	1	--	--	--	--	--
	45,087	--	--	38,175	51,998	--	--	--	--	--
<b>Total</b>	1,620	240	540	421	178	155	65	19	1	1
	\$58,498	\$54,605	\$59,812	\$56,692	\$57,595	\$62,168	\$65,148	\$63,774	\$84,929	\$75,305

\* Excludes 280 active members in DROP with projected average compensation of \$62,646.

**SECTION 3: Supplemental Information for the City of Fresno Employees Retirement System**

**EXHIBIT C**

**Reconciliation of Member Data – June 30, 2011 to June 30, 2012**

	<b>Non-DROP Active Members</b>	<b>DROP Members</b>	<b>Vested Terminated Members</b>	<b>Pensioners</b>	<b>Disableds</b>	<b>Beneficiaries</b>	<b>Total</b>
Number as of June 30, 2011	1,739 <sup>(1)</sup>	254 <sup>(1)</sup>	212	1,123	140	359	3,827
New members	66	0	0	0	0	0	66
Terminations – with vested rights	-33	0	33	0	0	0	0
Contributions refunds	-63	0	-8	0	0	0	-71
DROP Entry	-54	54	0	0	0	0	0
Retirements	-37	-26	-18	81	0	0	0
New disabilities	-1	0	0	-2	3	0	0
Return to work	6	-2	-4	0	0	0	0
Died with or without beneficiary	-3	0	0	-34	-5	3 <sup>(4)</sup>	-39
Data adjustments	0	0	6	4	0	0	10
Number as of June 30, 2012	1,620 <sup>(2)</sup>	280 <sup>(2)</sup>	221 <sup>(3)</sup>	1,172	138	362	3,793

<sup>(1)</sup> *There was a total of 1,993 actives (including non-DROP and DROP members) at the beginning of the plan year.*

<sup>(2)</sup> *There was a total of 1,900 actives (including non-DROP and DROP members) at the end of the plan year.*

<sup>(3)</sup> *Based on vested terminated members whose records have been processed by the System at the time membership data was provided for this valuation. We understand that there is a small group of terminated members who are either entitled to a refund or deferred retirement benefit but their records have not been completely processed by the System. Those members will be included in the liability calculation in the next valuation.*

<sup>(4)</sup> *This is the net increase in the number of beneficiaries after subtracting the number of beneficiaries who died during the year.*



**SECTION 3: Supplemental Information for the City of Fresno Employees Retirement System**

**EXHIBIT D**

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

	<b>Year Ended June 30, 2012</b>	<b>Year Ended June 30, 2011</b>
<b>Contribution income:</b>		
Employer contributions	\$11,373,870	\$8,214,569
Employee contributions	5,507,139	5,275,219
Less administrative expenses	<u>-1,087,210</u>	<u>-1,029,440</u>
Net contribution income	\$15,793,799	\$12,460,348
<b>Investment income:</b>		
Interest, dividends and other income	\$23,398,531	\$23,804,668
Adjustment toward market value	-11,821,705	7,800,553
Less investment fees	<u>-4,440,812</u>	<u>-4,897,840</u>
Net investment income	<u>7,136,014</u>	<u>26,707,381</u>
<b>Total income available for benefits</b>	<b>\$22,929,813</b>	<b>\$39,167,729</b>
<b>Less benefit payments:</b>		
Benefit payments	-\$42,695,972	-\$39,900,410
Post retirement supplemental benefits	-137,746	-1,587,450
Refunds of contributions	<u>-1,313,292</u>	<u>-2,092,260</u>
Net benefit payments	-\$44,147,010	-\$43,580,120
<b>Change in reserve for future benefits</b>	<b>-\$21,217,197</b>	<b>-\$4,412,391</b>

**SECTION 3: Supplemental Information for the City of Fresno Employees Retirement System**

**EXHIBIT E**

**Summary Statement of Assets**

	Year Ended June 30, 2012	Year Ended June 30, 2011
<b>Cash equivalents</b>	\$1,099,451	\$1,303,391
<b>Accounts receivable:</b>		
Receivables for investments sold	\$35,784,735	\$9,180,107
Interest and dividends	3,460,076	3,324,085
Other receivables	<u>2,137,640</u>	<u>3,900,469</u>
Total accounts receivable	41,382,451	16,404,661
<b>Investments:</b>		
Domestic and international equity	\$494,655,236	\$540,932,903
Government and corporate bonds	265,279,314	271,713,812
Real estate	102,835,465	92,317,681
Emerging market equity	34,756,051	42,596,639
Collateral held for securities lent	113,875,862	150,723,905
Other investments	<u>29,392,078</u>	<u>25,718,034</u>
Total investments at market value	<u>1,040,794,006</u>	<u>1,124,002,974</u>
<b>Total assets</b>	\$1,083,275,908	\$1,141,711,026
<b>Less accounts payable:</b>		
Collateral held for securities lent	-\$113,875,862	-\$150,723,905
Payable for investments and foreign currency purchased	-37,977,600	-25,540,568
Other liabilities	<u>-1,019,721</u>	<u>-1,070,049</u>
Total accounts payable	-\$152,873,183	-\$177,334,522
<b>Net assets at market value</b>	<u>\$930,402,725</u>	<u>\$964,376,504</u>
<b>Net assets at actuarial value</b>	<u>\$957,891,137</u>	<u>\$979,108,334</u>
<b>Net assets at valuation value</b>	<u>\$891,366,137</u>	<u>\$920,217,334</u>

**SECTION 3: Supplemental Information for the City of Fresno Employees Retirement System**

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**EXHIBIT F**

**Actuarial Balance Sheet**

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An overview of the System’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 System 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 System, 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)**

Assets	<u>Total</u>
1. Total valuation assets	\$891,366
2. Present value of future member normal cost	53,331
3. Present value of future employer normal cost	90,392
4. Unfunded/(prefunded) actuarial accrued liability	-19,408
5. Total current and future assets	<u>\$1,015,681</u>
Liabilities	
6. Present value of benefits already granted, excludes current active DROP	\$443,694
7. Present value of benefits for current active DROP	132,339
8. Present value of benefits to be granted	439,648
9. Total liabilities	<u>\$1,015,681</u>

**SECTION 3: Supplemental Information for the City of Fresno Employees Retirement System**

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**EXHIBIT G**

**Summary of Reported Asset Information as of June 30, 2012**

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	<b>Reserves\$(000)</b>
Employer Advance/Retired Reserves	\$765,298
Active Member Reserves	98,580
DROP Reserve <sup>(1)</sup>	67,524
Reserve for PRSB <sup>(1)</sup>	82
Reserve for City Surplus <sup>(1),(2)</sup>	(1,081)
Net Assets Held in Trust for Benefits	<u>\$930,403</u>

<sup>(1)</sup> *Non-valuation reserve*

<sup>(2)</sup> *The negative City Surplus Reserve is treated as an asset; it represents the City's prior contribution shortfall due to the difference between the actual versus the projected surplus prior to June 30, 2012. This difference is taken into account in developing the contribution rate requirement for 2013-2014.*

**SECTION 3: Supplemental Information for the City of Fresno Employees Retirement System**

**EXHIBIT H**

**Development of Unfunded/(Prefunded) Actuarial Accrued Liability as of June 30, 2012**

		(Dollar amounts in Thousands)
1	a. Unfunded/(Prefunded) actuarial accrued liability at beginning of year	-\$129,112
	b. Change in actuarial accrued liability from Projected Unit Credit to Entry Age Normal funding method	52,051
2	Gross Normal Cost at middle of year	24,264
3	Reduction in Normal Cost due to change in actuarial cost method	-1,138
4	Actual employer and member contributions	-16,881
5	Interest (whole year on (1a) and (1b) plus half year on (2) + (3) + (4))	<u>-5,915</u>
6	Expected unfunded/(prefunded) actuarial accrued liability at end of year	-\$76,731
7	Actuarial (gain)/loss due to all changes:	
	<u>Experience (gain)/loss</u>	
	a. Loss from investment	\$73,125
	b. Lower than expected COLA benefit increases for continuing retirees and DROP participants	-1,253
	c. Lower than expected salary increases	-12,547
	d. Other experience (gain)/loss	<u>-2,002</u>
	e. Subtotal	\$57,323
7	Actual unfunded/(prefunded) actuarial accrued liability at end of year (6) + (7e)	-\$19,408

### SECTION 3: Supplemental Information for the City of Fresno Employees Retirement System

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#### EXHIBIT I

#### Section 415 Limitations

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

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

In particular, Section 415(b) of the IRC limits the maximum annual benefit payable at the Normal Retirement Age to a dollar limit indexed for inflation. That limit is \$200,000 for 2012 and \$205,000 for 2013. 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.

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 City of Fresno Employees Retirement System

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#### EXHIBIT J

#### Definitions of Pension Terms

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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 net, in this case, of investment and administrative expenses.
- (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 (Prefunded) 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 prefunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.

**SECTION 3: Supplemental Information for the City of Fresno Employees Retirement System**

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

Payments made over a period of years equal in value to the Plan's unfunded or prefunded 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 actual market rate of return to avoid significant swings in the value of assets from one year to the next.



**SECTION 4: Reporting Information for the City of Fresno Employees Retirement System**

**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 362 beneficiaries in pay status)		1,672
2. Members inactive during year ended June 30, 2012 with vested rights		221
3. Members active during the year ended June 30, 2012		1,900
DROP members	280	
Fully vested non-DROP members	1,380	
Not vested	240	

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

**Assets**

1. Valuation value of assets (\$930,403 at market value <sup>(1)</sup> as reported by the Retirement System and \$957,891 at actuarial value <sup>(1)</sup> )		\$891,366
2. Present value of future normal costs		
Employee	\$53,331	
Employer	<u>90,392</u>	
Total		\$143,723
3. Prefunded actuarial accrued liability		<u>-19,408</u>
4. Present value of current and future assets		\$1,015,681

**Liabilities**

5. Present value of future benefits		
Retired members and beneficiaries	\$443,694	
Inactive members with vested rights	33,185	
DROP members	132,339	
Active non-DROP members	<u>406,463</u>	
Total		\$1,015,681

<sup>(1)</sup> Includes non-valuation reserves.

**SECTION 4: Reporting Information for the City of Fresno Employees Retirement System**

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**EXHIBIT I (continued)**

**Summary of Actuarial Valuation Results**

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	<b>Dollar Amount</b>	<b>% of Payroll<sup>(1)</sup></b>
The determination of the recommended contribution is as follows (amounts in 000s):		
1. Total normal cost	\$21,512	18.42%
2. Expected employee contributions	<u>-8,337</u>	<u>-7.14%</u>
3. Employer normal cost: (1) + (2)	\$13,175	11.28%
4. Contribution surplus from prior year	<u>-315</u>	<u>-0.27</u>
5. Total recommended employer contributions: (3) + (4)	\$12,860	11.01%
6. Projected payroll <sup>(1)</sup>	\$116,799	

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<sup>(1)</sup> Based on projected fiscal year 2013 – 2014 annual payroll for active non-DROP and DROP members shown in (6).

**SECTION 4: Reporting Information for the City of Fresno Employees Retirement System**

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**EXHIBIT II**

**Supplementary Information Required by GASB – Schedule of Employer Contributions**

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<b>Plan Year Ended June 30</b>	<b>Annual Required Contributions</b>	<b>Actual Contributions</b>	<b>Percentage Contributed</b>
2007	\$1,566,215	\$1,566,215	100.0%
2008	354,894	354,894	100.0%
2009	1,345,274	1,345,274	100.0%
2010	3,267,115	3,267,115	100.0%
2011	8,214,569	8,214,569	100.0%
2012	11,373,870	11,373,870	100.0%

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**SECTION 4: Reporting Information for the City of Fresno Employees Retirement System**

**EXHIBIT III**

**Supplementary Information Required by GASB – Schedule of Funding Progress (Dollar Amounts in Thousands)**

<b>Actuarial Valuation Date</b>	<b>Valuation Value of Assets (a)</b>	<b>Actuarial Accrued Liability (AAL) (b)</b>	<b>Prefunded AAL (a) – (b)</b>	<b>Funded Ratio (%) (a) / (b)</b>	<b>Covered Payroll (c)</b>	<b>Prefunded AAL as a Percentage of Covered Payroll (%) [(a) – (b)] / (c)</b>
6/30/2007	\$926,525	\$631,305	\$295,220	146.8	\$122,232	241.5
6/30/2008	980,961	689,833	291,128	142.2	133,110	218.7
6/30/2009	958,032	715,250	242,782	133.9	139,274	174.3
6/30/2010	926,370	756,258	170,112	122.5	131,224	129.6
6/30/2011	920,217	791,105	129,112	116.3	117,577	109.8
6/30/2012	891,366	871,958	19,408	102.2	112,307	17.3

**SECTION 4: Reporting Information for the City of Fresno Employees Retirement System**

**EXHIBIT IV**

**Supplementary Information Required by GASB**

<b>Valuation date</b>	June 30, 2012
<b>Actuarial cost method</b>	Entry Age Normal Actuarial Cost Method
<b>Amortization method</b>	Level percent of payroll for total Unfunded Actuarial Accrued Liability or Prefunded Actuarial Accrued Liability
<b>Remaining amortization period</b>	15 years open (non-declining) for all Prefunded Actuarial Accrued Liability and future working lifetimes of active members (about 10 years) for all Unfunded Actuarial Accrued Liability. The amortization policy is currently under review by the Board.
<b>Asset valuation method</b>	The Actuarial Value of Assets is determined by phasing in any difference between actual and expected return on market value of assets over 5 years. The Valuation Value of Assets is the Actuarial Value of Assets reduced by the value of the non-valuation reserves (i.e., DROP Reserve and PRSB Reserve).
<b>Actuarial assumptions:</b>	
Investment rate of return	8.00%
Inflation rate	3.50%
Real across-the-board salary increase	0.50%
Projected salary increases*	4.60% to 12.50%
Cost of living adjustments	3.50% of retirement income
<b>Plan membership:</b>	
Retired members and beneficiaries receiving benefits	1,672
Terminated members entitled to, but not yet receiving benefits	221
DROP members	280
Active non-DROP members	<u>1,620</u>
Total	3,793

\* Includes inflation at 3.50% plus real across-the-board salary increase of 0.50% plus merit and promotion increases. See Exhibit V for these increases.

**SECTION 4: Reporting Information for the City of Fresno Employees Retirement System**

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**EXHIBIT V**

**Actuarial Assumptions and Actuarial Cost Method**

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**Post – Retirement Mortality Rates:**

*Healthy:* RP-2000 Combined Healthy Mortality Table (separate tables for males and females) set back two years.

*Disabled:* RP-2000 Combined Health Mortality Table (separate tables for males and females) set forward four years.

The tables shown above were determined to contain sufficient provision appropriate to reasonably reflect future mortality, based on a review of mortality experience as of the measurement date.

*Employee Contribution Rates  
and Optional Benefits:*

For healthy members: RP-2000 Combined Healthy Mortality Table set back two years weighted 65% male and 35% female.

For beneficiaries: RP-2000 Combined Healthy Mortality Table set back two years weighted 35% male and 65% female.

For disabled members: RP-2000 Combined Healthy Mortality Table set forward four years weighted 65% male and 35% female.

**SECTION 4: Reporting Information for the City of Fresno Employees Retirement System**

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**Termination Rates Before Retirement:**

Age	Rate (%)	
	Mortality	
	Male	Female
25	0.04	0.02
30	0.04	0.02
35	0.06	0.04
40	0.10	0.06
45	0.13	0.09
50	0.19	0.14
55	0.29	0.22
60	0.53	0.39
65	1.00	0.76

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

**SECTION 4: Reporting Information for the City of Fresno Employees Retirement System**

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

<b>Rate (%)</b>	
<b>Age</b>	<b>Disability</b>
20	0.00
25	0.00
30	0.01
35	0.06
40	0.22
45	0.42
50	0.59
55	0.77
60	0.94

All disabilities are assumed to be non-service connected.



**SECTION 4: Reporting Information for the City of Fresno Employees Retirement System**

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

Age	Rate (%)						
	Withdrawal (Refund of Contributions)						
	0 – 1 Years	1 – 2 Years	2 – 3 Years	3 – 4 Years	4 – 5 Years	5 – 9 Years	10+ Years
20	12.00	8.00	6.00	5.00	3.50	4.50	3.00
25	12.00	8.00	6.00	5.00	3.50	4.50	3.00
30	12.00	8.00	6.00	5.00	3.50	3.90	3.00
35	12.00	8.00	6.00	5.00	3.50	3.20	2.70
40	12.00	8.00	6.00	5.00	3.50	2.70	1.90
45	12.00	8.00	6.00	5.00	3.50	2.20	1.35
50	12.00	8.00	6.00	5.00	3.50	1.70	0.95
55	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**SECTION 4: Reporting Information for the City of Fresno Employees Retirement System**

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

**Vested Termination (Deferred Vested Benefit)**

<u>Age</u>	<u>Rate (%)</u>
20	2.00
25	2.00
30	2.00
35	2.00
40	2.00
45	2.00
50	2.00
55	0.00
60	0.00

**SECTION 4: Reporting Information for the City of Fresno Employees Retirement System**

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**Retirement Rates:**

<u>Age</u>	<u>Rate (%)</u>
50	1.00
51	1.00
52	1.00
53	1.00
54	2.00
55	6.00
56	6.00
57	6.00
58	6.00
59	6.00
60	8.00
61	10.00
62	10.00
63	10.00
64	15.00
65	20.00
66	20.00
67	20.00
68	40.00
69	50.00
70	100.00

<u>DROP Assumptions:</u>	<u>Male and Female</u>
First Year Eligible	35%
Second Year Eligible	15%
Third Year Eligible	10%
Fourth Year Eligible	10%
Fifth Year Eligible	10%
Thereafter	0%

Members are assumed to remain in DROP 6 years

**SECTION 4: Reporting Information for the City of Fresno Employees Retirement System**

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

For current deferred vested members, the retirement assumption is age 56.  
We assume that no future deferred vested members will continue to work for a reciprocal employer.

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**Future Benefit Accruals:**

1.0 year of service per year.

**Unknown Data for Members:**

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

**Inclusion of Deferred Vested  
Members:**

All deferred vested members are included in the valuation.

**Percent Married:**

80% of male members; 60% of female members.

**Age of Spouse:**

Wives are 4 years younger than their husbands.

**Net Investment Return:**

8.00%, net of administration and investment expenses.

**Employee Contribution  
Crediting Rate:**

8.00%, assumed in the valuation.

**Consumer Price Index:**

Increase of 3.50% per year, retiree COLA increases due to CPI are limited to maximum at 3.50% per year.

**SECTION 4: Reporting Information for the City of Fresno Employees Retirement System**

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**Salary Increases:**

<u>Annual Rate of Compensation Increase</u>	
Inflation: 3.50% per year; plus 0.50% across-the-board salary increase; plus the following Merit and Promotion increases based on completed years of service.	
<u>Years of Service</u>	<u>Annual Increase</u>
0	8.50%
1	6.50%
2	5.00%
3	4.00%
4	3.25%
5	2.25%
6	1.25%
7	1.00%
8	0.90%
9+	0.60%

---

<b>Actuarial Value of Assets:</b>	The Actuarial Value of Assets is determined by phasing in any difference between actual market return and expected return on market value over 5 years.
<b>Valuation Value of Assets:</b>	The Actuarial Value of Assets reduced by the value of the non-valuation reserves.
<b>Actuarial Cost Method:</b>	Entry Age Normal Actuarial Cost Method. Entry age is the age at the member’s hire date. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are based on costs allocated as a level percentage of compensation, as if the current benefit formulas have always been in effect (i.e., “replacement life”).
<b>Change in Actuarial Methods:</b>	Based on the Review of Actuarial Funding Policy, the following method was changed. Previously, the method was as follows:
<b>Actuarial Cost Method:</b>	Projected Unit Credit Actuarial Cost Method. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by service.

**SECTION 4: Reporting Information for the City of Fresno Employees Retirement System**

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**EXHIBIT VI**

**Summary of Plan Provisions**

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

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<b>Membership Eligibility:</b>	Permanent full-time employees except sworn Fire and Police personnel.
<b>Final Compensation for Benefit Determination:</b>	Highest average consecutive thirty-six months of compensation earnable calculated using the rate of pay in effect at the time of the retirement (§3-501).
<b>Service:</b>	Years of service (Yrs).
<b>Service Retirement Eligibility:</b>	Age 50 with 5 years of service (§3-540).

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**SECTION 4: Reporting Information for the City of Fresno Employees Retirement System**

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**Service Retirement (Continued):**

**Benefit Formula Per Year of Service**

2% times each of first 25 years of service plus 1% for any years of service in excess of 25, multiplied by the following factor at retirement age (§3-541):

<u>Age</u>	<u>Factor</u>	<u>Age</u>	<u>Factor</u>
55	1.00	61	1.14
56	1.02	62	1.18
57	1.04	63	1.22
58	1.06	64	1.26
59	1.08	65	1.30
60	1.10	65+	Add 0.01 each quarter year after age 65

Effective January 28, 2008, members may retire at age 50 with a reduced early retirement benefit. The reduced early retirement benefit is calculated to be actuarially equivalent to the service retirement benefit payable at age 55.

**Deferred Retirement  
Option Program (DROP):**

*Eligibility*

Same as Service Retirement.

*Benefits under DROP*

DROP benefits (calculated using age, service, and salary at the commencement date of participation in DROP) will be credited to a DROP account with interest at rates determined by the Board. Members will no longer be required to make member contributions. Members may participate in DROP for up to ten years (§3-566).

**SECTION 4: Reporting Information for the City of Fresno Employees Retirement System**

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**Ordinary or Service Connected Disability:**

<i>Eligibility</i>	Ten years of service (§3-546).
<i>Benefit Formula</i>	Greater of 1.8% * FAS * Yrs, 33.33% of FAS, or Service Retirement benefit (§3-547).

---

**Pre-Retirement Death:**

*All Members*

<i>Eligibility</i>	None.
<i>Benefit</i>	Refund of employee contributions with interest, plus one month of final compensation for each year of service, to a maximum of six month's compensation (§3-537).

*Vested Members*

<i>A1. Eligibility</i>	At least five years of service but ineligible for Service Retirement at death (§3-552).
<i>B1. Benefit</i>	50% of Service Retirement Benefit as if the member were age 55 based on years of service at death (§3-552).
	OR
<i>A2. Eligibility</i>	Eligible for Service Retirement.
<i>B2. Benefit</i>	50% of Service Retirement Benefit based on benefit due on member's date of death (§3-552).



**SECTION 4: Reporting Information for the City of Fresno Employees Retirement System**

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**Death After Retirement:**

*All Members*

*Service or*

*Disability Retirement*

50% of member's unmodified allowance continued to eligible spouse/domestic partner (§3-550).

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**Withdrawal Benefits:**

*Less than Five Years of Service*

Refund of accumulated employee contributions with interest.

*Five or More Years of Service*

If contributions left on deposit, entitled to earned benefits commencing at any time after eligible to retire (§3-535).

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**Post-retirement**

**Cost-of-Living Benefits:**

Future changes based on Consumer Price Index to a maximum of 5% per year (§3-553).

**SECTION 4: Reporting Information for the City of Fresno Employees Retirement System**

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<b>Member Contributions:</b>	Please refer to Appendix A for specific rates. Provide for an average annuity at age 55 equal to 1/150 of FAS for each of the first 25 years of service and 1/300 for each year in excess of 25 (§3-523).
<b>City Contributions:</b>	The Prefunded Actuarial Accrued Liability is amortized over an open non-declining 15-year period. The Unfunded Actuarial Accrued Liability is amortized over the future working lifetimes of active members (about 10 years). The amortization policy is currently under review by the Board.
<b>Post Retirement Supplemental Benefits (PRSB):</b>	PRSB may be paid to retired DROP participants, eligible retirees, and beneficiaries (§3-567). This benefit has been excluded from this valuation.

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

**SECTION 4: Reporting Information for the City of Fresno Employees Retirement System**

**Appendix A  
Member Contribution Rates**

Breakdown of member rate between basic and COLA calculated in the June 30, 2012 and June 30, 2011 valuation:

	June 30, 2012 Actuarial Valuation							June 30, 2011 Actuarial Valuation								
	BASIC		COLA, Before Surplus Offset		Surplus Offset		TOTAL	BASIC		COLA, Before Surplus Offset		Surplus Offset		TOTAL		
	Rate	Estimated Annual Amt*	Rate	Estimated Annual Amt*	Rate	Estimated Annual Amt*	Rate	Estimated Annual Amt*	Rate	Estimated Annual Amt*	Rate	Estimated Annual Amt*	Rate	Estimated Annual Amt*		
All Members	5.51%	\$5,430	2.95%	\$2,907	0.00%	\$0	8.46%	\$8,337	5.51%	\$5,430	2.97%	\$2,927	0.00%	\$0	8.48%	\$8,357

\* Amounts are in thousands and are based on the following projected fiscal year 2013 – 2014 annual payroll for members NOT in the DROP (also in thousands):

Payroll (excluding DROP members)                      \$98,557

**SECTION 4: Reporting Information for the City of Fresno Employees Retirement System**

**Appendix A**

**Member Contribution Rates (Continued)**

**Members' Contribution Rates based on the June 30, 2012  
Actuarial Valuation as a percentage of payroll**

Entry Age	Basic	COLA	Surplus Offset	Total
16	3.07%	1.64%	0.00%	4.71%
17	3.17%	1.69%	0.00%	4.86%
18	3.26%	1.75%	0.00%	5.01%
19	3.36%	1.80%	0.00%	5.16%
20	3.47%	1.86%	0.00%	5.33%
21	3.58%	1.92%	0.00%	5.50%
22	3.70%	1.98%	0.00%	5.68%
23	3.82%	2.04%	0.00%	5.86%
24	3.95%	2.11%	0.00%	6.06%
25	4.09%	2.19%	0.00%	6.28%
26	4.23%	2.26%	0.00%	6.49%
27	4.39%	2.35%	0.00%	6.74%
28	4.55%	2.43%	0.00%	6.98%
29	4.72%	2.53%	0.00%	7.25%
30	4.91%	2.62%	0.00%	7.53%
31	5.00%	2.68%	0.00%	7.68%
32	5.10%	2.73%	0.00%	7.83%
33	5.20%	2.78%	0.00%	7.98%
34	5.30%	2.83%	0.00%	8.13%
35	5.40%	2.89%	0.00%	8.29%
36	5.51%	2.95%	0.00%	8.46%
37	5.62%	3.00%	0.00%	8.62%
38	5.73%	3.06%	0.00%	8.79%
39	5.84%	3.12%	0.00%	8.96%
40	5.96%	3.19%	0.00%	9.15%

**SECTION 4: Reporting Information for the City of Fresno Employees Retirement System**

**Appendix A**

**Member Contribution Rates (Continued)**

Entry Age	Basic	COLA	Surplus Offset	Total
41	6.08%	3.25%	0.00%	9.33%
42	6.21%	3.32%	0.00%	9.53%
43	6.35%	3.39%	0.00%	9.74%
44	6.49%	3.47%	0.00%	9.96%
45	6.64%	3.55%	0.00%	10.19%
46	6.79%	3.63%	0.00%	10.42%
47	6.94%	3.71%	0.00%	10.65%
48	7.10%	3.80%	0.00%	10.90%
49	7.21%	3.86%	0.00%	11.07%
50	7.28%	3.89%	0.00%	11.17%
51	7.32%	3.92%	0.00%	11.24%
52	7.32%	3.92%	0.00%	11.24%
53	7.26%	3.88%	0.00%	11.14%
54	7.12%	3.81%	0.00%	10.93%

Interest: 8.00% per annum  
Mortality: RP-2000 Combined Healthy Mortality Table set back two years weighted 65% male and 35% female  
Salary Increase: See Exhibit V in Section 4  
COLA: 3.50% per annum  
Non-Refundability Factor: 96.56%

**SECTION 4: Reporting Information for the City of Fresno Employees Retirement System**

**Appendix B  
Allocation of Actuarial Surplus**

	June 30	
	2012	2011
<b>Table 1: Calculation of Actuarial Surplus</b>		
(1) Valuation Value of Assets	\$891,366,137	\$920,217,334
(2) Actuarial Accrued Liability	871,958,000	791,105,000
(3) Surplus: (1) – (2)	19,408,137	129,112,334
(4) Contingency Reserve: 10% of (2), not more than (3)	19,408,137	79,110,500
(5) Actuarial Surplus: (3) – (4)	0	50,001,834

*There is no Actuarial Surplus available for distribution in the June 30, 2012 valuation.*

**SECTION 4: Reporting Information for the City of Fresno Employees Retirement System**

**Appendix B (continued)**

**Allocation of Actuarial Surplus**

Table 2: City Contribution Requirements	Fiscal Year 2013-2014			Fiscal Year 2012-2013		
	Basic	COLA	Total	Basic	COLA	Total
(1) City Normal Cost Rate	8.63%	2.65%	11.28%	8.75%	2.62%	11.37%
(2) Projected Annual Payroll	\$116,799,000	\$116,799,000	\$116,799,000	\$112,307,000	\$112,307,000	\$112,307,000
(3) City Allocation of Fiscal Year Distributable Actuarial Surplus (Table 3)	0	0	0	0	0	0
(4) City Surplus Reserve Account (From Prior Years)	0	0	0	-1,081,000	0	-1,081,000
(5) ½ Year Interest on (4)	0	0	0	-43,240	0	-43,240
(6) Total Contribution Offsets Available (3) + (4) + (5)	0	0	0	-1,124,240	0	-1,124,240
(7) Total Contribution Required (1) x (2)	10,079,754	3,095,000	13,174,754	9,826,863	2,942,443	12,769,306
(8) Unused Offset (6) – (7), not less than 0	0	0	0	0	0	0
(9) Offset Adjustments	0	0	0	0	0	0
(10) Additional Offset Required (7) – (6) – (9), not less than 0, from Prepaid Contribution Account	10,079,754	3,095,000	13,174,754	10,951,103	2,942,443	13,893,546
(11) Contribution Rate Adopted by the City for FY 2012/2013						12.63%
(12) Projected City Contributions Based on Rate Adopted by the City (11) * (2)				11,241,931	2,942,443	14,184,374
(13) Net Additional City Contribution Before Application of Prepaid Employer Contribution Account (10) – (12)	10,079,754	3,095,000	13,174,754	-290,828	0	-290,828
(14) City’s Prepaid Employer Contribution Account Balance (Negative Account Balance Represents Contribution Shortfall)	302,461	0	302,461	0	0	0
(15) ½ Year Interest on (14)	12,098	0	12,098	0	0	0
(16) City’s Fiscal Year Contribution After Application of Prepaid Employer Contribution Account (13) – (14) – (15), not less than 0	9,765,194	3,095,000	12,860,194	0	0	0
(17) Projected Residual Prepaid Employer Contribution Account at Year End. (14) + (15) – (13), Adjusted with ½ Year Interest, not less than 0 (Negative Account Balance Represents Contribution Shortfall)	0	0	0	302,461	0	302,461

*Note: Results may not total properly due to rounding.*

**SECTION 4: Reporting Information for the City of Fresno Employees Retirement System**

**Appendix B (continued)**

**Allocation of Actuarial Surplus**

	June 30	
	2012	2011
<b>Table 5: Calculations for PRSB and PRSB Reserve Account:</b>		
(1) PRSB Allocation of Distributable Actuarial Surplus (Table 3)	\$0	\$0
(2) PRSB Reserve Account (as of Valuation Date)	\$82,000	\$212,000
(3) Estimated July 1 to December 31 PRSB Payment	<u>\$69,495</u>	<u>\$68,851</u>
(4) Total amount available for PRSB (1) + (2) – (3)	\$12,505	\$143,149
(5) 95% x (4)	\$11,880	\$135,992
(6) Number of eligible participants (Retirees & Beneficiaries)	1,591	1,557
(7) Monthly PRSB Benefit for next calendar year (5) / (6) / 12	\$0.62	\$7.28
(8) Target Monthly Benefit	\$985.00	\$985.00
(9) Benefit Shortfall (8) – (7)	\$984.38	\$977.72
(10) Estimated PRSB Reserve Account as of end of next calendar year: (4) – (6) x (7) x 12	\$668	\$7,130

Under section 3-567(f)(4)(iii)(2) of the Municipal Code, we understand that the PRSB reserve shall be used to increase the PRSB benefit to the extent necessary to pay the monthly health insurance premium.

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