#### City of Fresno Employees Retirement System

Actuarial Valuation and Review as of June 30, 2007

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December 4, 2007

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, 2007. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2008-2009 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 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.

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

Sincerely,

THE SEGAL COMPANY

Paul Crylo

By:

Paul Angelo, FSA, MAAA, FCA, EA Senior Vice President and Actuary MYM/hy

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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, 2007. 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, 2007, provided by the Retirement System;
- > The assets of the System as of June 30, 2007, provided by the Retirement System;
- > Economic assumptions regarding future salary increases and investment earnings; and
- > Other actuarial assumptions, regarding employee terminations, retirement, death, etc. that the Board has adopted for the June 30, 2007 valuation.

The City of Fresno Employees Retirement System's basic financial goal is to establish contributions that 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, 2007, 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.

The rates calculated in this report may be adopted by the Board for the fiscal year that extends from July 1, 2008 through June 30, 2009.

#### Significant Issues in Valuation Year

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

- In the June 30, 2006 valuation, the ratio of the valuation value of assets to actuarial accrued liabilities was 138.1%. In this June 30, 2007 valuation, the funding ratio has increased to 146.8%.
- > The Retirement System's prefunded actuarial accrued liability (PAAL) as of June 30, 2006 was \$233.6 million. In this year's valuation, the PAAL has increased to \$295.2 million.
- > The Plan had a net actuarial experience gain of about \$37.5 million. A reconciliation of the System's PAAL is provided in Section 3, Exhibit H.
- The aggregate employer rate calculated in this valuation has remained at 0.00% of payroll. This is the net result of: (i) lower amount of credit required from prepaid employer contributions, (ii) higher than expected return on investments, (iii) higher than expected salary increases, (iv) lower than expected retiree COLA increases, (v) change in actuarial assumptions, (vi) higher actuarial accrued liabilities due to the FORCE settlement and (vii) other experience gains or losses. A reconciliation of the Retirement System's aggregate employer rate is provided in Section 2, Subsection D (see Chart 14).
- The aggregate member rate calculated in this valuation has decreased from 5.06% of payroll to 5.02% of payroll. The change in member rate is due to change in actuarial assumptions and in membership demographics. A reconciliation of the Retirement System's aggregate member rate is provided in Section 2, Subsection D (see Chart 15).
- The results of this valuation reflect changes in economic and non-economic actuarial assumptions adopted by the Board for the June 30, 2007 valuation. With the exception of the continuation of the 8.25% assumed rate of investment return, all of the actuarial assumptions recommended by Segal in the June 30, 2006 biennial experience study have been applied in this valuation. The adopted changes were documented in our Review of Economic Assumptions and our Actuarial Experience Study and are also outlined in Section 4, Exhibit IV of this report.
- As a result of the FORCE settlement, the Retirement System paid out a retroactive lump sum benefit of about \$5.50 million prior to June 30, 2007 for certain retirees.

In a previous cost analysis prepared by the Retirement System's prior actuary, there was an estimate of the additional impact of the FORCE settlement on active members. In that study, it was estimated that the actuarial accrued liability would increase by \$5.48 million and the normal cost <u>rate</u> would increase by 0.47% of payroll (or about a 2.6% increase in the normal cost <u>dollar amount</u> before reflecting the change in actuarial assumptions applied in the June 30, 2007 actuarial valuation).

In this valuation, we have adjusted the liabilities to include the \$5.48 million. As the increase in the normal cost would translate into an increase in payroll includable as pensionable compensation effective with payroll period beginning December 3, 2007, we have assumed the same normal cost <u>rate</u> would be calculated after the FORCE settlement; however, the same normal cost rate when applied to a payroll increased by about 2.6% effective December 3, 2007 would result in a higher normal cost <u>dollar amount</u>.

As indicated in Section 2, Subsection B (see Chart 7) of this report, the total unrecognized investment gains as of June 30, 2007 is \$104.6 million. These investment gains will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years, and will offset any investment losses that may occur after June 30, 2007. 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 gains 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 decrease in each of the next few years.

#### 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.

	June	e 30, 2007	June	30, 2006
Employer Contribution Rates:		Estimated		Estimated
	Total Rate	Annual Amount <sup>(1)</sup>	Total Rate	Annual Amount <sup>(1)</sup>
Normal cost rate	10.56%	\$13,768	10.93%	\$14,256
Surplus offset	-9.79%	-12,769	-7.76%	-10,121
Prepaid contributions	-0.77%	-999	-3.17%	-4,135
Required contributions	0.00%	0	0.00%	0
Average Member Contribution Rates:		Estimated		Estimated
0	Total Rate	Annual Amount (2)	Total Rate	Annual Amount (2
All members (basic only) <sup>(3)</sup>	5.02%	\$5,858	5.06%	\$5,905
Funded Status:				
Actuarial accrued liability	\$631,305		\$613,913	
Valuation value of assets	926,525		847,516	
Funded percentage	146.8%		138.1%	
Prefunded Actuarial Accrued Liability	\$295,220		\$233,603	
Key Economic Assumptions:				
Interest rate	8.25%		8.25%	
Inflation rate	3.75%		4.25%	
Across-the-board salary increase	0.25%		0.00%	

(1) Based on projected fiscal year 2008-2009 annual payroll for active non-DROP and DROP members of \$130,426 and after adjustment to reflect the estimated impact of the additional pay elements includable as pensionable compensation as a result of the FORCE settlement.

<sup>(2)</sup> Based on projected fiscal year 2008-2009 annual payroll for members not in the DROP of \$116,703 and after adjustment to reflect the estimated impact of the additional pay elements includable as pensionable compensation as a result of the FORCE settlement.

<sup>(3)</sup> 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.

	June 30, 2007	June 30, 2006	Percentage Change
Active Members:			
Non-DROP	2,195	2,097	4.7%
Number of members			
Average age	45.4	45.5	N/A
Average service	9.5	9.7	N/A
Projected total compensation <sup>(1)</sup>	\$109,370,886	\$99,875,529	9.5%
Average projected compensation	\$49,827	\$47,628	4.6%
DROP			
Number of members	227	222	2.3%
Average age	60.0	59.8	N/A
Average service	23.5	23.2	N/A
Projected total compensation <sup>(1)</sup>	\$12,861,061	\$11,502,836	11.8%
Average projected compensation	\$56,657	\$51,815	9.3%
Retired Member and Beneficiaries:			
Number of members:			
Service retired	877	849	3.3%
Disability retired	135	131	3.1%
Beneficiaries	294	276	6.5%
Total	1,306	1,256	4.0%
Average age	70.6	70.4	N/A
Average monthly benefit <sup>(2)</sup>	\$1,752	\$1,730	1.3%
Vested Terminated Members:			
Number of vested terminated members <sup>(3)</sup>	190	172	10.5%
Average age	46.6	47.1	N/A
Summary of Financial Data (dollar amounts in thousands):			
Market value of assets	\$1,068,859	\$945,869	13.0%
Return on market value of assets	16.85%	11.66%	N/A
Actuarial value of assets	\$964,301	\$880,947	9.5%
Return on actuarial value of assets	13.53%	10.63%	N/A
Valuation value of assets	\$926,525	\$847,516	9.3%
Return on valuation value of assets	13.17%	10.44%	N/A

(1) June 30, 2006 payroll was projected payroll for plan year 2006/2007. June 30, 2007 payroll was projected payroll for plan year 2007/2008 and before any adjustment to reflect the estimated impact of the additional pay elements includable as pensionable compensation as a result of the FORCE settlement.

<sup>(2)</sup> Excludes supplemental benefits paid from PRSB.

<sup>(3)</sup> Includes terminated members due a refund of member contributions.

#### 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 four valuations can be seen in this chart.

#### CHART 1

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Member Population: 2004 – 2007

Year Ended June 30	Active Members <sup>(1)</sup>	Vested Terminated Members <sup>(2)</sup>	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

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

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

#### **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 2,195 non-DROP active members with an average age of 45.4 years, average years of service of 9.5 and average compensation of \$49,827. The 2,097 non-DROP active members in the prior valuation had an average age of 45.5 years, average service of 9.7 and average compensation of \$47,628.

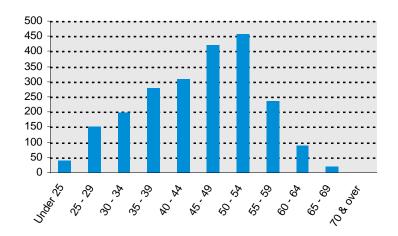
#### **Inactive Members**

In this year's valuation, there were 190 members with a vested right to a deferred or immediate vested benefit or entitled to a return of their member contributions versus 172 in the prior valuation.

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

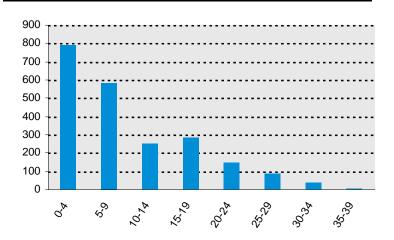
#### CHART 2

Distribution of Non-DROP Active Members by Age as of June 30, 2007



#### CHART 3

Distribution of Non-DROP Active Members by Years of Service as of June 30, 2007



#### **DROP** Active Members

In this year's valuation there were 227 DROP active members with an average age of 60.0 years, average years of service of 23.5, and average compensation of \$56,657. The 222 DROP active members in the prior valuation had an average age of 59.8 years, average years of service of 23.2, and average compensation of \$51,815.

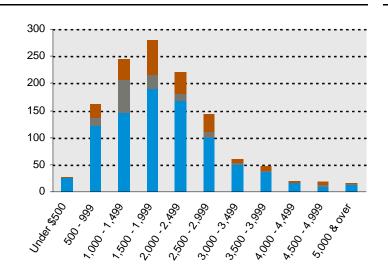
#### **Retired Members and Beneficiaries**

As of June 30, 2007, 1,012 retired members and 294 beneficiaries were receiving total monthly benefits of \$2,286,676. For comparison, in the previous valuation, there were 980 retired members and 276 beneficiaries receiving monthly benefits of \$2,172,617.

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

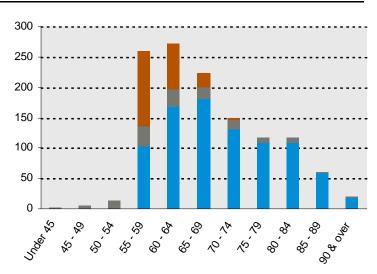
#### CHART 4

Distribution of Retired Members (Excl. Beneficiaries) by Type and by Monthly Amount as of June 30, 2007



#### CHART 5

Distribution of Retired Members (Excl. Beneficiaries) by Type and by Age as of June 30, 2007



DROP

Disability

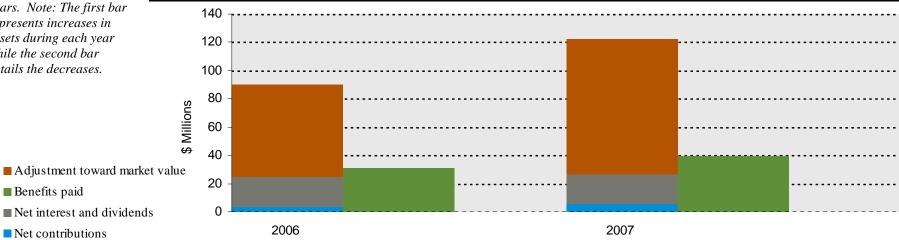
Service

#### **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.

#### CHART 6

Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended June 30, 2006-2007



The chart depicts the components of changes in the actuarial value of assets over the last two years. Note: The first bar represents increases in assets during each year while the second bar details the decreases. It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board of Retirement has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable. The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value of assets.

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

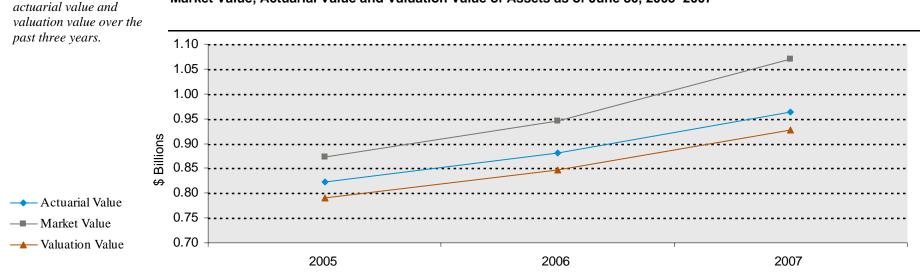
The chart shows the determination of the actuarial value of assets as of the valuation date.

Plan Year Ending June 30	Total Actual Market Return	Expected Market Return*	Investment Gain/(Loss)	Deferred Factor	Deferred Return
2003	N/A	N/A	\$ 4,727,250	0.0	\$ (
2004	N/A	N/A	68,905,645	0.2	13,781,129
2005	\$ 83,471,311	\$ 60,275,976	23,195,335	0.4	9,278,134
2006	100,177,718	70,874,321	29,303,398	0.6	17,582,039
2007	156,545,863	76,650,021	79,895,842	0.8	63,916,674
. Total Deferred Return					\$ 104,557,976
. Net Market Value of Assets	5				1,068,859,346
. Actuarial Value of Assets (	Item 2 – Item 1)				\$ 964,301,370
. Non-Valuation Reserves					37,776,000
. Valuation Value of Assets (	Item $3 - $ Item $4$ )				\$ 926.525.370

\* Based on expected return on market value of assets effective June 30, 2006.

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 asset value 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.

**CHART 8** 



#### Market Value, Actuarial Value and Valuation Value of Assets as of June 30, 2005–2007

This chart shows the change in market value,

#### C. ACTUARIAL EXPERIENCE

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

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

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

The total experience gain was \$37.5 million, including a gain of \$40.9 million from investments and a loss of \$3.5 million from all other sources. The net experience variation from individual sources other than investments was 0.6% 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, 2007

1.	Net gain/(loss) from investments <sup>(1)</sup>	\$40,940,000
2.	Net gain/(loss) from other experience <sup>(2)</sup>	-3,486,000
3.	Net experience gain/(loss): $(1) + (2)$	\$37,454,000

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

<sup>(2)</sup> See Section 3, Exhibit H.

#### **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, 2006 valuation). The actual rate of return on a valuation basis for the 2007 plan year was 13.17%.

Since the actual return for the year was more than the assumed return, the Retirement System experienced an actuarial gain during the year ended June 30, 2007 with regard to its investments.

### This chart shows the

CHART 10

gain/(loss) due to investment experience.

Investment Experience for Year Ended June 30, 2007 – Valuation Value and Actuarial Value of Assets

	Valuation Value	Actuarial Value
1. Actual return	\$109,598,151	\$116,910,064
2. Average value of assets	\$832,221,445	\$864,168,989
3. Actual rate of return: $(1) \div (2)$	13.17%	13.53%
4. Assumed rate of return	8.25%	8.25%
5. Expected return: $(2) x (4)$	\$68,658,269	\$71,293,942
6. Actuarial gain/(loss): $(1) - (5)$	<u>\$40,939,882</u>	<u>\$45,616,122</u>

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 three years. Based on the assumptions adopted by the Board for the June 30, 2007 valuation, we have maintained the investment return assumption at 8.25%.

#### CHART 11

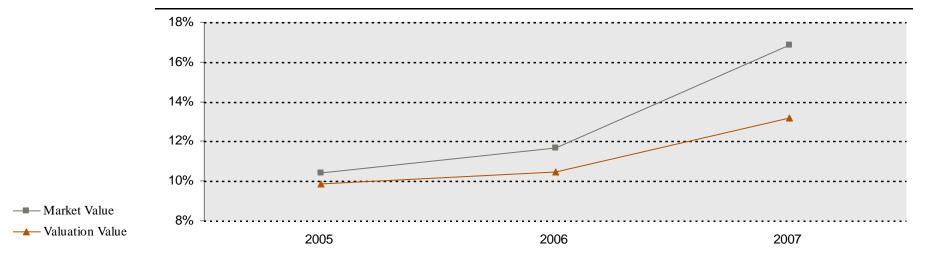
Investment Return – Actuarial Value, Valuation Value and Market Value: 2005 – 2007

				Market Investmen	
Amount	Percent	Amount	Percent	Amount	Percent
\$67,602,316	9.84%	N/A	N/A	\$83,471,311	10.42%
81,292,494	10.44%	\$85,932,037	10.63%	100,177,718	11.66%
109,598,151	13.17%	116,910,064	13.53%	156,545,863	16.85%
	Amount \$67,602,316 81,292,494	\$67,602,316 9.84% 81,292,494 10.44%	Investment Return         Investment           Amount         Percent         Amount           \$67,602,316         9.84%         N/A           \$1,292,494         10.44%         \$85,932,037	Investment Return         Investment Return           Amount         Percent         Amount         Percent           \$67,602,316         9.84%         N/A         N/A           \$1,292,494         10.44%         \$85,932,037         10.63%	Investment Return         Investment Return         Investment           Amount         Percent         Amount         Percent         Amount           \$67,602,316         9.84%         N/A         N/A         \$83,471,311           \$1,292,494         10.44%         \$85,932,037         10.63%         100,177,718

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, 2007



#### **Other Experience**

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

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

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

The net loss from this other experience for the year ended June 30, 2007 amounted to \$3.5 million which is 0.6% of the actuarial accrued liability. See Exhibit H for a detailed development of the prefunded actuarial accrued liability.

#### **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 (§2-1817).

#### CHART 13

#### **Recommended Employer Contribution Rates (Dollar Amounts in Thousands)**

		June 30, 2007		June 30, 2006
	<u>Rate</u>	Estimated <u>Annual Amount*</u>	<u>Rate</u>	Estimated <u>Annual Amount*</u>
All Categories Combined				
Normal Cost	10.56%	\$13,768	10.93%	\$14,256
Surplus Offset	-9.79%	-12,769	-7.76%	-10,121
Prepaid Contribution	-0.77%	-999	-3.17%	-4,135
Total Contribution	0.00%	\$0	0.00%	\$0

\* Amounts are in thousands and are based on projected fiscal year 2008 – 2009 annual payroll for active non-DROP and DROP members and after adjustment to reflect the estimated impact of the additional pay elements includable as pensionable compensation as a result of the FORCE settlement (also in thousands):

Payroll

130,426

\$

The employer contribution rates as of June 30, 2007 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.

#### CHART 14

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

Reconciliation of Recommended Employer Contribution from June 30, 2006 to June 30, 2007 (Dollars in Thousands)

	Contribution Rate	Estimated Amount*
Recommended Contribution Rate as of June 30, 2006	0.00%	\$0
Effect of actuarial experience during 2006:		
1. Effect of investment gain	-2.00%	-\$2,609
2. Effect of higher than expected salary increases	0.36%	\$470
3. Effect of lower than expected retiree COLA increases	-0.18%	-\$235
4. Effect of change in actuarial assumptions	-1.70%	-\$2,217
5. Effect of higher actuarial accrued liability due to FORCE Settlement	0.54%	\$704
6. Effect of other experience (gain)/loss	0.58%	\$751
7. Effect of lower credit required from prepaid employer contributions	2.40%	\$3,136
Subtotal	0.00%	\$0
Recommended Contribution Rate as of June 30, 2007	0.00%	\$0

\* Based on projected fiscal year 2008-2009 payroll of \$130,426 and after adjustment to reflect the estimated impact of the additional pay elements includable as pensionable compensation as a result of the FORCE settlement.

The member contribution rates as of June 30, 2007 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

#### **Reconciliation of Recommended Member Contribution** Rate

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

#### CHART 15

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

#### Reconciliation of Recommended Member Contribution from June 30, 2006 to June 30, 2007 (Dollar Amounts in Thousands)

	Contribution Rate	Estimated Amount <sup>(1)</sup>
Average Contribution Rate as of June 30, 2006 (Basic Only) <sup>(2)</sup>	5.06%	\$5,905
1. Effect of change in actuarial assumptions	-0.06%	-\$76
2. Effect of change in membership demographic	0.02%	<u>\$29</u>
Subtotal	-0.04%	-\$47
Average Contribution Rate as of June 30, 2007 (Basic Only) <sup>(2)</sup>	5.02%	\$5,858

(1) Based on projected fiscal year 2008-2009 payroll for members NOT in the DROP of \$116,703 and after adjustment to reflect the estimated impact of the additional pay elements includable as pensionable compensation as a result of the FORCE settlement.

(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.

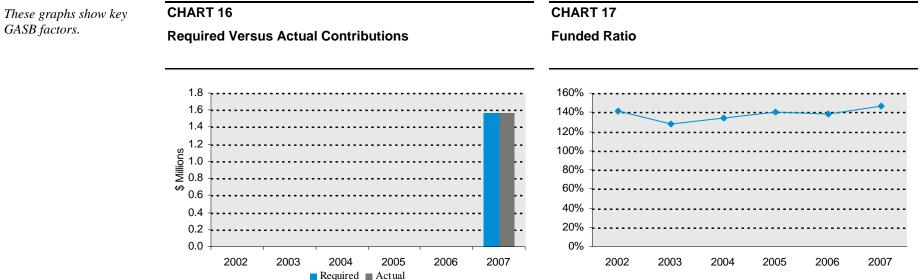
#### **E. INFORMATION REQUIRED BY GASB**

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 actuarial 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.



#### EXHIBIT A

#### Table of Plan Coverage

	Year Ende	d June 30	
Category	2007	2006	Change From Prior Year
Active members in valuation			
Non-DROP			
Number	2,195	2,097	4.7%
Average age	45.4	45.5	N/A
Average service	9.5	9.7	N/A
Projected total compensation	\$109,370,886 <sup>(2)</sup>	\$99,875,529	9.5%
Projected average compensation	\$49,827	\$47,628	4.6%
Member account balances	\$91,230,023	\$88,537,818	3.0%
Total active vested members	1,403	1,354	3.6%
DROP			
Number	227	222	2.3%
Average age	60.0	59.8	N/A
Average service	23.5	23.2	N/A
Projected total compensation	\$12,861,061 <sup>(2)</sup>	\$11,502,836	11.8%
Projected average compensation	\$56,657	\$51,815	9.3%
Vested terminated members			
Number	190	172	10.5%
Average age	46.6	47.1	N/A
Retired members			
Number in pay status	877	849	3.3%
Average age	70.6	70.6	N/A
Average monthly benefit <sup>(1)</sup>	\$1,975	\$1,947	1.4%
Disabled members			
Number in pay status	135	131	3.1%
Average age	63.5	62.7	N/A
Average monthly benefit <sup>(1)</sup>	\$1,677	\$1,612	4.0%
Beneficiaries			
Number in pay status	294	276	6.5%
Average age	74.0	73.8	N/A
Average monthly benefit <sup>(1)</sup>	\$1,121	\$1,122	-0.1%

(1) Excludes supplemental benefits paid from PRSB.

(2) Before any adjustment to reflect the estimated impact of the additional pay elements includable as pensionable compensation as a result of the FORCE settlement.

## EXHIBIT B

Members in Active Service and Projected Average Compensation	
By Age, Years of Service as of June 30, 2007 – Non-DROP Active	
Members Only*	
•	

Years of Service										
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	40	40								
	\$36,373	\$36,373								
25 - 29	150	128	21	1						
	42,350	41,614	\$47,125	\$36,261						
30 - 34	196	118	63	14	1					
	45,049	43,827	46,800	47,556	\$43,821					
35 - 39	278	137	105	32	3	1				
	47,268	44,113	50,800	49,385	48,754	\$36,349				
40 - 44	309	112	93	45	47	12				
	51,396	49,840	49,706	58,261	51,935	51,167				
45 - 49	420	106	103	43	91	61	15	1		
	51,916	49,148	50,577	52,195	52,535	56,830	\$57,421	\$32,656		
50 - 54	458	70	104	54	84	55	61	29	1	
	52,559	52,046	49,639	50,077	54,123	56,640	52,914	55,858	\$53,271	
55 - 59	236	63	68	36	42	9	8	7	3	
	51,696	56,645	49,327	46,256	52,305	50,090	50,560	52,856	63,316	
60 - 64	88	15	23	22	14	9	3	2		
	52,839	57,874	47,887	49,552	59,004	52,704	54,406	63,273		
65 - 69	19	3	6	6	4					
	49,814	57,755	40,836	49,295	58,103					
70 & over	1					1				
	38,645					38,645				
Total	2,195	792	586	253	286	148	87	39	4	
	\$49,827	\$46,770	\$49,432	\$51,003	\$53,193	\$55,378	\$53,526	\$55,105	\$60,804	

\* Excludes 227 active members in DROP with projected average compensation of \$56,657.

Note: Before any adjustment to reflect the estimated impact of the additional pay elements includable as pensionable compensation as a result of the FORCE settlement.

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

#### EXHIBIT C

	Non-DROP Active Members	Vested Terminated Members	Pensioners/ DROP	Disableds	Beneficiaries	Total
Number as of June 30, 2006	2,097	172	1,071**	131	276	3,747
New members	265	0	0	0	0	265
Terminations – with vested rights	-28	28	0	0	0	0
Contributions refunds	-72	-4	0	0	0	-76
Retirements/DROP	-62	-7	69	0	0	0
New disabilities	-2	0	-4	6	0	0
Return to work	1	-1	0	0	0	0
Died with or without beneficiary	-4	-1	-32	-2	18*	-21
Data adjustments	0	3	0	0	0	3
Number as of June 30, 2007	2,195	190	1,104**	135	294	3,918

Reconciliation of Member Data – June 30, 2006 to June 30, 2007

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

\*\* Includes 222 and 227 active members in DROP as of June 30, 2006 and June 30, 2007, respectively.

#### EXHIBIT D

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

	Year Ended J	une 30, 2007	Year Ended June 30, 2006		
Contribution income:					
Employer contributions	\$1,566,215		\$ 0		
Employee contributions	5,094,188		4,643,172		
Less administrative expenses	<u>-916,494</u>		<u>-797,948</u>		
Net contribution income		\$5,743,909		\$3,845,224	
Investment income:					
Interest, dividends and other income	\$27,212,644		\$25,926,508		
Adjustment toward market value	95,922,805		65,290,699		
Less investment fees	-6,225,385		-5,285,169		
Net investment income		116,910,064		85,932,038	
Total income available for benefits		\$122,653,973		\$89,777,262	
Less benefit payments:					
Benefit payments	-\$34,981,738		-\$27,261,190		
Post retirement supplemental benefits	-2,966,913		-2,148,543		
Refunds of contributions	-1,350,623		-1,218,580		
Net benefit payments		-\$39,299,274		-\$30,628,313	
Change in reserve for future benefits		\$83,354,699		\$59,148,949	

#### EXHIBIT E

#### Summary Statement of Assets

	Year Ended June 30,					
-	20	07	2006			
Cash equivalents		\$1,052,742		\$2,172,746		
Accounts receivable:						
Receivables for investments sold	\$10,587,588		\$5,030,404			
Interest and dividends	3,943,424		3,667,943			
Other receivables	1,745,143		915,296			
Total accounts receivable		16,276,155		9,613,643		
Investments:						
Domestic and international equity	\$634,015,439		\$547,605,276			
Government and corporate bonds	283,385,347		261,107,904			
Real estate	103,368,602		97,690,444			
Emerging market equity	35,041,302		28,450,086			
Collateral held for securities lent	205,424,694		175,665,863			
Other investments	25,017,400		17,211,652			
Total investments at market value		1,286,252,784		1,127,731,225		
Total assets		\$1,303,581,681		\$1,139,517,614		
Less accounts payable:						
Collateral held for securities lent	-\$205,424,694		-\$175,665,863			
Payable for investments and foreign currency purchased	-20,665,733		-11,536,212			
Prepaid employer contributions	-4,123,947		-5,272,912			
Other liabilities	-4,507,961		-1,173,779			
Total accounts payable		-\$234,722,335		-\$193,648,766		
Net assets at market value		<u>\$1,068,859,346</u>		<u>\$945,868,848</u>		
Net assets at actuarial value		<u>\$964,301,370</u>		<u>\$880,946,671</u>		
Net assets at valuation value		<u>\$926,525,370</u>		<u>\$847,515,671</u>		

#### **EXHIBIT F**

#### **Actuarial Balance Sheet**

An overview of your 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	\$926,525
2. Present value of future member normal cost	54,535
3. Present value of future employer normal cost	131,981
4. Unfunded /(prefunded) actuarial accrued liability	-295,220
5. Total current and future assets	\$817,821
Liabilities	
6. Present value of benefits already granted, excludes current active DROP	\$308,770
7. Present value of benefits for current active DROP	85,016
8. Present value of benefits to be granted	424,035
9. Total liabilities	\$817,821

#### EXHIBIT G

Summary of Reported Asset Information as of June 30, 2007

	Reserves(\$000)
Employer Advance/Retired Reserves	\$ 661,619
Reserve for Market Contingencies	261,011
Active Member Reserves	103,769
Other Reserves	4,684
DROP Reserve <sup>(1)</sup>	35,813
Reserve for PRSB <sup>(1)</sup>	1,963
Reserve for City Surplus <sup>(1)</sup>	0
Net Assets Held in Trust for Benefits	\$1,068,859
<sup>(1)</sup> Non-valuation reserve	

#### EXHIBIT H

Development of Unfunded/(Prefunded) Actuarial Accrued Liability as of June 30, 2007

		(Dollar amounts in Thousands)
1	Unfunded/(Prefunded) actuarial accrued liability at beginning of year	-\$233,603
2	Gross Normal Cost at middle of year	21,177
3	Actual employer and member contributions	-6,660
4	Interest (whole year on $(1)$ plus half year on $(2) + (3)$ )	18,674
5	Expected unfunded/(prefunded) actuarial accrued liability at end of year	-\$237,760
6	Actuarial (gain)/loss due to all changes:	
	Experience (gain)/loss	
	a. Gain from investment	-\$40,940
	b. Higher than expected salary increase	7,306
	c. Lower than expected benefit increases for continuing retirees	-3,785
	d. Other experience (gain)/loss	-35
	Other changes	
	e. FORCE settlement retroactive lump sum payments	5,500
	f. Additional actuarial accrued liabilities due to FORCE settlement	5,480
	g. Change in actuarial assumptions	<u>-30,986</u>
	h. Subtotal*	-\$57,460
7	Actual unfunded/(prefunded) actuarial accrued liability at end of year	-\$295,220

\* The net actuarial experience gain was \$37,454 if we exclude the impact of the change in the actuarial assumptions (item 6g) and the FORCE settlement (items 6e and 6f).

#### 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 noncompliance 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 \$180,000 for 2007 and \$185,000 for 2008. 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.

#### EXHIBIT J

Normal Cost:

Actuarial Accrued Liability For Actives:

**Actuarial Accrued Liability** 

For Pensioners:

Unfunded (Prefunded) Actuarial Accrued Liability:

#### **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) <u>Investment return</u> 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) <u>Mortality rates</u> the death rates of employees and pensioners; life expectancy is based on these rates;
- (c) <u>Retirement rates</u> the rate or probability of retirement at a given age;
- (d) <u>Turnover rates</u> the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

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

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

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.

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.

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 capital gains and losses to avoid significant swings in the value of assets from one year to the next.

## EXHIBIT I

Supplementary Information Required by GASB – Schedule of Employer Contributions

Plan Year Ended June 30	Annual Required Contributions	Actual Contributions	Percentage Contributed
2002	0	0	100.0%
2003	0	0	100.0%
2004	0	0	100.0%
2005	0	0	100.0%
2006	0	0	100.0%
2007	\$1,566,215	\$1,566,215	100.0%

### 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 (b) – (a)	Funded Ratio (%) (a) / (b)	Covered Payroll (c)	Prefunded AAL as a Percentage of Covered Payroll (%) [(b) – (a)] / (c)
6/30/2002	\$748,762	\$529,805	\$218,957	141.3	\$93,086	235.2
6/30/2003	698,885	545,687	153,198	128.1	97,349	157.4
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 <sup>(1)</sup>	241.5

(1) June 30, 2007 payroll was projected payroll for plan year 2007/2008 and before any adjustment to reflect the estimated impact of the additional pay elements includable as pensionable compensation as a result of the FORCE settlement.

## EXHIBIT III

## Supplementary Information Required by GASB

Valuation date	June 30, 2007			
Actuarial cost method	Projected Unit Credit Cost Method Level percent of payroll for total Unfunded Actuarial Accrued Liability or Prefunded Actuarial Accrued Liability			
Amortization method				
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 market return and expected return on actuarial 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, PRSB Reserve and City Surplus).			
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	1,306			
Terminated members entitled to, but not yet receiving benefits	190			
DROP members	227			
Active members	<u>2,195</u>			
Total	3,918			

\* 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

Post – Retirement Mortality Rates:	
Healthy:	1994 Group Annuity Mortality Table (separate tables for males and females).
Disabled:	1981 General Disability Mortality Table set back four years.
Employee Contribution Rates and Optional Benefits:	1994 Group Annuity Mortality Table for males weighted 65% and 1994 Group Annuity Mortality Table for females weighted 35%.
	Please note that in determining optional benefits for disabled members, the 1981 General Disability Mortality Table set back four years is used instead.

## **Termination Rates Before Retirement:**

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	

Rate (%)

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

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

Disability			
Age	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	

**Rate (%)** 

All disabilities are assumed to be non-service connected.

## **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

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

Vested Termination (Deferred Vested Benefit)		
Age	<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	

# **Retirement Rates:**

Age	<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
DROP Assumptions:	Male and Female
First Year Eligible	40%
Second Year Eligible	15%
Third Year Eligible	10%
Fourth Year Eligible	10%
Thereafter	None
Members are assumed to remain in DRC	OP 4 years

<b>SECTION 4:</b>	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 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.

	Annual Rate of Compensation Increase				
		year; plus 0.25% across-the-board salary owing Merit and Promotion increases ears of service.			
	Years of Service	Annual Increase			
	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:		of Assets is determined by phasing in any difference between 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:	Based on the Experience Study and Review of Economic Assumptions, the following assumptions were changed. Previously these assumptions were as follows:
Post – Retirement Mortality Rates:	
Healthy:	1994 Uninsured Pensioners Mortality Table (separate tables for males and females). For males, the table is with no set back. For females, the table is set back one year.
Disabled:	1981 General Disability Mortality Table set back three years.
Employee Contribution Rates	
and Optional Benefits:	1994 Uninsured Pensioner Mortality Table, for females with a two-year set forward.
	Please note that in determining optional benefits for disabled members, the 1981 General Disability Mortality Table set back three years is used instead.

**Termination Rates Before Retirement:** 

	Rule (70)	
	Mortality	
Age	Male	Female
25	0.05	0.03
30	0.07	0.04
35	0.07	0.05
40	0.09	0.08
45	0.13	0.10
50	0.21	0.15
55	0.36	0.25
60	0.65	0.48
65	1.17	0.93

**Rate (%)** 

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

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

## **Rate (%)**

	Withdrawal (Refund of Contributions)													
	0-1	Yrs	1-2	2 Yrs	2-3	3 Yrs	3-4	4 Yrs	4-5	5 Yrs	5-9	9 Yrs	10	+ Yrs
Age	Male	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	Male	<u>Female</u>	Male	<u>Female</u>	<u>Male</u>	<u>Female</u>	Male	<u>Female</u>
20	12.00	15.60	7.20	7.20	6.00	7.20	6.00	6.00	3.00	5.00	3.00	7.50	3.00	5.00
25	12.00	15.60	7.20	7.20	6.00	7.20	6.00	6.00	3.00	5.00	3.00	7.50	3.00	5.00
30	12.00	15.60	7.20	7.20	6.00	7.20	6.00	6.00	3.00	5.00	3.00	7.50	3.00	5.00
35	12.00	15.60	7.20	7.20	6.00	7.20	6.00	6.00	3.00	5.00	2.13	4.50	1.90	2.50
40	12.00	15.60	7.20	7.20	6.00	7.20	6.00	6.00	3.00	5.00	1.98	3.00	1.40	1.00
45	12.00	15.60	7.20	7.20	6.00	7.20	6.00	6.00	3.00	5.00	1.80	3.00	0.95	0.75
50	12.00	15.60	7.20	7.20	6.00	7.20	6.00	6.00	3.00	5.00	1.45	1.50	0.75	0.75
55	12.00	15.60	7.20	7.20	6.00	7.20	6.00	6.00	3.00	5.00	1.20	0.75	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.95	0.15	0.00	0.00

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

## **Rate (%)**

Vested Termination (Deferred Vested Benefit)			
Age	Male	Female	
20	0.00	0.00	
25	0.00	0.00	
30	1.00	2.25	
35	1.00	2.25	
40	1.40	2.25	
45	2.00	2.00	
50	1.50	2.00	
55	1.40	1.80	
60	0.00	0.00	

Retirement Rates:	<b>Rate (%)</b>	
Age	Male	<u>Female</u>
55	12.27	13.00
56	6.32	7.00
57	7.37	3.50
58	7.70	3.80
59	7.88	8.00
60	7.91	10.00
61	9.38	13.50
62	13.50	22.00
63	9.75	12.00
64	9.75	12.00
65	18.71	30.00
66	20.57	15.00
67	30.01	12.50
68	38.21	22.50
69	45.86	26.00
70	100.00	100.00
DROP Assumptions:	Male and Female	
First Year Eligible	45%	
Second Year Eligible	15%	
Third Year Eligible	10%	
Fourth Year Eligible	10%	
Thereafter	None	

Members are assumed to remain in DROP 4 years

Percent Married:	80% of male members; 60% of female members.				
<b>Consumer Price Index:</b>	Increase of 4.25% per year, retiree COLA increases due to CPI are limited to maximum at 4.25% per year.				
Salary Increases:					
	Annual Rate of Compensation Increase				
	Inflation: 4.25% per year; plus 0.00% across-the-board salary				
	increase; plus the following Merit and Promotion increases				
	based on completed years of service.				
	Years of Service Annual Increase				

Years of Service	Annual Increase
0	7.75%
1	5.75%
2	4.75%
3	3.45%
4	2.85%
5	1.85%
6	0.85%
7	0.65%
8	0.45%
9+	0.05%

#### 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.
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 (§2-1801).
Service:	Years of service (Yrs).
Service Retirement Eligibility:	Age 55 (age 50 in certain layoff situations) with 5 years of service (§2-1832).

## 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 (§2-1833):

Age	<b>Factor</b>	Age	<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

### **Deferred Retirement Option** (**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 (§2-1852).

dinary or Service Connector	ed Disability:
Eligibility	Ten years of service (§2-1837).
Benefit Formula	Greater of 1.8% * FAS * Yrs, 33.33% of FAS, or Service Retirement benefit (§2-1838).
-Retirement Death:	
All Members	
Eligibility	None.
Benefit	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 (§2-1829).
Vested Members:	
A1. Eligibility	At least five years of service but ineligible for Service Retirement at death (§2-1840.3).
B1. Benefit	50% of Service Retirement Benefit as if the member were age 55 based on years of service at death (§2-1840.3).
	or
A2. Eligibility	Eligible for Service Retirement
B2. Benefit	50% of Service Retirement Benefit based on benefit due on member's date of death (§2-1840.3).

SECTION 4:	Reporting Information for the City	y of Fresno Emplo	yees Retirement System
			,

Death After Retirement:	
<u>All Members</u>	
Service or	
Disability Retirement	50% of member's unmodified allowance continued to eligible spouse/domestic partner (§2-1840.1).
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 (§2-1827).
Post-retirement	
Cost-of-Living Benefits:	Future changes based on Consumer Price Index to a maximum of 5% per year (§2-1840.4).

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 (§2-1817).
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 (§2-1853). 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.

#### Appendix A

#### **Member Contribution Rates**

Breakdown of member rate between basic and COLA calculated in the June 30, 2007 and June 30, 2006 valuation:

			Jun	e 30, 2007 Ac	tuarial Val	rial Valuation			June 30, 2006 Actuarial Valuation							
	BA	ASIC		, Before is Offset	Surplu	s Offset	TO	ΓAL	BA	ASIC		A, Before us Offset	Surplu	is Offset	то	TAL
	Rate	Estimated Annual <u>Amt*</u>	Rate	Estimated Annual <u>Amt**</u>	Rate	Estimated Annual <u>Amt**</u>	Rate	Estimated Annual <u>Amt*</u>	Rate	Estimated Annual <u>Amt*</u>	Rate	Estimated Annual <u>Amt**</u>	Rate	Estimated Annual <u>Amt**</u>	Rate	Estimated Annual <u>Amt*</u>
All Members	5.02%	\$5,858	2.54%	\$3,308	-2.54%	-\$3,308	5.02%	\$5,858	5.06%	\$5,905	2.97%	\$3,874	-2.97%	-\$3,874	5.06%	\$5,905

\* Amounts are in thousands and are based on the projected fiscal year 2008 – 2009 annual payroll for members NOT in the DROP (also in thousands):

Payroll (excluding DROP members) \$116,703

\*\* Currently paid for by actuarial surplus (see Appendix B). Amounts are in thousands and are based on the projected fiscal year 2008 – 2009 annual payroll for active non-DROP and DROP members (also in thousands):

Payroll (including DROP members) \$130,426

Note: The above payrolls have been adjusted to reflect the estimated impact of the additional pay elements includable as pensionable compensation as a result of the FORCE settlement.

## Appendix A

**Member Contribution Rates (Continued)** 

Entry Age	Basic	COLA	Surplus Offset	Total
16	2.61%	1.32%	-1.32%	2.61%
17	2.70%	1.37%	-1.37%	2.70%
18	2.80%	1.41%	-1.41%	2.80%
19	2.89%	1.46%	-1.46%	2.89%
20	2.99%	1.51%	-1.51%	2.99%
21	3.10%	1.57%	-1.57%	3.10%
22	3.21%	1.62%	-1.62%	3.21%
23	3.33%	1.68%	-1.68%	3.33%
24	3.46%	1.75%	-1.75%	3.46%
25	3.59%	1.81%	-1.81%	3.59%
26	3.73%	1.89%	-1.89%	3.73%
27	3.88%	1.96%	-1.96%	3.88%
28	4.04%	2.04%	-2.04%	4.04%
29	4.20%	2.13%	-2.13%	4.20%
30	4.38%	2.22%	-2.22%	4.38%
31	4.48%	2.27%	-2.27%	4.48%
32	4.59%	2.32%	-2.32%	4.59%
33	4.69%	2.37%	-2.37%	4.69%
34	4.80%	2.42%	-2.42%	4.80%
35	4.91%	2.48%	-2.48%	4.91%
36	5.02%	2.54%	-2.54%	5.02%
37	5.13%	2.60%	-2.60%	5.13%
38	5.25%	2.66%	-2.66%	5.25%
39	5.38%	2.72%	-2.72%	5.38%
40	5.50%	2.78%	-2.78%	5.50%

#### Members' Contribution Rates based on the June 30, 2007 Actuarial Valuation as a percentage of payroll

## 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%	2.85%	-2.85%	5.63%
42	5.77%	2.92%	-2.92%	5.77%
43	5.91%	2.99%	-2.99%	5.91%
44	6.07%	3.07%	-3.07%	6.07%
45	6.23%	3.15%	-3.15%	6.23%
46	6.38%	3.23%	-3.23%	6.38%
47	6.54%	3.30%	-3.30%	6.54%
48	6.69%	3.38%	-3.38%	6.69%
49	6.81%	3.44%	-3.44%	6.81%
50	6.89%	3.48%	-3.48%	6.89%
51	6.95%	3.51%	-3.51%	6.95%
52	6.95%	3.51%	-3.51%	6.95%
53	6.91%	3.50%	-3.50%	6.91%
54	6.80%	3.44%	-3.44%	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

#### Appendix B

Allocation of Actuarial Surplus

	June 30	
	2007	2006
Surplus as of Date of Valuation (Table 1)	\$295,220,367	\$233,602,592
Actuarial Surplus (Table 1)	232,089,867	172,211,284
Distributable Actuarial Surplus as of date of valuation (Table 2)	21,060,251	15,393,069
Allocation of Distributable Surplus as of Date of Valuation:		
Member COLA Contribution Offset (Table 3)	3,444,000	3,406,000
City COLA Contribution Offset (Table 3)	3,444,000	3,406,000
Additional City Allocation (Table 3)	9,448,167	5,720,713
PRSB Allocation (Table 3)	4,724,084	<u>2,860,356</u>
Total	\$21,060,251	\$15,393,069
Allocation of Distributable Surplus as of Date of Next Valuation:		
Member COLA Contribution Offset (Table 3)	3,308,000	3,444,000
City COLA Contribution Offset (Table 3)	3,308,000	3,444,000
Additional City Allocation (Table 3)	9,461,231	5,561,556

The Allocation of Distributable Actuarial Surplus is sufficient to:

- Provide for member and City COLA contribution requirements for the 2008-2009 fiscal year;

- Provide for a portion of the City's contribution requirement for the 2008-2009 fiscal year (Table 4) and;

- Provide a PRSB benefit of \$318.04 per month over the 2008 calendar year (Table 5).

Allocation of Actuarial Surplus

		June 30	
		2007	2006
Table	1: Calculation of Actuarial Surplus		
(1)	Valuation Value of Assets	\$926,525,370	\$847,515,671
(2)	Actuarial Accrued Liability	631,305,003	613,913,079
(3)	Surplus: (1) – (2)	295,220,367	233,602,592
(4)	Contingency Reserve: 10% x (2)	63,130,500	61,391,308
(5)	Actuarial Surplus: (3) – (4)	232,089,867	172,211,284
Table	2: Determination of Distributable Actuarial Surplus		
(1)	Actuarial Surplus (Table 1)	\$232,089,867	\$172,211,284
(2)	Amortization of Balance of Actuarial Surplus:		
	a. Amortization Period	15	15
	b. Amortization Factor	0.090742	0.089385
	c. Amortization of Balance of Actuarial Surplus (1) x (2b)	\$21,060,251	\$15,393,069
(3)	Projected Surplus for Next Year	\$229,308,295	\$170,390,682
	1.0825 x (1) – 1.04125 x (2c):		
(4)	Amortization of Balance of Projected Actuarial Surplus:		
	a. Amortization Period	15	15
	b. Amortization Factor	0.090742	0.089385
	<ul> <li>c. Amortization of Balance of Actuarial Surplus:</li> <li>(3) x (4b)</li> </ul>	\$20,807,846	\$15,230,335

#### **Allocation of Actuarial Surplus**

	June 30	
	2007	2006
Table 3: Allocation of Distributable Actuarial Surplus:		
(1) Distributable Actuarial Surplus (Table 2)	\$21,060,251	\$15,393,069
<ul><li>(2) Expected COLA contributions for next following fiscal year (from prior year's Actuarial Report)</li></ul>		
a. City	3,444,000	3,406,000
b. Members	<u>3,444,000</u>	<u>3,406,000</u>
c. Total	\$6,888,000	\$6,812,000
<ul><li>(3) Net Distributable Actuarial Surplus as of date of valuation: (1) – (2c)</li></ul>	14,172,251	8,581,069
(4) Additional City Allocation: (3) x $^{2}/_{3}$	9,448,167	5,720,713
(5) PRSB Allocation: $(3) - (4)$	4,724,084	2,860,356
<ul><li>(6) Next Year Projected Distributable Actuarial Surplus (Table 2)</li></ul>	20,807,846	15,230,335
<ul><li>(7) Expected COLA contributions for second following fiscal year (from current year's Actuarial Report)</li></ul>		
a. City	3,308,000	3,444,000
b. Members	<u>3,308,000</u>	<u>3,444,000</u>
c. Total	\$6,616,000	\$6,888,000
<ul> <li>(8) Net Projected Distributable Actuarial Surplus as of date of next valuation: (6) – (7c)</li> </ul>	14,191,846	8,342,335
(9) Additional City Allocation: (8) x $^{2}/_{3}$	9,461,231	5,561,556

The June 30, 2007 PRSB Allocation (along with the PRSB Reserve Account) is available to provide retirees and beneficiaries as of June 30, 2007 a monthly PRSB benefit as derived in Table 5.

The City Allocation (Items 7a and 9) 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.

## Allocation of Actuarial Surplus

		Fis	cal Year 2008	-2009	Fis	cal Year 2007	-2008
Fable	4: City Contribution Requirements	Basic	COLA	<u>Total</u>	Basic	COLA	<u>Total</u>
(1)	City normal cost rate	8.02%	2.54%	10.56%	7.96%	2.97%	10.93%
(2)	(a)Projected Annual Payroll, before reflecting FORCE settlement	\$127,121,000	\$127,121,000	\$127,121,000	\$122,232,000	\$122,232,000	\$122,232,000
	(b)Increase in Payroll due to FORCE settlement	\$3,305,000	\$3,305,000	\$3,305,000	\$1,854,000	\$1,854,000	\$1,854,000
	(c)Total Estimated Payroll, after Reflecting FORCE settlement	\$130,426,000	\$130,426,000	\$130,426,000	\$124,086,000	\$124,086,000	\$124,086,000
(3)	City Allocation of Fiscal Year Distributable Actuarial Surplus (Table 3)	9,461,231	3,308,000	12,769,231	9,448,167	3,444,000	12,892,167
(4)	City Surplus Reserve Account (From Prior Years)	0	0	0	0	0	0
(5)	Total contribution offsets available (Item 3 + Item 4)	9,461,231	3,308,000	12,769,231	9,448,167	3,444,000	12,892,167
(6)	Total contribution required (Item 1 x Item 2)	10,460,165	3,308,000	13,768,165	9,877,246	3,685,354	13,562,600
(7)	Unused Offset (Item 5 – Item 6, not less than 0)	0	0	0	0	0	0
(8)	Additional offset required (Item 6 – Item 5, not less than 0) from Prepaid Contribution	998,934	0	998,934	429,079	241,354	670,433
(9)	Offset Adjustment	0	0	0	-241,354	241,354	0
(10)	Total contribution offsets $(5) + (9)$	9,461,231	3,308,000	12,769,231	9,206,813	3,685,354	12,892,167
(11)	Net additional City Contribution Before Application of Prepaid Employer Contributions (6) – (10)	998,934	0	998,934	670,433	0	670,433
(12)	City Prepaid Employer Contribution Account Balance	3,773,102		3,773,102	4,123,947	0	4,123,947
(13)	<sup>1</sup> / <sub>2</sub> year interest on (12)	155,640		155,640	170,113		170,113
(14)	City Contributions $(11) - (12) - (13)$ , not less than 0	0	0	0	0	0	0
(15)	Projected residual Prepaid Employer Contribution account at year end. (12) + (13) – (11) adjusted with ½ year interest, not less than						
	0	3,050,663	0	3,050,663	3,773,102	0	3,773,102

**Allocation of Actuarial Surplus** 

	June 30		
	2007	2006	
le 5: Calculations for PRSB and PRSB Reserve			
<ol> <li>PRSB Allocation of Distributable Actuarial Surplus (Table 3)</li> </ol>	\$4,724,084	\$2,860,356	
2) PRSB Reserve Account (as of Valuation Date)	\$1,963,000	\$1,782,000	
3) Estimated July 1 to December 31 PRSB Payment	<u>\$1,625,249</u>	<u>\$1,342,909</u>	
4) Total amount available for PRSB $(1) + (2) - (3)$	\$5,061,835	\$3,299,447	
5) 95% x (4)	\$4,808,743	\$3,134,475	
<ol> <li>Number of eligible participants (Retirees &amp; Beneficiaries)</li> </ol>	1,260	1,215	
7) Monthly PRSB Benefit for next calendar year	\$318.04	\$214.98	
(5) / (6) / 12			
3) Target Monthly Benefit	\$822.00	\$819.00	
9) Benefit Shortfall (8) – (7)	\$503.96	\$604.02	
<ul> <li>Estimated PRSB Reserve Account as of end of next calendar year: (4) – (6) x (7) x 12</li> </ul>	\$253,070	\$165,039	

Under section 2-1853(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, 2008 surplus will be used to determine the 2009 calendar year PRSB benefit.

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