

City of Fresno Employees Retirement System

*Actuarial Valuation and Review
as of June 30, 2009*

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January 5, 2010

*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, 2009. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2010-2011 and analyzes the preceding year's experience.

The census and financial information were prepared by the City of Fresno Employees Retirement System. That assistance is gratefully acknowledged. The actuarial calculations were completed under the supervision of Andy Yeung, ASA, MAAA, Enrolled Actuary.

This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. In our opinion, the combined operation of the assumptions and the methods applied in this valuation fairly represent past and anticipated future experience of the Retirement System and it is our understanding that they meet the parameters required by GASB Statement 25. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. The undersigned are Members of the American Academy of Actuaries and meet the qualification requirements to render the actuarial opinion contained herein.

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*

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Vice President and Associate Actuary*

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

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, 2009. 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, 2009, provided by the Retirement System;
- The assets of the System as of June 30, 2009, 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, 2009, there is an actuarial surplus (or prefunded actuarial accrued liability) as the System has valuation value of assets that are in excess of the actuarial accrued liability. The actuarial surplus in the Retirement System is used to reduce the City's contribution and to provide a Post Retirement Supplemental Benefit (PRSB). The allocation of surplus 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.

Please note that the Actuarial Standards Board has recently adopted a revised Actuarial Standard of Practice (ASOP) No. 4 that provides guidelines that actuaries have to follow when selecting actuarial assumptions. 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.

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

The rates calculated in this report may be adopted by the Board for the fiscal year that extends from July 1, 2010 through June 30, 2011.

Significant Issues in Valuation Year

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

- | | |
|--------------|--|
| Ref: Page 30 | <ul style="list-style-type: none">➤ In the June 30, 2008 valuation, the ratio of the valuation value of assets to actuarial accrued liabilities was 142.2%. In this June 30, 2009 valuation, the funding ratio has decreased to 133.9%. The funding ratio as of June 30, 2009 if measured using the market value of assets instead of the valuation value of assets is 95.1%.➤ The Retirement System's prefunded actuarial accrued liability (PAAL) as of June 30, 2008 was \$291.1 million. In this year's valuation, the PAAL has decreased to \$242.8 million. |
| Ref: Page 25 | <ul style="list-style-type: none">➤ The Plan had a net actuarial experience loss of about \$55.3 million. A reconciliation of the System's PAAL is provided in Section 3, Exhibit H. |
| Ref: Page 15 | <ul style="list-style-type: none">➤ The aggregate employer rate calculated in this valuation has increased from 0.00% of payroll as of June 30, 2008 to 6.67% of payroll as of June 30, 2009. This is the net result of: (i) lower than expected return on investments, (ii) exhaustion of the credit from prepaid employer contributions, (iii) difference between the actual and the estimated June 30, 2009 surplus allocated to the City in the June 30, 2008 valuation for offsetting the City's contributions for the 2009/2010 plan year, (iv) higher normal cost (from 10.62% in the June 30, 2008 valuation to 10.90% in the June 30, 2009 valuation) due to increase in attained age for active members, (v) other experience gains or losses and adjustments, offset somewhat by (vi) lower than expected retiree and DROP COLA increases. A reconciliation of the Retirement System's aggregate employer rate is provided in Section 2, Subsection D (see Chart 14). <p>Please note that pertaining to the current methodology that caused the City's contribution shortfall as described in (iii) above, the Retirement Board has decided that effective with the next valuation as of June 30, 2010, the System will apply the projected actuarial rate of return (taking into account the known deferred investment losses at the time of the projection) in lieu of the 8.25% assumed rate of return in projecting the surplus available to offset the City's contributions.</p> |
| Ref: Page 16 | <ul style="list-style-type: none">➤ The aggregate member rate calculated in this valuation has decreased from 5.04% of payroll to 5.03% of payroll. The change in member rate is due to change in membership demographics as there is no change in the individual entry age based basic member rates. A reconciliation of the Retirement System's aggregate member rate is provided in Section 2, Subsection D (see Chart 15). |

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

Ref: Page 32

- There are no changes in actuarial assumptions in the June 30, 2009 valuation. A description of these assumptions can be found in Section 4, Exhibit IV of this report.

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, 2009 is \$278.0 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, 2009. This implies that if the Retirement System earns the assumed net rate of investment return of 8.25% 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 8.25% rate and all other actuarial assumptions are met, the contribution requirements would increase in each of the next few years.
- The actuarial surplus as of June 30, 2009 (see Appendix B) would be adjusted in future valuations to reflect the deferred investment losses mentioned above. If all the deferred investment losses were to be recognized immediately, the actuarial surplus would be depleted in this valuation.
- The unrecognized investment losses of \$278.0 million represent 38% of the market value of assets. Unless offset by future investment gains or other favorable experience, the recognition of the \$278.0 million market losses is expected to have a significant 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 133.9% to 95.1%.
 - If the deferred losses were recognized immediately in the valuation value of assets, the aggregate employer contribution rate would increase from 6.67% of payroll to 9.69% of payroll, assuming a 10-year period for amortizing the Plan's Unfunded Actuarial Accrued Liability (UAAL). The aggregate member contribution rate would increase from 5.03% of payroll to 7.64% of payroll, as there would be no surplus available to offset the COLA rate.
 - For more details on the impact of the deferred losses, please refer to our surplus projection report dated December 2, 2009.
- As we have discussed with the Board during our surplus projection studies, consistent with Section 3-530 of the Fresno Municipal Code, any UAAL will be amortized over the remaining future working lifetimes of the active members, which is approximately 10 years. However, the System has not had any UAAL for many years and the Board may want to review the above Section of the Code and the Board's policy to determine if they remain appropriate in setting the City's rate when there is an UAAL.

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

- The actuarial valuation report as of June 30, 2009 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.

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)

	June 30, 2009		June 30, 2008	
Employer Contribution Rates:		Estimated		Estimated
	Total Rate	Annual Amount ⁽¹⁾	Total Rate	Annual Amount ⁽¹⁾
Normal cost rate	11.09%	\$16,063	10.62%	\$15,383
Surplus offset	-6.20%	-8,976	-8.75%	-12,674
Prepaid contributions	0.00%	0	-1.87%	-2,709
Contribution shortfall from prior fiscal year	1.78%	2,584	0.00%	0
Required contributions	6.67%	9,671	0.00%	0
Average Member Contribution Rates:		Estimated		Estimated
	Total Rate	Annual Amount ⁽²⁾	Total Rate	Annual Amount ⁽²⁾
All members (basic only) ⁽³⁾	5.03%	\$6,444	5.04%	\$6,456
Funded Status:				
Actuarial accrued liability	\$715,250		\$689,833	
Valuation value of assets	958,032		980,961	
Funded percentage	133.9%		142.2%	
Prefunded Actuarial Accrued Liability	\$242,782		\$291,128	
Key Economic Assumptions:				
Interest rate	8.25%		8.25%	
Inflation rate	3.75%		3.75%	
Across-the-board salary increase	0.25%		0.25%	

⁽¹⁾ Based on projected fiscal year 2010-2011 annual payroll for active non-DROP and DROP members of \$144,845.

⁽²⁾ Based on projected fiscal year 2010-2011 annual payroll for members not in the DROP of \$128,104.

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

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

Summary of Key Valuation Demographic and Financial Data

	June 30, 2009	June 30, 2008	Percentage Change
Active Members:			
Non-DROP			
Number of members	2,217	2,245	-1.2%
Average age	45.8	45.3	N/A
Average service	9.6	9.2	N/A
Projected total compensation ⁽¹⁾	\$123,176,724	\$117,793,489	4.6%
Average projected compensation	\$55,560	\$52,469	5.9%
DROP			
Number of members	273	264	3.4%
Average age	59.9	59.6	N/A
Average service	24.1	23.6	N/A
Projected total compensation ⁽¹⁾	\$16,097,424	\$15,316,424	5.1%
Average projected compensation	\$58,965	\$58,017	1.6%
Retired Member and Beneficiaries:			
Number of members:			
Service retired	935	909	2.9%
Disability retired	135	137	-1.5%
Beneficiaries	330	312	5.8%
Total	1,400	1,358	3.1%
Average age	70.7	70.7	N/A
Average monthly benefit ⁽²⁾	\$1,798	\$1,824	-1.4%
Vested Terminated Members:			
Number of vested terminated members ⁽³⁾	188	195	-3.6%
Average age	46.4	46.3	N/A
Summary of Financial Data (dollar amounts in thousands):			
Market value of assets	\$735,579	\$969,031	-24.1%
Return on market value of assets	-20.97%	-6.50%	N/A
Actuarial value of assets	\$1,013,579	\$1,029,028	-1.5%
Return on actuarial value of assets	1.81%	10.13%	N/A
Valuation value of assets	\$958,032	\$980,961	-2.3%
Return on valuation value of assets	0.59%	8.95%	N/A

⁽¹⁾ June 30, 2008 payroll was projected payroll for plan year 2008-2009. June 30, 2009 payroll was projected payroll for plan year 2009-2010.

⁽²⁾ Excludes supplemental benefits paid from PRSB.

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

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 six valuations can be seen in this chart.

CHART 1

Member Population: 2004 – 2009

Year Ended June 30	Active Members ⁽¹⁾	Vested Terminated Members ⁽²⁾	Retired Members and Beneficiaries	Ratio of Non-Actives to Actives
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

⁽¹⁾ Includes DROP members.

⁽²⁾ 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 2,217 non-DROP active members with an average age of 45.8 years, average years of service of 9.6 and average compensation of \$55,560. The 2,245 non-DROP active members in the prior valuation had an average age of 45.3 years, average service of 9.2 and average compensation of \$52,469.

Inactive Members

In this year's valuation, there were 188 members with a vested right to a deferred or immediate vested benefit or entitled to a return of their member contributions versus 195 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, 2009

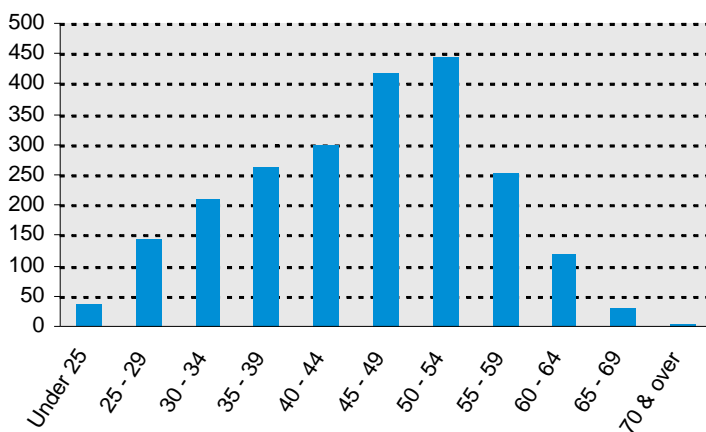
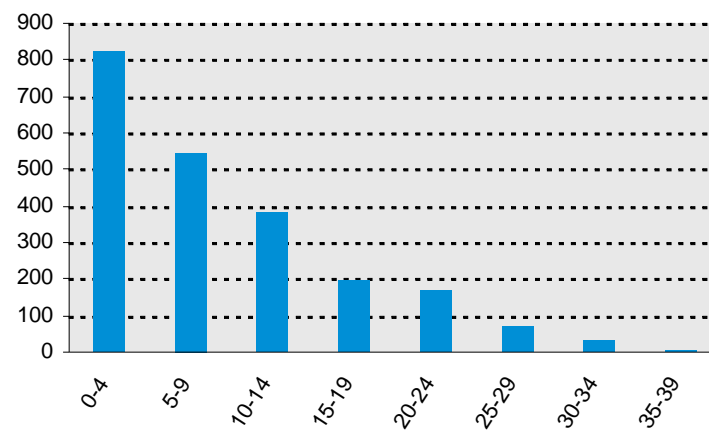


CHART 3

Distribution of Non-DROP Active Members by Years of Service as of June 30, 2009



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

DROP Active Members

In this year's valuation there were 273 DROP active members with an average age of 59.9 years, average years of service of 24.1, and average compensation of \$58,965. The 264 DROP active members in the prior valuation had an average age of 59.6 years, average years of service of 23.6, and average compensation of \$58,017.

Retired Members and Beneficiaries

As of June 30, 2009, 1,070 retired members and 330 beneficiaries were receiving total monthly benefits of \$2,517,253. For comparison, in the previous valuation, there were 1,046 retired members and 312 beneficiaries receiving monthly benefits of \$2,477,409.

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, 2009

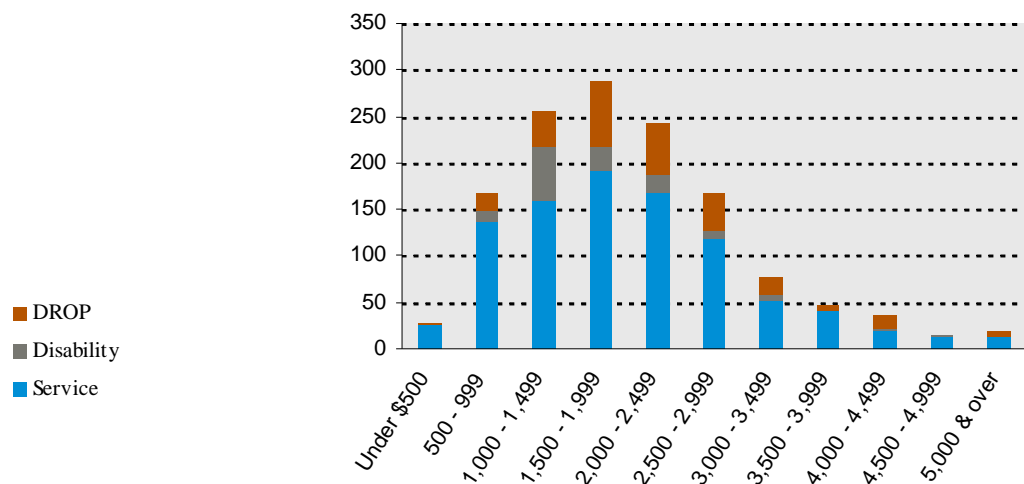
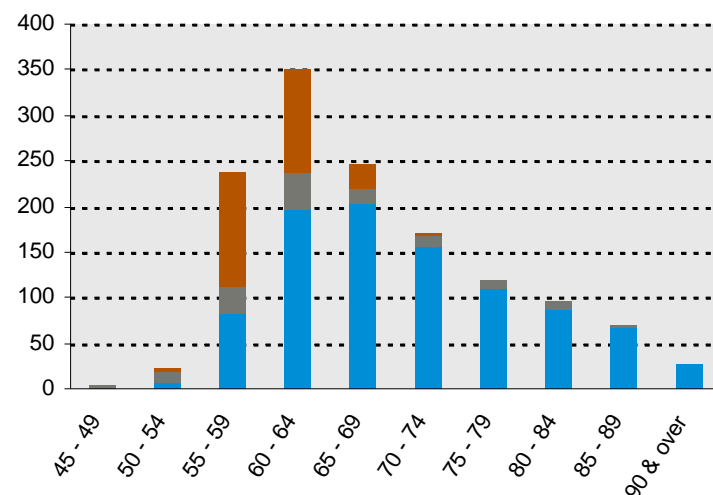


CHART 5

Distribution of Retired Members (Excl. Beneficiaries) by Type and by Age as of June 30, 2009



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

B. FINANCIAL INFORMATION

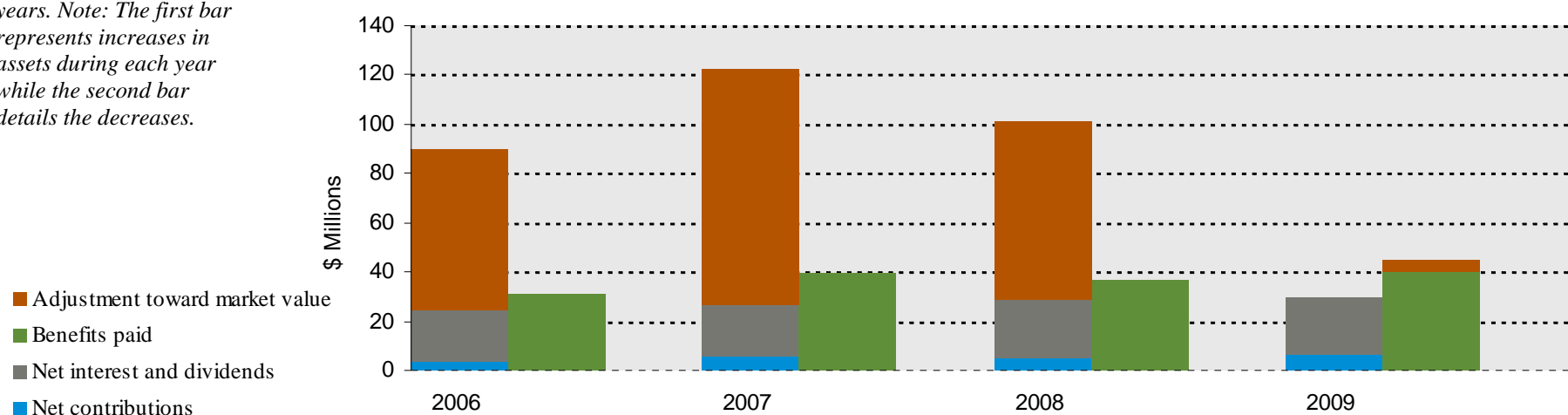
Retirement plan funding anticipates that, over the long term, both contributions and net investment earnings (less investment fees and administrative expenses) will be needed to cover benefit payments.

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 four 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, 2006-2009



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

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, 2009

Plan Year Ending June 30	Total Actual Market Return	Expected Market Return	Investment Gain/(Loss)*	Deferred Factor	Deferred Return
2005	\$ 83,471,311	\$ 60,275,976	\$23,195,335	0.0	\$0
2006	100,177,718	70,874,321	29,303,398	0.2	5,860,680
2007	156,545,863	76,650,021	79,895,842	0.4	31,958,337
2008	(68,481,857)	86,887,836	(155,369,693)	0.6	(93,221,816)
2009	(199,694,398)	78,552,531	(278,246,929)	0.8	(222,597,543)

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

1. Total Deferred Return	\$ (278,000,342)
2. Net Market Value of Assets	735,578,804
3. Actuarial Value of Assets (Item 2 – Item 1)	\$ 1,013,579,146
4. Ratio of Actuarial Value to Market Value	137.8%
5. Non-Valuation Reserves and Other Adjustments	
a. DROP Reserve	52,494,000
b. PRSB Reserve	3,053,000
c. Total	55,547,000
6. Valuation Value of Assets (Item 3 – Item 5c)	\$ 958,632,146

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

Deferred return as of June 30, 2009 recognized in each of the next four years:

6/30/2010	\$(64,883,476)
6/30/2011	(70,744,156)
6/30/2012	(86,723,324)
6/30/2013	(55,649,386)
	<u>\$(278,000,342)</u>

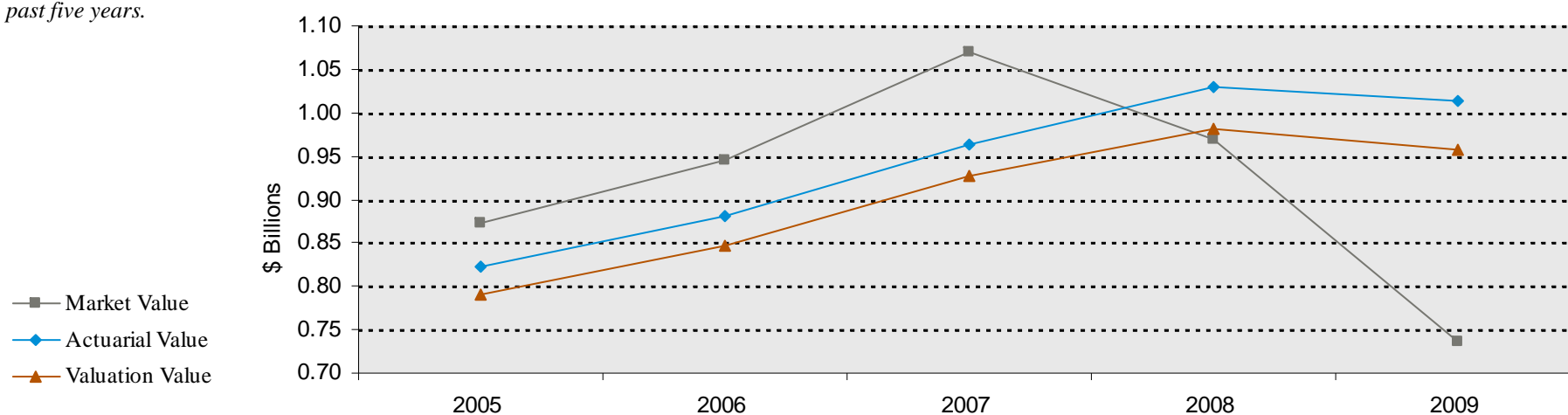
SECTION 2: Valuation Results for the City of Fresno Employees Retirement System

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 five years.

CHART 8

Market Value, Actuarial Value and Valuation Value of Assets as of June 30, 2005–2009



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

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 \$55.3 million, including a loss of \$74.0 million from investments and a gain of \$18.7 million from all other sources. The net experience variation from individual sources other than investments was 2.6% 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.

CHART 9

Actuarial Experience for Year Ended June 30, 2009

1. Net gain/(loss) from investments ⁽¹⁾	-\$74,003,000
2. Net gain/(loss) from other experience ⁽²⁾	<u>18,714,000</u>
3. Net experience gain/(loss): (1) + (2)	-\$55,289,000

⁽¹⁾ Details in Chart 10.

⁽²⁾ See 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 8.25% (based on June 30, 2008 valuation). The actual rate of return on a valuation basis for the 2008/2009 plan year was 0.59%.

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, 2009 with regard to its investments.

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

CHART 10

Investment Experience for Year Ended June 30, 2009 – Valuation Value, Actuarial Value and Market Value of Assets

	Valuation Value	Actuarial Value	Market Value
1. Actual return	\$5,743,642	\$18,308,120	\$(199,694,398)
2. Average value of assets	\$966,624,956	\$1,012,149,717	\$952,151,893
3. Actual rate of return: (1) ÷ (2)	0.59%	1.81%	-20.97%
4. Assumed rate of return	8.25%	8.25%	8.25%
5. Expected return: (2) x (4)	\$79,746,559	\$83,502,352	\$78,552,531
6. Actuarial gain/(loss): (1) – (5)	<u>\$(74,002,917)</u>	<u>\$(65,194,232)</u>	<u>\$278,246,929</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 five years.

In this valuation, we have continued to apply the 8.25% investment return assumption adopted by the Board for the last actuarial valuation.

CHART 11

Investment Return – Actuarial Value, Valuation Value and Market Value: 2005 – 2009

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%)
Annualized Average Return		8.51%		8.94%		1.26%

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

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 and Valuation Rates of Return for Years Ended June 30, 2005 - June 30, 2009



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

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, 2009 amounted to \$18.7 million which is 2.6% of the actuarial accrued liability. See Exhibit H for a detailed development of the prefunded actuarial accrued liability.

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

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., 3.75% inflation plus 0.25% 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, 2009		June 30, 2008	
	<u>Rate</u>	<u>Estimated Annual Amount*</u>	<u>Rate</u>	<u>Estimated Annual Amount*</u>
All Categories Combined				
Normal Cost	11.09%	\$16,063	10.62%	\$15,383
Surplus Offset	-6.20%	-8,976	-8.75%	-12,674
Prepaid Contribution	0.00%	0	-1.87%	-2,709
Contribution Shortfall from prior fiscal year	<u>1.78%</u>	<u>2,584</u>	<u>0.00%</u>	<u>0</u>
Total Contribution	6.67%	\$9,671	0.00%	\$0

* Amounts are in thousands and are based on projected fiscal year 2010 – 2011 annual payroll for active non-DROP and DROP members (also in thousands).

Payroll \$ 144,845

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

The employer contribution rates as of June 30, 2009 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, 2008 to June 30, 2009 (Dollars in Thousands)

	Contribution Rate	Estimated Amount*
Recommended Contribution Rate as of June 30, 2008	0.00%	\$0
Effect of actuarial experience during 2008:		
1. Effect of investment loss	3.21%	\$4,650
2. Effect of exhaustion of credit from prepaid employer contributions	1.87%	\$2,709
3. Effect of the difference between the actual and the estimated June 30, 2009 surplus allocated to the City in the June 30, 2008 valuation for offsetting the City's contributions for the 2009/2010 plan year	1.82%	\$2,642
4. Effect of higher normal cost due to increase in attained age for active members	0.28%	\$406
5. Effect of other experience (gain)/loss and adjustments	0.23%	\$336
6. Effect of lower than expected retiree and DROP COLA increases	-0.74%	-\$1,072
Subtotal	6.67%	\$9,671
Recommended Contribution Rate as of June 30, 2009	6.67%	\$9,671

* Based on projected fiscal year 2010-2011 annual payroll of \$144,845 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, 2009 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, 2008 to June 30, 2009 (Dollar Amounts in Thousands)

	Contribution Rate	Estimated Amount ⁽¹⁾
Average Contribution Rate as of June 30, 2008 (Basic Only) ⁽²⁾	5.04%	\$6,456
1. Effect of change in membership demographic	-0.01%	-\$12
Average Contribution Rate as of June 30, 2009 (Basic Only) ⁽²⁾	5.03%	\$6,444

⁽¹⁾ Based on projected fiscal year 2010-2011 annual payroll for members NOT in the DROP of \$128,104.

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

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

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 16 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 I, II, and III.

These graphs show key GASB factors.

CHART 16
Required Versus Actual Contributions

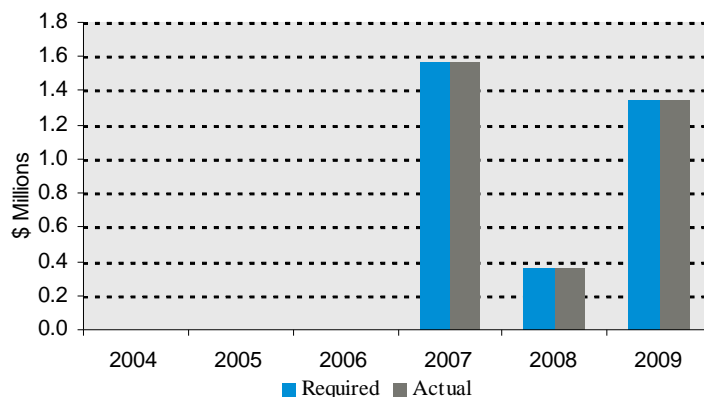
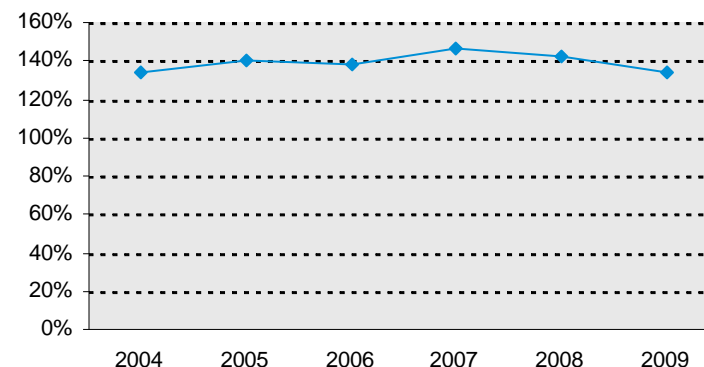


CHART 17
Funded Ratio



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

EXHIBIT A

Table of Plan Coverage

	Year Ended June 30		Change From Prior Year
Category	2009	2008	
Active members in valuation			
Non-DROP			
Number	2,217	2,245	-1.2%
Average age	45.8	45.3	N/A
Average service	9.6	9.2	N/A
Projected total compensation	\$123,176,724	\$117,793,489	4.6%
Projected average compensation	\$55,560	\$52,469	5.9%
Member account balances	\$95,046,732	\$90,890,849	4.6%
Total active vested members	1,396	1,374	1.6%
DROP			
Number	273	264	3.4%
Average age	59.9	59.6	N/A
Average service	24.1	23.6	N/A
Projected total compensation	\$16,097,424	\$15,316,424	5.1%
Projected average compensation	\$58,965	\$58,017	1.6%
Vested terminated members			
Number	188	195	-3.6%
Average age	46.4	46.3	N/A
Retired members			
Number in pay status	935	909	2.9%
Average age	70.4	70.5	N/A
Average monthly benefit ⁽¹⁾	\$2,006	\$2,049	-2.1%
Disabled members			
Number in pay status	135	137	-1.5%
Average age	64.3	64.1	N/A
Average monthly benefit ⁽¹⁾	\$1,776	\$1,759	1.0%
Beneficiaries			
Number in pay status	330	312	5.8%
Average age	73.9	74.1	N/A
Average monthly benefit ⁽¹⁾	\$1,219	\$1,199	1.7%

⁽¹⁾ Excludes supplemental benefits paid from PRSB.

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, 2009 – 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
Under 25	35	35	--	--	--	--	--	--	--	--
	\$46,824	\$46,824	--	--	--	--	--	--	--	--
25 - 29	146	130	16	--	--	--	--	--	--	--
	50,918	50,093	\$57,621	--	--	--	--	--	--	--
30 - 34	212	133	65	14	--	--	--	--	--	--
	50,833	48,282	56,477	\$48,861	--	--	--	--	--	--
35 - 39	263	121	94	46	2	--	--	--	--	--
	52,424	51,475	53,113	53,809	\$45,542	--	--	--	--	--
40 - 44	298	103	96	60	28	11	--	--	--	--
	55,359	54,938	54,163	56,167	60,488	\$52,277	--	--	--	--
45 - 49	419	132	80	77	57	59	14	--	--	--
	57,648	52,319	59,791	59,759	59,859	61,052	\$60,676	--	--	--
50 - 54	443	74	96	80	53	70	47	23	--	--
	58,907	57,616	56,676	56,078	57,136	63,517	61,978	\$65,983	--	--
55 - 59	253	59	57	67	35	17	12	5	1	--
	57,369	58,259	56,193	52,777	63,115	66,825	53,498	58,604	\$57,948	--
60 - 64	117	28	35	27	14	8	--	3	2	--
	56,527	60,969	56,654	47,325	53,377	66,127	--	69,125	81,063	--
65 - 69	28	6	5	9	6	2	--	--	--	--
	52,597	70,627	48,430	45,334	52,873	40,777	--	--	--	--
70 & over	3	--	2	1	--	--	--	--	--	--
	64,075	--	72,997	46,231	--	--	--	--	--	--
Total	2,217	821	546	381	195	167	73	31	3	--
	\$55,560	\$52,616	\$56,013	\$54,816	\$58,966	\$62,095	\$60,334	\$65,097	\$73,358	--

* Excludes 273 active members in DROP with projected average compensation of \$58,965.

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

EXHIBIT C

Reconciliation of Member Data – June 30, 2008 to June 30, 2009

	Non-DROP Active Members	Vested Terminated Members	Pensioners/ DROP**	Disableds	Beneficiaries	Total
Number as of June 30, 2008	2,245	195	1,173	137	312	4,062
New members	96	0	0	0	0	96
Terminations – with vested rights	-14	14	0	0	0	0
Contributions refunds	-56	-2	0	0	0	-58
Retirements/DROP	-50	-21	71	0	0	0
New disabilities	-3	0	-3	6	0	0
Return to work	2	-2	0	0	0	0
Died with or without beneficiary	-3	0	-33	-8	18*	-26
Data adjustments	0	4	0	0	0	4
Number as of June 30, 2009	2,217	188	1,208	135	330	4,078

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

** Includes 264 and 273 active members in DROP as of June 30, 2008 and June 30, 2009, respectively.

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

	Year Ended June 30, 2009	Year Ended June 30, 2008
Contribution income:		
Employer contributions	\$1,345,274	\$354,894
Employee contributions	5,845,044	5,665,627
Less administrative expenses	<u>-894,267</u>	<u>-898,355</u>
Net contribution income	\$6,296,051	\$5,122,166
Investment income:		
Interest, dividends and other income	\$28,150,307	\$29,587,894
Adjustment toward market value	-5,118,938	72,441,279
Less investment fees	<u>-4,723,249</u>	<u>-5,955,230</u>
Net investment income	<u>18,308,120</u>	<u>96,073,943</u>
Total income available for benefits	\$24,604,171	\$101,196,109
Less benefit payments:		
Benefit payments	-\$33,946,712	-\$31,285,999
Post retirement supplemental benefits	-5,084,478	-4,071,510
Refunds of contributions	<u>-1,022,243</u>	<u>-1,111,562</u>
Net benefit payments	-\$40,053,433	-\$36,469,071
Change in reserve for future benefits	-\$15,449,262	\$64,727,038

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

EXHIBIT E

Summary Statement of Assets

	Year Ended June 30, 2009	Year Ended June 30, 2008
Cash equivalents	\$862,300	\$1,925,327
Accounts receivable:		
Receivables for investments sold	\$8,065,297	\$7,413,664
Interest and dividends	3,534,494	3,739,422
Other receivables	<u>5,256,254</u>	<u>1,596,003</u>
Total accounts receivable	16,856,045	12,749,089
Investments:		
Domestic and international equity	\$377,316,191	\$537,915,421
Government and corporate bonds	240,582,260	286,315,713
Real estate	73,145,372	105,206,253
Emerging market equity	35,009,363	27,807,080
Collateral held for securities lent	107,455,620	159,026,067
Other investments	<u>16,383,366</u>	<u>15,532,085</u>
Total investments at market value	<u>849,892,172</u>	<u>1,131,802,619</u>
Total assets	\$867,610,517	\$1,146,477,035
Less accounts payable:		
Collateral held for securities lent	-\$107,455,620	-\$159,026,067
Payable for investments and foreign currency purchased	-18,724,514	-12,887,092
Prepaid employer contributions	-3,088,481	-4,106,927
Other liabilities	<u>-2,763,098</u>	<u>-1,426,365</u>
Total accounts payable	-\$132,031,713	-\$177,446,451
Net assets at market value	<u>\$735,578,804</u>	<u>\$969,030,584</u>
Net assets at actuarial value	<u>\$1,013,579,146</u>	<u>\$1,029,028,408</u>
Net assets at valuation value	<u>\$958,032,146</u>	<u>\$980,961,408</u>

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

EXHIBIT F

Actuarial Balance Sheet

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	\$958,032
2. Present value of future member normal cost	59,609
3. Present value of future employer normal cost	140,811
4. Unfunded /(prefunded) actuarial accrued liability	-242,782
5. Total current and future assets	<u>\$915,670</u>
Liabilities	
6. Present value of benefits already granted, excludes current active DROP	\$338,938
7. Present value of benefits for current active DROP	112,317
8. Present value of benefits to be granted	464,415
9. Total liabilities	<u>\$915,670</u>

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

EXHIBIT G

Summary of Reported Asset Information as of June 30, 2009

	Reserves\$(000)
Employer Advance/Retired Reserves	\$ 757,306
Reserve for Market Contingencies	(54,225)
Active Member Reserves	106,844
Other Reserves	(129,893)
DROP Reserve ⁽¹⁾	52,494
Reserve for PRSB ⁽¹⁾	3,053
Reserve for City Surplus ⁽¹⁾	0
Net Assets Held in Trust for Benefits	<u>\$ 735,579</u>

⁽¹⁾ *Non-valuation reserve*

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, 2009

		(Dollar amounts in Thousands)
1	Unfunded/(Prefunded) actuarial accrued liability at beginning of year	-\$291,128
2	Gross Normal Cost at middle of year	23,588
3	Actual employer and member contributions	-7,190
4	Interest (whole year on (1) plus half year on (2) + (3))	<u>-23,341</u>
5	Expected unfunded/(prefunded) actuarial accrued liability at end of year	-\$298,071
6	Actuarial (gain)/loss due to all changes:	
	<u>Experience (gain)/loss</u>	
a.	Loss from investment	\$74,003
b.	Lower than expected benefit increases for continuing retirees and DROP participants	-16,922
c.	Other experience (gain)/loss	<u>-1,792</u>
d.	Subtotal	\$55,289
7	Actual unfunded/(prefunded) actuarial accrued liability at end of year	-\$242,782

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

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 limit indexed for inflation. That limit is \$195,000 for 2009 and 2010. 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

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 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

**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

Supplementary Information Required by GASB – Schedule of Employer Contributions

Plan Year Ended June 30	Annual Required Contributions	Actual Contributions	Percentage Contributed
2004	0	0	100.0%
2005	0	0	100.0%
2006	0	0	100.0%
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%

SECTION 4: Reporting Information for the City of Fresno Employees Retirement System**EXHIBIT II****Supplementary Information Required by GASB – Schedule of Funding Progress (Dollar Amounts in Thousands)**

Actuarial Valuation Date	Valuation Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Prefunded AAL (a) – (b)	Funded Ratio (%) (a) / (b)	Covered Payroll (c)	Prefunded AAL as a Percentage of Covered Payroll (%) [(a) – (b)] / (c)
6/30/2004	\$741,766	\$554,366	\$187,400	133.8	\$99,745	187.9
6/30/2005	790,858	565,550	225,308	139.8	102,558	219.7
6/30/2006	847,516	613,913	233,603	138.1	111,379	209.7
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

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

EXHIBIT III

Supplementary Information Required by GASB

Valuation date	June 30, 2009
Actuarial cost method	Projected Unit Credit Cost Method
Amortization method	Level percent of payroll for total Unfunded Actuarial Accrued Liability or Prefunded Actuarial Accrued Liability
Remaining amortization period	15 years (non-declining) for all Prefunded Actuarial Accrued Liability
Asset valuation method	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).

Actuarial assumptions:	
Investment rate of return	8.25%
Inflation rate	3.75%
Real across-the-board salary increase	0.25%
Projected salary increases*	4.30% to 12.00%
Cost of living adjustments	3.75% of retirement income

Plan membership:	
Retired members and beneficiaries receiving benefits	1,400
Terminated members entitled to, but not yet receiving benefits	188
DROP members	273
Active members	<u>2,217</u>
Total	4,078

* Includes inflation at 3.75% plus real across-the-board salary increase of 0.25% plus merit and promotion increases. See Exhibit IV for these increases.

EXHIBIT IV

Actuarial Assumptions and Actuarial Cost Method

Please note that in determining optional benefits for disabled members, the 1981 General Disability Mortality Table set back four years is used instead.

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

Termination Rates Before Retirement:

Rate (%)		
Mortality		
Age	Male	Female
25	0.07	0.03
30	0.08	0.04
35	0.09	0.05
40	0.11	0.07
45	0.16	0.10
50	0.26	0.14
55	0.44	0.23
60	0.80	0.44
65	1.45	0.86

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

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

Termination Rates Before Retirement (Continued):

Age	Rate (%)	
	Disability	
	Male	Female
20	0.00	0.00
25	0.00	0.00
30	0.01	0.01
35	0.05	0.05
40	0.50	0.50
45	0.75	0.75
50	0.85	0.85
55	0.85	0.85
60	0.00	0.00

All disabilities are assumed to be non-service connected.

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

Termination Rates Before Retirement (Continued):

Rate (%)							
Withdrawal (Refund of Contributions)							
Age	0 – 1 Years	1 – 2 Years	2 – 3 Years	3 – 4 Years	4 – 5 Years	5 – 9 Years	10+ Years
20	14.00	8.00	7.00	6.00	4.00	4.00	3.00
25	14.00	8.00	7.00	6.00	4.00	4.00	3.00
30	14.00	8.00	7.00	6.00	4.00	4.00	3.00
35	14.00	8.00	7.00	6.00	4.00	3.40	2.40
40	14.00	8.00	7.00	6.00	4.00	3.00	1.70
45	14.00	8.00	7.00	6.00	4.00	2.40	1.20
50	14.00	8.00	7.00	6.00	4.00	1.40	0.70
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

Termination Rates Before Retirement (Continued):

<u>Vested Termination (Deferred Vested Benefit)</u>	
<u>Age</u>	<u>Rate (%)</u>
20	2.50
25	2.50
30	2.50
35	2.35
40	2.25
45	2.10
50	2.00
55	0.00
60	0.00

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

Retirement Rates:

<u>Age</u>	<u>Rate (%)</u>
55	13.00
56	7.00
57	7.00
58	7.00
59	8.00
60	9.00
61	11.00
62	17.00
63	11.00
64	12.00
65	20.00
66	21.00
67	22.00
68	40.00
69	50.00
70	100.00

Effective January 28, 2008, members may retire at age 50 with an actuarially equivalent service retirement benefit. The retirement assumptions for ages 50 through 54 were not changed as this data is not yet available.

<u>DROP Assumptions:</u>	<u>Male and Female</u>
First Year Eligible	40%
Second Year Eligible	15%
Third Year Eligible	10%
Fourth Year Eligible	10%
Thereafter	0%

Members are assumed to remain in DROP 4 years

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

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

For current deferred vested members, the retirement assumption is age 55.

We assume that no future deferred vested members will continue to work for a reciprocal employer.

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; 70% of female members.

Age of Spouse:

Wives are 4 years younger than their husbands.

Net Investment Return:

8.25%, net of administration and investment expenses.

**Employee Contribution
Crediting Rate:**

8.25%, assumed in the valuation.

Consumer Price Index:

Increase of 3.75% per year, retiree COLA increases due to CPI are limited to maximum at 3.75% per year.

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

Salary Increases:

Annual Rate of Compensation Increase

Inflation: 3.75% per year; plus 0.25% 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	8.00%
1	6.00%
2	5.00%
3	3.70%
4	3.10%
5	2.10%
6	1.10%
7	0.90%
8	0.70%
9+	0.30%

Actuarial Value of Assets:	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.
Valuation Value of Assets:	The Actuarial Value of Assets reduced by the value of the non-valuation reserves.
Actuarial Cost Method:	Projected Unit Credit Actuarial Cost Method. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by service.
Changes in Actuarial Assumptions:	There have been no changes in actuarial assumptions since the previous actuarial valuation.

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

EXHIBIT V

Summary of Plan Provisions

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.

Membership Eligibility:	Permanent full-time employees except sworn Fire and Police personnel.
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Final Compensation for Benefit Determination:	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).
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Service:	Years of service (Yrs).
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Service Retirement Eligibility:	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

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

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

Death After Retirement:

All Members

Service or

Disability Retirement

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

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).

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

Member Contributions:	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).
City Contributions:	The amortization period for Prefunded Actuarial Accrued Liability is an open non-declining 15-year period.
Post Retirement Supplemental Benefits (PRSB):	PRSB may be paid to retired DROP participants, eligible retirees, and beneficiaries (§3-567). This benefit has been excluded from this valuation.

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, 2009 and June 30, 2008 valuation:

	June 30, 2009 Actuarial Valuation								June 30, 2008 Actuarial Valuation							
	BASIC		COLA, Before Surplus Offset		Surplus Offset		TOTAL		BASIC		COLA, Before Surplus Offset		Surplus Offset		TOTAL	
	<u>Rate</u>	<u>Estimated Annual Amt*</u>	<u>Rate</u>	<u>Estimated Annual Amt**</u>	<u>Rate</u>	<u>Estimated Annual Amt**</u>	<u>Rate</u>	<u>Estimated Annual Amt*</u>	<u>Rate</u>	<u>Estimated Annual Amt*</u>	<u>Rate</u>	<u>Estimated Annual Amt**</u>	<u>Rate</u>	<u>Estimated Annual Amt**</u>	<u>Rate</u>	<u>Estimated Annual Amt*</u>
All Members	5.03%	\$6,444	2.61%	\$3,780	-2.61%	-\$3,780	5.03%	\$6,444	5.04%	\$6,456	2.53%	\$3,665	-2.53%	-\$3,665	5.04%	\$6,456

* Amounts are in thousands and are based on the following projected fiscal year 2010 – 2011 annual payroll for members NOT in the DROP (also in thousands):

Payroll (excluding DROP members) \$128,104

** Currently paid out of actuarial surplus (see Appendix B). Amounts are in thousands and are based on the following projected fiscal year 2010 – 2011 annual payroll for active non-DROP and DROP members (also in thousands):

Payroll (including DROP members) \$144,845

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, 2009
Actuarial Valuation as a percentage of payroll**

Entry Age	Basic	COLA	Surplus Offset	Total
16	2.61%	1.35%	-1.35%	2.61%
17	2.70%	1.40%	-1.40%	2.70%
18	2.80%	1.45%	-1.45%	2.80%
19	2.89%	1.50%	-1.50%	2.89%
20	2.99%	1.55%	-1.55%	2.99%
21	3.10%	1.61%	-1.61%	3.10%
22	3.21%	1.67%	-1.67%	3.21%
23	3.33%	1.73%	-1.73%	3.33%
24	3.46%	1.79%	-1.79%	3.46%
25	3.59%	1.86%	-1.86%	3.59%
26	3.73%	1.93%	-1.93%	3.73%
27	3.88%	2.01%	-2.01%	3.88%
28	4.04%	2.09%	-2.09%	4.04%
29	4.20%	2.18%	-2.18%	4.20%
30	4.38%	2.27%	-2.27%	4.38%
31	4.48%	2.32%	-2.32%	4.48%
32	4.59%	2.38%	-2.38%	4.59%
33	4.69%	2.43%	-2.43%	4.69%
34	4.80%	2.49%	-2.49%	4.80%
35	4.91%	2.54%	-2.54%	4.91%
36	5.02%	2.60%	-2.60%	5.02%
37	5.13%	2.66%	-2.66%	5.13%
38	5.25%	2.72%	-2.72%	5.25%
39	5.38%	2.79%	-2.79%	5.38%
40	5.50%	2.85%	-2.85%	5.50%

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	5.63%	2.92%	-2.92%	5.63%
42	5.77%	2.99%	-2.99%	5.77%
43	5.91%	3.07%	-3.07%	5.91%
44	6.07%	3.15%	-3.15%	6.07%
45	6.23%	3.23%	-3.23%	6.23%
46	6.38%	3.31%	-3.31%	6.38%
47	6.54%	3.39%	-3.39%	6.54%
48	6.69%	3.47%	-3.47%	6.69%
49	6.81%	3.53%	-3.53%	6.81%
50	6.89%	3.57%	-3.57%	6.89%
51	6.95%	3.60%	-3.60%	6.95%
52	6.95%	3.60%	-3.60%	6.95%
53	6.91%	3.59%	-3.59%	6.91%
54	6.80%	3.53%	-3.53%	6.80%

Interest:	8.25% per annum
Mortality:	1994 Group Annuity Mortality Table weighted 65% male and 35% female
Salary Increase:	See Exhibit IV in Section 4
COLA:	3.75% per annum

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

Appendix B

Allocation of Actuarial Surplus

	June 30	
	2009	2008
Surplus as of Date of Valuation (Table 1)	\$242,782,467	\$291,128,410
Actuarial Surplus (Table 1)	171,257,499	222,145,111
Distributable Actuarial Surplus as of date of valuation (Table 2)	15,540,213	20,157,846
Allocation of Distributable Surplus as of Date of Valuation:		
Member COLA Contribution Offset (Table 3)	3,505,000	3,308,000
City COLA Contribution Offset (Table 3)	3,505,000	3,308,000
Additional City Allocation (Table 3)	5,686,809	9,027,897
PRSB Allocation (Table 3)	<u>2,843,404</u>	<u>4,513,949</u>
Total	\$15,540,213	\$20,157,846
Allocation of Distributable Surplus as of Date of Next Valuation:		
Member COLA Contribution Offset (Table 3)	3,780,000	3,505,000
City COLA Contribution Offset (Table 3)	3,780,000	3,505,000
Additional City Allocation (Table 3)	5,195,977	8,604,171

The Allocation of Distributable Actuarial Surplus is sufficient to:

- Provide for member and City COLA contribution requirements for the 2010-2011 fiscal year;
- Provide for a portion of the City's contribution requirement for the 2010-2011 fiscal year (Table 4) and;
- Provide a PRSB benefit of \$195.04 per month over the 2010 calendar year (Table 5).

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

Appendix B (continued)

Allocation of Actuarial Surplus

	June 30	
	2009	2008
Table 1: Calculation of Actuarial Surplus		
(1) Valuation Value of Assets	\$958,032,146	\$980,961,408
(2) Actuarial Accrued Liability	715,249,679	689,832,998
(3) Surplus: (1) – (2)	242,782,467	291,128,410
(4) Contingency Reserve: 10% x (2)	71,524,968	68,983,300
(5) Actuarial Surplus: (3) – (4)	171,257,499	222,145,111
Table 2: Determination of Distributable Actuarial Surplus		
(1) Actuarial Surplus (Table 1)	\$171,257,499	\$222,145,111
(2) Amortization of Balance of Actuarial Surplus:		
a. Amortization Period	15	15
b. Amortization Factor	0.090742	0.090742
c. Amortization of Balance of Actuarial Surplus (1) x (2b)	\$15,540,213	\$20,157,846
(3) Projected Surplus for Next Year 1.0825 x (1) – 1.04125 x (2c):	\$169,204,996	\$219,482,725
(4) Amortization of Balance of Projected Actuarial Surplus:		
a. Amortization Period	15	15
b. Amortization Factor	0.090742	0.090742
Amortization of Balance of Actuarial Surplus (3) x (4b)	\$15,353,965	\$19,916,256

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

Appendix B (continued)

Allocation of Actuarial Surplus

	June 30	
	2009	2008
Table 3: Allocation of Distributable Actuarial Surplus:		
(1) Distributable Actuarial Surplus (Table 2)	\$15,540,213	\$20,157,846
(2) Expected COLA Contributions for Next Following Fiscal Year (from Prior Year's Actuarial Report)		
a. City	3,505,000	3,308,000
b. Members	<u>3,505,000</u>	<u>3,308,000</u>
c. Total	\$7,010,000	\$6,616,000
(3) Net Distributable Actuarial Surplus as of Date of Valuation: (1) – (2c)	8,530,213	13,541,846
(4) Additional City Allocation: (3) x $\frac{2}{3}$	5,686,809	9,027,897
(5) PRSB Allocation: (3) – (4)	2,843,404	4,513,949
(6) Next Year Projected Distributable Actuarial Surplus (Table 2)	15,353,965	19,916,256
(7) Expected COLA Contributions for Second Following Fiscal Year (from Current Year's Actuarial Report)		
a. City	3,780,000	3,505,000
b. Members	<u>3,780,000</u>	<u>3,505,000</u>
c. Total	\$7,560,000	\$7,010,000
(8) Net Projected Distributable Actuarial Surplus as of Date of Next Valuation: (6) – (7c)	7,793,965	12,906,256
(9) Additional City Allocation: (8) x $\frac{2}{3}$	5,195,977	8,604,171

The June 30, 2009 PRSB Allocation (along with the PRSB Reserve Account) is available to provide retirees and beneficiaries as of June 30, 2009 a monthly PRSB benefit as derived in Table 5.

The City Allocation (projected Item 7a as of the date of the last valuation and actual Item 4 as of the beginning of the fiscal year) along with any City Surplus Reserve is available to reduce City contributions for the fiscal year that commences 12 months following the date of the valuation. Table 4 provides the projected City contribution requirements.

The Member Allocation (Item 7b) is available to reduce members' COLA contributions and is currently sufficient to eliminate all member COLA contributions for the fiscal year that commences 12 months following the date of the valuation.

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

Appendix B (continued)

Allocation of Actuarial Surplus

	Fiscal Year 2010-2011			Fiscal Year 2009-2010		
Table 4: City Contribution Requirements	<u>Basic</u>	<u>COLA</u>	<u>Total</u>	<u>Basic</u>	<u>COLA</u>	<u>Total</u>
(1) City Normal Cost Rate	8.48%	2.61%	11.09%	8.09%	2.53%	10.62%
(2) Projected Annual Payroll	\$144,845,000	\$144,845,000	\$144,845,000	\$139,274,000	\$139,274,000	\$139,274,000
(3) City Allocation of Fiscal Year Distributable Actuarial Surplus (Table 3)	5,195,977	3,780,000	8,975,977	5,686,809	3,505,000	9,191,809
(4) City Surplus Reserve Account (From Prior Years)	0	0	0	0	0	0
(5) Total Contribution Offsets Available (3) + (4)	5,195,977	3,780,000	8,975,977	5,686,809	3,505,000	9,191,809
(6) Total Contribution Required (1) x (2)	12,282,856	3,780,000	16,062,856	11,267,266	3,523,632	14,790,898
(7) Unused Offset (5) – (6), not less than 0	0	0	0	0	0	0
(8) Additional Offset Required (6) – (5), not less than 0, from Prepaid Contribution Account	7,086,879	0	7,086,879	5,580,458	18,632	5,599,090
(9) Offset Adjustment	0	0	0	-18,632	18,632	0
(10) Total Contribution Offsets (5) + (9)	5,195,977	3,780,000	8,975,977	5,668,176	3,523,632	9,191,808
(11) Net Additional City Contribution Before Application of Prepaid Employer Contribution Account (6) – (10)	7,086,879	0	7,086,879	5,599,090	0	5,599,090
(12) City's Prepaid Employer Contribution Account Balance (Negative Account Balance Represents Contribution Shortfall)	-2,481,517 ⁽¹⁾	0	-2,481,517 ⁽¹⁾	3,088,481	0	3,088,481
(13) ½ Year Interest on (12)	-102,363	0	-102,363	127,400	0	127,400
(14) City's Fiscal Year Contribution After Application of Prepaid Employer Contribution Account (11) – (12) – (13), not less than 0	9,670,759	0	9,670,759	2,383,209	0	2,383,209
(15) Projected Residual Prepaid Employer Contribution Account at Year End. (12) + (13) – (11), Adjusted with ½ Year Interest, not less than 0 (Negative Account Balance Represents Contribution Shortfall)	0	0	0	-2,481,517 ⁽¹⁾	0	-2,481,517 ⁽¹⁾

⁽¹⁾ Projected contribution shortfall for fiscal year 2009-2010 is due to the difference between the actual and the estimated June 30, 2009 surplus allocated to the City in the June 30, 2008 valuation for offsetting the City's contributions for the 2009/2010 Plan Year.

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

Appendix B (continued)

Allocation of Actuarial Surplus

	June 30	
	2009	2008
Table 5: Calculations for PRSB and PRSB Reserve Account:		
(1) PRSB Allocation of Distributable Actuarial Surplus (Table 3)	\$2,843,404	\$4,513,949
(2) PRSB Reserve Account (as of Valuation Date)	\$3,053,000	\$3,255,000
(3) Estimated July 1 to December 31 PRSB Payment	<u>\$2,585,238</u>	<u>\$2,488,345</u>
(4) Total amount available for PRSB (1) + (2) – (3)	\$3,311,167	\$5,280,604
(5) 95% x (4)	\$3,145,608	\$5,016,574
(6) Number of eligible participants (Retirees & Beneficiaries)	1,344	1,304
(7) Monthly PRSB Benefit for next calendar year (5) / (6) / 12	\$195.04	\$320.59
(8) Target Monthly Benefit	\$729.00	\$824.00
(9) Benefit Shortfall (8) – (7)	\$533.96	\$503.41
(10) Estimated PRSB Reserve Account as of end of next calendar year: (4) – (6) x (7) x 12	\$165,561	\$264,012

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.

Note: The actual, rather than the projected, June 30, 2010 surplus will be used to determine the 2011 calendar year PRSB benefit.

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