## **City of Fresno Fire and Police Retirement System**

Actuarial Valuation and Review as of June 30, 2006

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December 6, 2006

Board of Retirement City of Fresno Fire and Police Retirement System 2828 Fresno Street, Room 201 Fresno, CA 93721-1327

#### Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of June 30, 2006. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2007-2008 and analyzes the preceding year's experience.

The census and financial information were prepared by the City of Fresno Fire and Police 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

*By*:

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#### **Purpose**

This report has been prepared by The Segal Company to present a valuation of the City of Fresno Fire and Police Retirement System as of June 30, 2006. 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, 2006, provided by the Retirement System;
- > The assets of the System as of June 30, 2006, 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, 2006 valuation.

The City of Fresno Fire and Police 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, 2006, 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.

In this valuation, we have continued to apply the same assumptions used in the June 30, 2005 actuarial valuation.

The rates calculated in this report may be adopted by the Board for the fiscal year that extends from July 1, 2007 through June 30, 2008.

#### **Significant Issues in Valuation Year**

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

- > In the June 30, 2005 valuation, the ratio of the valuation value of assets to actuarial accrued liabilities was 126.4%. In this June 30, 2006 valuation, the funding ratio has decreased slightly to 125.4%.
- > The Retirement System's prefunded actuarial accrued liability (PAAL) as of June 30, 2005 was \$176.6 million. In this year's valuation, the PAAL has increased to \$183.5 million.
- > The Plan had a net actuarial experience loss of about \$1.1 million. A reconciliation of the System's PAAL is provided in Section 3. Exhibit H.
- > The aggregate employer rate calculated in this valuation has increased from 5.38% of payroll to 8.01% of payroll. The reasons for this change are: (i) lower amount of credit from prepaid employer contributions (ii) higher than expected return on investments, (iii) lower than expected retiree COLA increases, (iv) change in valuation programs and methods, and (v) 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 increased from 8.25% of payroll to 8.35% of payroll. The change in member rate is due to change in valuation programs and methods and from membership demographics. A reconciliation of the Retirement System's aggregate member rate is provided in Section 2, Subsection D (see Chart 15).
- > In the June 30, 2004 valuation, the Board had made a change in the asset smoothing method to smooth all market returns that were in excess of the expected return on the valuation value of assets over a 5-year period. In this valuation, we have refined the smoothing method to smooth only the actual market returns that were in excess of the expected return on the market value of assets. In addition we have refined the methodology so that the sum of the valuation of assets, the unrecognized deferred return and the non-valuation assets is equal to the market value of assets as of June 30, 2006. This conforms to the version of this smoothing method that is more commonly used among California Public employees retirement systems.

As indicated in Section 2, Subsection B (see Chart 7) of this report, the total unrecognized investment gains as of June 30, 2006 is \$74.5 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, 2006. 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.

SECTION 1: Valuation Summary for the City of Fresno Fire and Police Retirement System

	June	30, 2006	June	e 30, 2005
Employer Contribution Rates:		Estimated		Estimated
	Total Rate	Annual Amount (1)	Total Rate	Annual Amount (1)
Tier 1 Normal Cost Rate	25.66%	\$6,468		
Tier 2 Normal Cost Rate	16.28%	9,897		
All Categories Combined	19.03%	16,365	20.02%	\$17,217
Surplus Offset	-7.63%	-6,558	-8.09%	-6,957
Prepaid Contributions	-3.39%	-2,914	-6.55%	-5,633
Required Contributions	8.01%	6,893	5.38%	4,627
Average Member Contribution Rates:		Estimated		Estimated
	Total Rate	Annual Amount (2)	Total Rate	Annual Amount (2)
Tier 1	5.01%	\$588	4.35%	\$511
Tier 2	9.00%	5,443	9.00%	5,443
All Categories combined	8.35%	6,031	8.25%	5,954
Funded Status:				
Actuarial accrued liability	\$722,722		\$670,101	
Valuation value of assets	\$906,223		\$846,718	
Funded percentage	125.4%		126.4%	
Prefunded Actuarial Accrued Liability	\$183,501		\$176,617	
Key Economic Assumptions:				
Interest rate	8.25%		8.25%	
Inflation rate	4.25%		4.25%	
Across-the-board salary increase	0.00%		0.00%	

<sup>(1)</sup> Based on projected fiscal year 2007-2008 annual payroll for active non-DROP and DROP members of \$85,999.

<sup>(2)</sup> Based on projected fiscal year 2007-2008 annual payroll for members not in the DROP of \$72,212.

SECTION 1: Valuation Summary for the City of Fresno Fire and Police Retirement System

	June 30, 2006	June 30, 2005	Percentage Change
Active Members:			
Non-DROP			
Number of members	928	894	3.8%
Average age	36.8	36.8	N/A
Average service	8.4	8.4	N/A
Projected total compensation (4)	\$69,268,193	\$61,123,230	13.3%
Average projected compensation	\$74,642	\$68,371	9.2%
DROP			
Number of members	169	171	-1.2%
Average age	54.7	54.4	N/A
Average service	24.3	23.6	N/A
Projected total compensation (4)	\$13,224,715	\$12,299,275	7.5%
Average projected compensation	\$78,253	\$71,926	8.8%
Retired Member and Beneficiaries:			
Number of members:			
Service retired	314	312	0.6%
Disability retired	282	274	2.9%
Beneficiaries	223	211	5.7%
Total	819	797	2.8%
Average age	65.7	65.7	N/A
Average monthly benefit (1)	\$3,260	\$3,054	6.8%
Vested Terminated Members:			
Number of vested terminated members (2)	44	31	41.9%
Average age	37.2	38.9	N/A
Summary of Financial Data (dollar amounts in thousands):			
Market value of assets (3)	\$1,044,738	\$957,810	9.1%
Return on market value of assets	11.69%	10.45%	N/A
Actuarial value of assets	\$970,209	\$903,183	7.4%
Return on actuarial value of assets	10.17%	N/A	N/A
Valuation value of assets	\$906,223	\$846,718	7.0%
Return on valuation value of assets	9.64%	10.02%	N/A

<sup>(1)</sup> Excludes supplemental benefits paid from PRSB.

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

<sup>(3)</sup> Before reflecting a change in the market value of assets as of June 30, 2005. After the change, the market value was \$957,988.

<sup>&</sup>lt;sup>(4)</sup> June 30, 2005 payroll was actual payroll for plan year 04-05. June 30, 2006 payroll was projected payroll for plan year 06-07.

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

## CHART 1 Member Population: 2004 – 2006

Active Members <sup>(1)</sup>	Vested Terminated Members <sup>(2)</sup>	Retired Members and Beneficiaries	Ratio of Non-Actives to Actives
1,017	21	771	0.78
1,065	31	797	0.78
1,097	44	819	0.79
	1,017 1,065	Members <sup>(1)</sup> Members <sup>(2)</sup> 1,017 21 1,065 31	Members <sup>(1)</sup> Members <sup>(2)</sup> and Beneficiaries           1,017         21         771           1,065         31         797

<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 928 non-DROP active members with an average age of 36.8 years, average years of service of 8.4 and average compensation of \$74,642. The 894 non-DROP active members in the prior valuation had an average age of 36.8 years, average service of 8.4 and average compensation of \$68,371.

#### **Inactive Members**

In this year's valuation, there were 44 members with a vested right to a deferred or immediate vested benefit or entitled to a return of their member contributions versus 31 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, 2006

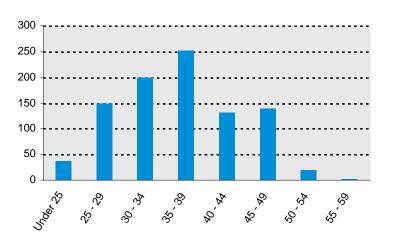
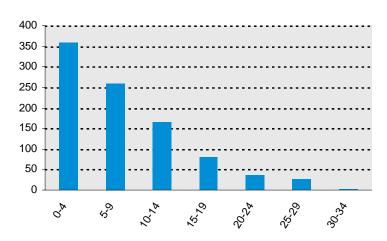


CHART 3

Distribution of Non-DROP Active Members by Years of Service as of June 30, 2006



#### **DROP Active Members**

In this year's valuation, there were 169 DROP active members with an average age of 54.7 years, average years of service of 24.3 and average compensation of \$78,253. The 171 DROP active members in the prior valuation had an average age of 54.4 years, average service of 23.6 years and average compensation of \$71,926.

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

As of June 30, 2006, 596 retired members and 223 beneficiaries were receiving total monthly benefits of \$2,669,700. For comparison, in the previous valuation, there were 586 retired members and 211 beneficiaries receiving monthly benefits of \$2,434,273.

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, 2006

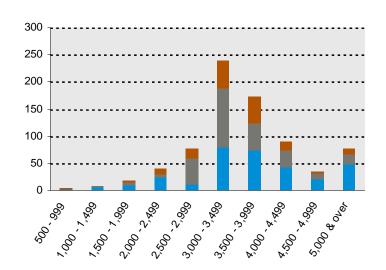
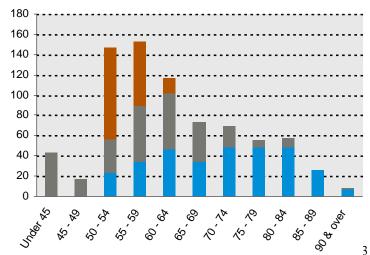


CHART 5
Distribution of Retired Members (Excl. Beneficiaries) by Type and by Age as of June 30, 2006



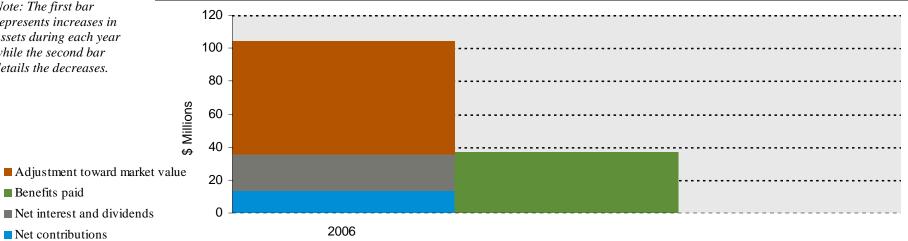
DROPDisabilityService

#### **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 year. 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



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.

## CHART 7 Determination of Actuarial Value of Assets for Year Ended June 30, 2006

Plan Year Endir	ng Total Actual Market	Expected	Investment	Deferred	Deferred
June 30	Return	Return*	Gain/(Loss)	Factor	Return
2003	N/A	N/A	\$ 5,269,653	0.0	\$0
2004	N/A	N/A	80,487,543	0.4	32,195,017
2005	\$ 91,761,097	\$64,599,953	27,161,144	0.6	16,296,686
2006	110,590,200	78,043,274	32,546,926	0.8	26,037,541

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

1.	Total Deferred Return	\$74,529,244
2.	Net Market Value	1,044,738,026
3.	Actuarial Value of Assets (Item 2 – Item 1)	\$970,208,782
4.	Non-Valuation Reserves	63,986,000
5.	Valuation Value of Assets (Item 3 – Item 4)	\$906,222,782

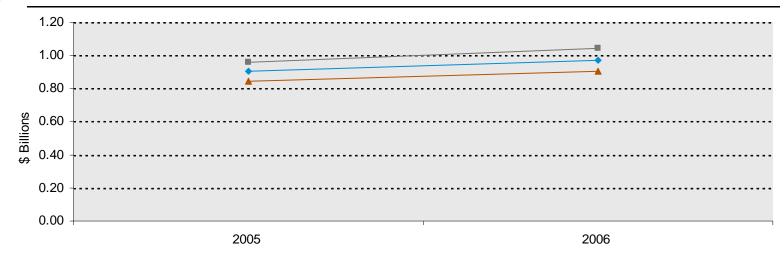
<sup>\*</sup>Based on expected return on market value of assets effective June 30, 2006.

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.

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

CHART 8

Market Value, Actuarial Value and Valuation Value of Assets as of June 30, 2005-2006



--- Actuarial Value

—— Market Value

→ Valuation 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 loss was \$1.1 million, including a gain of \$11.6 million from investments and a loss of \$12.8 million from all other sources. The net experience variation from individual sources other than investments was 1.8% of the actuarial accrued liability. A discussion of the major components of the actuarial experience is on the following pages.

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

#### **CHART 9**

## Actuarial Experience for Year Ended June 30, 2006

1.	Net gain/(loss) from investments (1)	\$11,636,000
2.	Net gain/(loss) from other experience (2)	-12,785,000
3.	Net experience gain/(loss): $(1) + (2)$	-\$1,149,000

<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, 2005 valuation). The actual rate of return on a valuation basis for the 2006 plan year was 9.64%.

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, 2006 with regard to its investments.

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

CHART 10
Investment Experience for Year Ended June 30, 2006 – Valuation Value and Actuarial Value of Assets

	Valuation Value	Actuarial Value
Actual return	\$ 80,618,910	\$ 90,688,128
2. Average value of assets	836,161,015	891,351,906
3. Actual rate of return: (1) ÷ (2)	9.64%	10.17%
4. Assumed rate of return	8.25%	8.25%
5. Expected return: (2) x (4)	68,983,284	73,536,532
6. Actuarial gain/(loss): (1) – (5)	<u>\$11,635,626</u>	<u>\$17,151,596</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 two years. Based on the assumptions adopted by the Board for the June 30, 2006 valuation, we have maintained the investment return assumption at 8.25%.

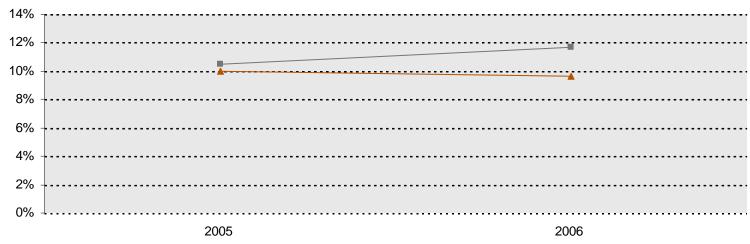
CHART 11
Investment Return – Actuarial Value, Valuation Value and Market Value: 2005 - 2006

	Valuatior Investmen		Actuaria Investmen		Market ' Investmen	
Year Ended June 30	Amount	Percent	Amount	Percent	Amount	Percent
2005	\$73,717,200	10.02%	N/A	N/A	\$91,761,097	10.45%
2006	80,618,910	9.64%	\$90,688,128	10.17%	110,590,200	11.69%

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, 2006





## **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, 2006 amounted to \$12.8 million which is 1.8% 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

inflation rate of 4.25%.

The recommended employer contributions are provided on Chart 13.

**Member Contributions** 

Tier 1 Provide 1/3 of the funding required to pay a benefit equal to 50% of FAS at age 50 (or

when a member has 20 years of service if later but not later than age 60) to a member with 66 2/3% automatic continuance payable to his/her eligible spouse/domestic partner (§2-1715). The contribution will be prorated if the member has less than 20

years of service at age 60.

*Tier 2* 9% pay (§2-1715A)

CHART 13
Recommended Employer Contribution Rates (Dollar Amounts in Thousands)

		June 30, 2006		June 30, 2005
		Estimated Annual		Estimated Annual
Tier 1 Members	<u>Rate</u>	Amount*	<u>Rate</u>	Amount*
Normal Cost	25.66%	\$6,468		
Tier 2 Members				
Normal Cost	16.28%	\$9,897		
All Categories Combined				
Normal Cost	19.03%	\$16,365	20.02%	\$17,217
Surplus Offset	-7.63%	-6,558	-8.09%	-6,957
Prepaid Contribution	<u>-3.39%</u>	<u>-2,914</u>	<u>-6.55%</u>	<u>-5,633</u>
Total Contribution	8.01%	\$6,893	5.38%	\$4,627

<sup>\*</sup> Amounts are in thousands and are based on projected fiscal year 2007 – 2008 annual payroll for active non-DROP and DROP members (also in thousands):

Tier 1	\$ 25,207
Tier 2	60,792
Total	\$ 85,999

The employer contribution rates as of June 30, 2006 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, 2005 to June 30, 2006 (Dollars in Thousands)

	Contribution Rate	Estimated Amount <sup>*</sup>
Recommended Contribution Rate as of June 30, 2005	5.38%	\$4,627
Effect of actuarial experience during 2005:		
1. Effect of lower credit from prepaid employer contributions	3.16%	\$2,718
2. Effect of investment gain	-0.84%	-722
3. Effect of lower than expected retiree COLA increases	-0.39%	-335
4. Effect of change in valuation programs and methods	0.43%	370
5. Effect of other experience (gains)/losses	0.27%	235
Subtotal	2.63%	\$2,266
Recommended Contribution Rate as of June 30, 2006	8.01%	\$6,893

<sup>\*</sup> Based on projected fiscal year 2007 – 2008 annual payroll of \$85,999 for active non-DROP and DROP members.

The member contribution rates as of June 30, 2006 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.

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

# CHART 15 Reconciliation of Recommended Member Contribution from June 30, 2005 to June 30, 2006 (Dollar Amounts in Thousands)

	Contribution Rate	Estimated Amount*
Average Contribution Rate as of June 30, 2005	8.25%	\$5,954
1. Effect of change in valuation programs and methods	0.02%	\$14
2. Effect of change in membership demographics	0.08%	\$63
Subtotal	0.10%	\$77
Average Contribution Rate as of June 30, 2006	8.35%	\$6,031

<sup>\*</sup> Based on projected fiscal year 2007- 2008 annual payroll for members NOT in the DROP of \$72,212.

#### 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.

These graphs show key GASB factors.

CHART 16
Required Versus Actual Contributions

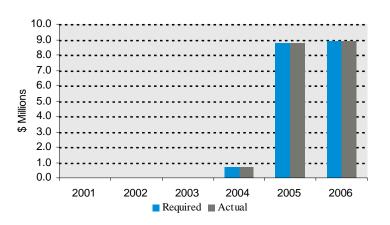
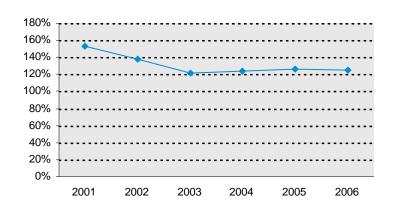


CHART 17
Funded Ratio



SECTION 3: Supplemental Information for the City of Fresno Fire and Police Retirement System

EXHIBIT A

Table of Plan Coverage
i. Tier 1

	Year Ende	Year Ended June 30		
Category	2006	2005	– Change From Prior Year	
Active members in valuation				
Non-DROP				
Number	132	154	-14.3%	
Average age	46.5	46.0	N/A	
Average service	21.1	20.64	N/A	
Projected total compensation	\$11,259,890	\$12,333,729	-8.7%	
Projected average compensation	\$85,302	\$80,089	6.5%	
Member account balances	\$19,557,780	\$21,126,509	-7.4%	
Total active vested members	132	154	-14.3%	
DROP				
Number	165	168	-1.8%	
Average age	54.7	54.4	N/A	
Average service	24.6	24.4	N/A	
Projected total compensation	\$12,919,071	\$12,087,996	6.9%	
Projected average compensation	\$78,297	\$71,952	8.8%	
Vested terminated members				
Number	8	10	-20.0%	
Average age	46.9	47.2	N/A	
Retired members				
Number in pay status	311	310	0.3%	
Average age	71.2	71.5	N/A	
Average monthly benefit <sup>(1)</sup>	\$3,866	\$3,625	6.6%	
Disabled members				
Number in pay status	242	239	1.3%	
Average age	61.0	60.4	N/A	
Average monthly benefit <sup>(1)</sup>	\$3,717	\$3,434	8.2%	
Beneficiaries				
Number in pay status	223	211	5.7%	
Average age	68.1	67.9	N/A	
Average monthly benefit <sup>(1)</sup>	\$2,013	\$1,848	8.9%	

<sup>(1)</sup> Excludes supplemental benefits paid from PRSB.

SECTION 3: Supplemental Information for the City of Fresno Fire and Police Retirement System

EXHIBIT A

Table of Plan Coverage
ii. Tier 2

	Year End	Year Ended June 30		
0.1		0005	Change From	
Category	2006	2005	Prior Year	
Active members in valuation				
Non-DROP				
Number	796	740	7.6%	
Average age	35.2	34.8	N/A	
Average service	6.3	5.9	N/A	
Projected total compensation	\$58,008,304	\$48,789,501	18.9%	
Projected average compensation	\$72,875	\$65,932	10.5%	
Member account balances	\$38,520,066	\$31,884,838	20.8%	
Total active vested members	438	441	-0.7%	
DROP				
Number	4	3	33.3%	
Average age	56.1	55.3	N/A	
Average service	9.0	7.7	N/A	
Projected total compensation	\$305,644	\$207,600	47.2%	
Projected average compensation	\$76,411	\$69,200	10.4%	
Vested terminated members				
Number	36	21	71.4%	
Average age	35.0	34.9	N/A	
Retired members				
Number in pay status	3	2	50.0%	
Average age	52.4	52.3	N/A	
Average monthly benefit <sup>(1)</sup>	\$1,408	\$1,653	-14.8%	
Disabled members				
Number in pay status	40	35	14.3%	
Average age	39.3	38.6	N/A	
Average monthly benefit <sup>(1)</sup>	\$2,865	\$2,757	3.9%	
Beneficiaries				
Number in pay status	0	0	N/A	
Average age	N/A	N/A	N/A	
Average monthly benefit <sup>(1)</sup>	N/A	N/A	N/A	

<sup>(1)</sup> Excludes supplemental benefits paid from PRSB.

**EXHIBIT B** 

Members in Active Service and Projected Average Compensation By Age, Years of Service as of June 30, 2006 – Non-DROP Active Members Only\*

i. Tier 1

					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									_	
									-	
25 - 29									_	
									-	
30 - 34									-	
									-	
35 - 39	5				5				-	
	\$77,104				\$77,104				-	
40 - 44	30			1	22	7			-	
	90,122			\$86,209	88,247	\$96,573			-	
45 - 49	90				33	29	26	2	-	
	84,386				79,987	81,612	\$93,850	\$74,140		
50 - 54	7				5		1	1	-	
	82,285				83,802		80,073	76,912	-	
55 - 59										
									-	
60 - 64									-	
									-	
65 - 69									-	
									-	
70 & over									-	
Total	132			1	65	36	27	3	-	
	\$85,302			86,209	\$82,855	\$84,521	\$93,339	\$75,064		

<sup>\*</sup> Excludes 165 active members in DROP with projected average compensation of \$78,297.

**EXHIBIT B** 

Members in Active Service and Projected Average Compensation By Age, Years of Service as of June 30, 2006 – Non-DROP Active Members Only\*

ii. Tier 2

				Year	s of Servi	ce			
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & over
Under 25	37	37							
	\$59,182	\$59,182							
25 - 29	149	126	23						
	64,328	61,718	\$78,632						
30 - 34	199	103	80	16					
	72,591	66,842	77,766	\$83,734					
35 - 39	247	61	109	73	4				
	76,517	69,031	77,270	81,475	\$79,670				
40 - 44	101	20	33	42	6				
	78,500	75,511	77,704	79,317	87,126				
45 - 49	49	8	8	27	6				
	79,274	72,768	80,378	80,321	81,764				
50 - 54	12	3	5	4					
	75,346	70,261	72,353	82,900					
55 - 59	2		1	1					
	85,638		76,016	95,259					
60 - 64									
65 – 69									
70 & Over									
Total	796	358	259	163	16				
	\$72,875	\$65,265	\$77,595	\$81,069	\$83,251				·

<sup>\*</sup> Excludes 4 active members in DROP with projected average compensation of \$76,411.

SECTION 3: Supplemental Information for the City of Fresno Fire and Police Retirement System

EXHIBIT C

Reconciliation of Member Data – June 30, 2005 to June 30, 2006

	Non-DROP Active Members	Vested Terminated Members	Pensioners/ DROP	Disableds	Beneficiaries	Total
Number as of June 30, 2005	894	31	483	274	211	1,893
New members	88	0	0	0	0	88
Terminations – with vested rights	-12	12	0	0	0	0
Contributions Refunds	-17	-1	0	0	0	-18
Retirements/ DROP	-20	-4	24	0	0	0
New disabilities	-6	0	-8	14	0	0
Return to work	1	-1	0	0	0	0
Died with or without beneficiary	0	0	-16	-7	12*	-11
Data adjustments	0	7	0	1	0	8
Number as of June 30, 2006	928	44	483**	282	223	1,960

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

<sup>\*\*</sup> Includes 169 active members in DROP.

SECTION 3: Supplemental Information for the City of Fresno Fire and Police Retirement System

EXHIBIT D
Summary Statement of Income and Expenses on an Actuarial Value Basis

	Year Ended J	une 30, 2006
Contribution income:		
Employer contributions	\$8,885,866	
Employee contributions	5,335,793	
Less Administrative Expenses	<u>-802,502</u>	
Net Contribution Income		\$13,419,157
Investment income:		
Interest, dividends and other income	\$28,688,753	
Adjustment toward market value	68,289,208	
Less investment fees	<u>-6,289,833</u>	
Net investment income		90,688,128
Total income available for benefits		\$104,107,285
Less benefit payments:		
Benefit Payments	-\$34,230,001	
Post Retirement supplemental benefits	-2,548,218	
Refunds of contributions	-303,442	
Net benefits payments		-\$37,081,661
Change in reserve for future benefits		\$67,025,624

SECTION 3: Supplemental Information for the City of Fresno Fire and Police Retirement System

**EXHIBIT E**Summary Statement of Assets

	Year Ended .	June 30, 2006	Year Ended	June 30, 2005
Cash equivalents		\$4,470,309		\$887,115
Accounts receivable:				
Receivables for investments sold	\$5,574,713		\$30,261,328	
Interest and dividends	3,988,327		3,613,617	
Others receivables	_1,073,489		21,958,347	
Total accounts receivable	· · · · · · · · · · · · · · · · · · ·	10,636,529		55,833,292
Investments:				
Domestic and international equity	\$604,909,753		\$530,198,272	
Government and corporate bonds	288,433,007		277,406,294	
Real estate	107,593,578		89,827,017	
Emerging market equity	31,430,154		31,502,541	
Collateral held for securities lent	194,049,403		164,948,097	
Other investments	19,005,358		33,705,615	
Total investments at market value		1,245,421,253		1,127,587,836
Total assets		\$1,260,528,091		\$1,184,308,243
Less accounts payable:				
Collateral held for securities lent	-\$194,049,403		-\$164,948,097	
Payable for Investments and Foreign Currency Purchased	-12,743,484		-46,577,352	
Prepaid Employer Contributions	-7,685,005		-13,684,059	
Other liabilities	-1,312,173		<u>-1,111,153</u>	
Total accounts payable		-\$215,790,065		-\$226,320,661
Net assets at market value		<u>\$1,044,738,026</u>		<u>\$957,987,582</u>
Net assets at actuarial value		<u>\$970,208,782</u>		\$903,183,158
Net assets at valuation value		\$906,222,782		\$846,718,158

Note: Results may not total properly due to rounding.

#### SECTION 3: Supplemental Information for the City of Fresno Fire and Police Retirement System

#### **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 Plan, the present value of future member contributions, the present value of future employer normal cost contributions, and the present value of future employer amortization payments.

#### **Actuarial Balance Sheet (Dollar Amounts in Thousands)**

Assets	<u>Total</u>
1. Total valuation assets	\$906,223
2. Present value of future member normal cost	\$56,773
3. Present value of future employer normal cost	\$119,229
4. Unfunded/(prefunded) actuarial accrued liability	-\$183,501
5. Total current and future assets	\$898,724
Liabilities	
6. Present value of benefits already granted, excludes current active DROP	\$425,620
7. Present value of benefits for current active DROP	\$129,098
8. Present value of benefits to be granted	\$344,006
9. Total liabilities	\$898,724

SECTION 3: Supplemental Information for the City of Fresno Fire and Police Retirement System

EXHIBIT G
Summary of Reported Asset Information as of June 30, 2006

	Reserves(\$000)
Employer Advance/Retired Reserves	\$ 710,802
Reserve for Market Stabilization	137,144
Active Member Reserves	42,409
Other Reserve	90,398
DROP Reserve <sup>(1)</sup>	61,886
Reserve for PRSB <sup>(1)</sup>	2,100
Net Assets Held in Trust for Benefits	\$ 1,044,739
(1) Non-valuation reserve	

## SECTION 3: Supplemental Information for the City of Fresno Fire and Police Retirement System

EXHIBIT H

Development of Unfunded /(Prefunded) Actuarial Accrued Liability as of June 30, 2006

		(Dollar amounts in Thousands)
1	Unfunded/(prefunded) actuarial accrued liability at beginning of year	-\$176,617
2	Gross Normal Cost at middle of year	20,501
3	Actual employer and member contributions	-14,222
4	Interest (whole year on $(1)$ plus half year on $(2) + (3)$ )	<u>-14,312</u>
5	Expected unfunded/(prefunded) actuarial accrued liability at end of year	-\$184,650
6	Actuarial (gain)/loss due to all changes:	
	a. Gain from investment	-\$11,636
	b. Lower than expected salary increase	-72
	c. Lower than expected benefit increases for continuing retirees	-5,458
	d. Change in valuation programs and methods	22,711
	e. Other experience (gain)/loss	<u>-4,396</u>
	f. Subtotal	\$1,149
7	Actual unfunded/(prefunded) actuarial accrued liability at end of year	-\$183,501

#### **EXHIBIT I**

#### **Section 415 Limitations**

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

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

In particular, Section 415(b) of the IRC limits the maximum annual benefit payable at the Normal Retirement Age to a dollar indexed for inflation. That limit is \$175,000 for 2006 and \$180,000 for 2007. 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 Fire and Police 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) <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.

# **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 Fire and Police 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 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 (Dollar Amounts in Thousands)

Plan Year Ended June 30	Annual Required Contributions	Actual Contributions	Percentage Contributed
2001	\$ 0	\$ 0	N/A
2002	0	0	N/A
2003	0	0	N/A
2004	728	728	100.0%
2005	8,806	8,806	100.0%
2006	8,886	8,886	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)
6/30/2001	\$859,123	\$562,131	\$296,992	152.8	\$60,985	487.0
6/30/2002	814,680	590,855	223,825	137.9	64,937	344.7
6/30/2003	749,505	617,879	131,626	121.3	65,247	201.7
6/30/2004	793,059	642,194	150,865	123.5	68,483	220.3
6/30/2005	846,718	670,101	176,617	126.4	73,422	240.6
6/30/2006	906,223	722,722	183,501	125.4	82,493	222.4

# EXHIBIT III

# **Supplementary Information Required by GASB**

Valuation date	June 30, 2006			
Actuarial cost method	Entry Age Normal Cost Method			
Amortization method	Level percent of payroll for total Unfunded Actuarial Accrued Liability or Prefunded Actuarial Accrued Liability			
Remaining amortization period	15 years open (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 a expected return on actuarial value of assets over 5 years. The Valuation Value of Assets is 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	4.25%			
Real across-the-board salary increase	0.00%			
Projected salary increases*	4.25% to 9.50%			
Cost of living adjustments	4.25% of Tier 1 retirement income and 2.75% of Tier 2 retirement income			
Plan membership:				
Retired members and beneficiaries receiving benefits	819			
Terminated members entitled to, but not yet receiving benefits	44			
DROP members	169			
Active members	<u>928</u>			
Total	1,960			

<sup>\*</sup> Includes inflation at 4.25% plus real across-the-board salary increase of 0.00% plus merit and longevity increases. See Exhibit IV for these increases.

#### **EXHIBIT IV**

#### **Actuarial Assumptions and Actuarial Cost Method**

#### **Post – Retirement Mortality Rates:**

Healthy: 1994 Uninsured Pensioner Mortality Table (separate tables for males and females).

For males, the table is set back two years and for females, the table is set forward one

year.

Disabled: 1981 Safety Disability Mortality Table set back five years.

Employee Contribution Rates: 1994 Uninsured Pensioner Mortality Table (separate tables for members and

beneficiaries). For members, the table used is the male table set back two years. For

beneficiaries, the table used is the female table set forward one year.

Optional Benefits: 1994 Uninsured Pensioner Mortality Table (separate tables for members, and

beneficiaries). For members, the table used is the male table with no set back. For

beneficiaries, the table used is the female table with a one year set forward.

Please note that for disabled members, the 1981 Safety Disabled Mortality Table set

back five years is used instead.

# **Termination Rates Before Retirement:**

**Rate** (%)

# Mortality

		Tier 1		ier 2
<u>Age</u>	<u>Duty</u>	Non-Duty	<u>Duty</u>	Non-Duty
25	0.04	0.05	0.04	0.04
30	0.05	0.05	0.04	0.05
35	0.06	0.06	0.05	0.06
40	0.07	0.06	0.07	0.07
45	0.12	0.08	0.12	0.12
50	0.17	0.11	0.17	0.17
55	0.00	0.19	0.00	0.00
60	0.00	0.00	0.00	0.00

SECTION 4: Reporting Information for the City of Fresno Fire and Police Retirement System

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

**Rate** (%)

# Disability

		Tier 1		Γier 2
<u>Age</u>	<b>Duty</b>	Non-Duty	<u>Duty</u>	Non-Duty
20	0.09	0.00	0.30	0.00
25	0.28	0.01	0.42	0.01
30	0.31	0.01	0.60	0.01
35	0.70	0.03	0.84	0.03
40	0.95	0.12	1.22	0.12
45	1.25	0.25	1.76	0.25
50	2.50	0.20	1.71	0.20
55	7.00	0.00	2.53	0.00
60	0.00	0.00	0.00	0.00

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

Rate (%)

	Withdrawal (Refund of Contributions)											
	0-1	Yrs	1-2	Yrs	2-3	Yrs	3-4	Yrs	4-10	Yrs	10+	Yrs
<u>Age</u>	<u>Tier1</u>	Tier 2	Tier 1	Tier 2								
20	4.47	8.94	4.47	4.47	4.47	3.00	4.47	2.50	2.87	2.50	2.87	2.50
25	4.47	8.94	4.47	4.47	4.47	3.00	4.47	2.50	2.87	2.50	2.87	2.50
30	4.47	8.94	4.47	4.47	4.47	3.00	4.47	2.50	1.95	1.95	1.77	1.77
35	4.47	8.94	4.47	4.47	4.47	3.00	4.47	2.50	0.83	0.83	0.58	0.58
40	4.47	8.94	4.47	4.47	4.47	3.00	4.47	2.50	0.38	0.38	0.20	0.20
45	4.47	8.94	4.47	4.47	4.47	3.00	4.47	2.50	0.20	0.20	0.03	0.03
50	4.47	8.94	4.47	4.47	4.47	3.00	4.47	2.50	0.00	0.00	0.00	0.00
55	4.47	8.94	4.47	4.47	4.47	3.00	4.47	2.50	0.00	0.00	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	0.00	0.00

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

Rate (%)

Vested Termination (Deferred Vested Benefit)

Age	Tier 1	Tier 2
20	0.70	0.70
25	0.70	0.70
30	0.70	0.70
35	0.70	0.70
40	0.70	0.60
45	0.60	0.35
50	0.00	0.00
55	0.00	0.00
60	0.00	0.00

# **Retirement Rates:**

Rate(%)

Age	Tier 1	Tier 2
50	12.72	5.31
51	7.63	4.12
52	7.63	4.64
53	5.09	14.28
54	5.09	16.74
55	10.60	19.46
56	13.77	11.72
57	14.03	7.82
58	16.66	9.69
59	29.67	9.17
60	100.00	100.00

DROP Assumptions:	Tier 1	Tier 2
First Year Eligible	100%	50%
Second Year Eligible	0%	25%
Third Year Eligible	0%	10%
Thereafter	0%	0%

Members are assumed to remain in DROP for 3 years

Retirement Age and Benefit for Deferred Vested Members	For current deferred vested members, the retirement assumption is age 50.
	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:	85%
Age of Spouse:	Wives are 4 years younger than their husbands.
<b>Net Investment Return:</b>	8.25%, net of administration and investment expenses.
Employee Contribution Crediting Rate:	8.25%, assumed in the valuation.
<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 for Tier 1 and 2.75% for Tier 2.

#### **Salary Increases:**

#### Annual Rate of Compensation Increase

Inflation: 4.25% per year plus 0.00% real acrossthe-board salary increase; plus the following Merit and Longevity increases based on completed years of service and age.

5 or less years of: 5.25%

More than 5 years of Service

<u>Age</u>	Annul Increase
25-29	1.65%
30-34	1.25%
35-39	1.05%
40-44	0.50%
45-49	0.25%
50+	0.00%

There is an additional 0.75% increase at the time of service retirement to reflect the average leave time cash outs for management employees.

**Actuarial Value of Assets:** 

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.

**Valuation Value of Assets:** 

The Actuarial Value of Assets reduced by the value of the non-valuation reserves.

**Actuarial Cost Method:** 

Entry Age Normal Actuarial Cost Method. Normal Cost and Actuarial Accrued Liability is calculated on an individual basis and is based on costs allocated as a level percentage of compensation. The Normal cost is calculated on an aggregate basis by taking the present value of Future Normal Costs divided by the Present Value of Future Salaries to obtain a Normal Cost Rate. This Normal Cost rate is then multiplied by the total current salaries.

#### **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:	
	All sworn Fire, Police, and Airport Public Safety personnel are eligible.
Tier 1	Safety members hired before August 27, 1990.
Tier 2	Safety members hired on or after August 27, 1990.
Final Compensation (FAS) for Benefit Determination:	
Tier 1	Final highest consecutive thirty-six months of compensation earnable calculated using the rate of pay actually earned by the member in effect at the time of retirement. Some members are also entitled to final compensation determined based on a rank average (§2-1701 and §2-1701.1).
Tier 2	Highest consecutive thirty-six months of compensation earnable calculated using the rate of pay actually earned by the member in effect at the time of retirement (§2-1701A).
Service:	Years of service (Yrs).
<b>Service Retirement Eligibility:</b>	
Tier 1	Age 50 with 10 years of service, or age 65 regardless of service (§2-1726).
Tier 2	Age 50 with 5 years of service, or age 65 regardless of service (§2-1726A).

#### **Benefit Formula:**

*Tier 1* (§2-1727)

If a member has at least 20 years of service at age 50:

Yrs before 50 (limited to 20) \* 2.75% \* FAS + Yrs after 50 \* (limited to 10) \* 2.00% \*

FAS

If a member has less than 20 years of service at age 50:

Yrs (limited to 20) \* 2.75% \* FAS + Yrs of service in excess of 20 (limited to 10) \*

2.00% \* FAS

*Tier 2* (§2-1727A)

Retirement Age	<b>Benefit Formula</b>
50	2.00% x FAS x Yrs
51	2.14% x FAS x Yrs
52	2.28% x FAS x Yrs
53	2.42% x FAS x Yrs
54	2.56% x FAS x Yrs
55+	2.70% x FAS x Yrs

#### **Maximum Benefit**

(§2-1727 and §2-1727A):

75% of FAS

#### **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 (§2-1744 and

§2-1744A).

#### **Ordinary Disability:**

Tier 1

Eligibility Ten years of service (§2-1729).

Benefit Formula Greater of 1.65% x FAS x Yrs, 36.67% FAS or Service Retirement benefit (§2-1730).

*Tier 2* 

Eligibility Ten years of service (§2-1729A).

Benefit Formula Greater of 1.5% x FAS x Yrs, 33.00% FAS or Service Retirement benefit (§2-1730A).

#### **Duty Disability:**

Tier 1

Eligibility No age or service requirements (§2-1729).

Benefit Formula 55% of FAS or Service Retirement benefit, if greater (§2-1730).

<u>Tier 2</u>

Eligibility No age or service requirements (§2-1729A)

Benefit Formula 50% of FAS or Service Retirement benefit, if greater (§2-1730A).

#### **Pre-Retirement Death:**

All Members

Eligibility None.

Basic lump sum benefit Refund of employee contributions with interest, plus one month's compensation for

each year of service, to a maximum of six month's compensation (§2-1723 and

§2-1723A for Tier 1 and Tier 2, respectively).

Death in line of Duty 55% (50% for Tier 2) of FAS or Service Retirement benefit, if greater and, payable to

spouse/domestic partner or minor children

(§2-1723 and 2-1723A for Tier 1 and Tier 2, respectively).

OR

**Vested Members** 

Eligibility Ten (five for Tier 2) years of service.

Basic Benefit 66-2/3% of member's unmodified allowance continued to eligible Spouse/Domestic

Partner (§2-1732 and §2-1732A for Tier 1 and Tier 2, respectively).

<b>Death After Retirement:</b>	
<u>All Members</u>	
Service or Ordinary Disability Retirement	66 2/3 % of member's unmodified allowance continued to eligible spouse/domestic partner (§2-1732 and §2-1732A for Tier 1 and Tier 2, respectively).
Line-of-Duty Disability	100% of member's allowance continued to eligible spouse/domestic partner (§2-1732 and §2-1732A for Tier 1 and Tier 2, respectively).
Withdrawal Benefits:	
Less than Five Years of Service (Ten Years for Tier 1)	Refund of accumulated employee contributions with interest.
Five or More Years of Service (Ten Years for Tier 1)	If contributions left on deposit, entitled to earned benefits commencing at any time after eligible to retire (§2-1735 and §2-1735A for Tier 1 and Tier 2, respectively).
Post-retirement Cost-of-Living Benefits:	
Tier 1	Future changes based on Consumer Price Index to a maximum of 5% per year. Some members are entitled to a cost-of-living benefit based on a rank average (§2-1701.1).
Tier 2	Future changes based on Consumer Price Index to a maximum of 3% per year (§2-1727A).

SECTION 4: Reporting Information for the City of Fresno Fire and Police Retirement System

<b>Member Contributions:</b>	Please refer to Appendix A for specific rates.
Tier 1	Provide 1/3 of the funding required to pay a benefit equal to 50% of FAS at age 50 (or when a member has 20 years of service if later but not later than age 60) to a member with 66 2/3% automatic continuance payable to his/her eligible spouse/domestic partner (§2-1715). The contribution will be prorated if the member has less than 20 years of service at age 60.
Tier 2	9% pay (§2-1715A)
Tier 1	Refund of contribution paid for 66 2/3% automatic continuance. Provide a refund of contributions at service or disability retirement for those members without an eligible spouse/domestic partner (§2-1715).
<b>City Contributions:</b>	The amortization period for Prefunded Actuarial Accrued Liability is amortized over an open non-declining 15-year period.
Post Retirement Supplement	
Benefit (PRSB)	PSRB may be paid to active and retired DROP participants and eligible retirees and beneficiaries (§2-1745 and §2-1745A for Tier 1 and Tier 2, respectively). 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 Contributions Rates**

Comparison of member rates calculated in the June 30, 2005 and June 30, 2006 valuations:

	June 30, 2006 A	June 30, 2006 Actuarial Valuation June 30, 2005 Actuarial Valuation		uarial Valuation
	Rate	Estimated Annual Amount*	Rate	Estimated Annual Amount*
Tier 1 Members	5.01%	\$588	4.35%	\$511
Tier 2 Members	9.00%	\$5,443	9.00%	\$5,443
All member categories Combined	8.35%	\$6,031	8.25%	\$5,954

<sup>\*</sup> Amounts are in thousands and are based on the projected fiscal year 2007 – 2008 annual payroll for members NOT in the DROP (also in thousands):

	Excludes DROP M	<b>Excludes DROP Members</b>			
Tier 1	\$	11,739			
Tier 2		60,473			
Total	\$	72,212			

Appendix A
Member Contribution Rates (Continued)

Tier 1 Members' Contribution Rates based on the June 30, 2006 Actuarial Valuation as a percentage of payroll

	Exa	ct Age	1/4	Age	1/2	Age	3/2	4 Age
Entry Age	Rate	Dependent Portion	Rate	Dependent Portion	Rate	Dependent Portion	Rate	Dependent Portion
20	3.86%	0.04985	3.91%	0.04985	3.96%	0.04985	4.01%	0.04985
21	4.06%	0.04985	4.11%	0.04985	4.16%	0.04985	4.21%	0.04985
22	4.26%	0.04985	4.32%	0.04985	4.37%	0.04985	4.43%	0.04985
23	4.48%	0.04985	4.54%	0.04985	4.60%	0.04985	4.66%	0.04985
24	4.72%	0.04985	4.79%	0.04985	4.86%	0.04985	4.92%	0.04985
25	4.99%	0.04985	5.06%	0.04985	5.14%	0.04985	5.21%	0.04985
26	5.28%	0.04985	5.36%	0.04985	5.44%	0.04985	5.51%	0.04985
27	5.59%	0.04985	5.68%	0.04985	5.77%	0.04985	5.85%	0.04985
28	5.94%	0.04985	6.04%	0.04985	6.14%	0.04985	6.23%	0.04985
29	6.33%	0.04985	6.44%	0.04985	6.54%	0.04985	6.65%	0.04985
30	6.75%	0.04985	6.73%	0.05062	6.72%	0.05138	6.70%	0.05215
31	6.68%	0.05291	6.66%	0.05372	6.65%	0.05453	6.63%	0.05533
32	6.61%	0.05614	6.59%	0.05699	6.57%	0.05785	6.55%	0.05870
33	6.53%	0.05955	6.51%	0.06044	6.49%	0.06133	6.47%	0.06222
34	6.45%	0.06311	6.43%	0.06404	6.41%	0.06498	6.38%	0.06591
35	6.36%	0.06684	6.34%	0.06782	6.33%	0.06879	6.31%	0.06977
36	6.29%	0.07074	6.27%	0.07176	6.26%	0.07279	6.24%	0.07381
37	6.22%	0.07483	6.20%	0.07590	6.18%	0.07697	6.16%	0.07803
38	6.14%	0.07910	6.12%	0.08021	6.11%	0.08132	6.09%	0.08243
39	6.07%	0.08354	6.05%	0.08469	6.03%	0.08584	6.01%	0.08699
40	5.99%	0.08814	6.02%	0.08814	6.06%	0.08814	6.09%	0.08814
41	6.12%	0.08814	6.16%	0.08814	6.19%	0.08814	6.23%	0.08814
42	6.26%	0.08814	6.29%	0.08814	6.33%	0.08814	6.36%	0.08814
43	6.39%	0.08814	6.43%	0.08814	6.47%	0.08814	6.50%	0.08814
44	6.54%	0.08814	6.58%	0.08814	6.61%	0.08814	6.65%	0.08814

SECTION 4: Reporting Information for the City of Fresno Fire and Police Retirement System

Appendix A
Member Contribution Rates (Continued)

	Exa	ct Age	1/4	Age	1/2	Age	3/4	4 Age
Entry Age	Rate	Dependent Portion	Rate	Dependent Portion	Rate	Dependent Portion	Rate	Dependent Portion
45	6.68%	0.08814	6.72%	0.08814	6.76%	0.08814	6.80%	0.08814
46	6.84%	0.08814	6.88%	0.08814	6.93%	0.08814	6.97%	0.08814
47	7.01%	0.08814	7.05%	0.08814	7.10%	0.08814	7.14%	0.08814
48	7.18%	0.08814	7.23%	0.08814	7.28%	0.08814	7.32%	0.08814
49	7.37%	0.08814	7.42%	0.08814	7.47%	0.08814	7.51%	0.08814
50	7.56%	0.08814	7.61%	0.08814	7.67%	0.08814	7.72%	0.08814
51	7.77%	0.08814	7.83%	0.08814	7.89%	0.08814	7.94%	0.08814
52	8.00%	0.08814	8.04%	0.08814	8.07%	0.08814	8.11%	0.08814
53	8.14%	0.08814	8.15%	0.08814	8.16%	0.08814	8.17%	0.08814
54	8.18%	0.08814	8.17%	0.08814	8.16%	0.08814	8.14%	0.08814
55	8.13%	0.08814	8.12%	0.08814	8.11%	0.08814	8.10%	0.08814
56	8.09%	0.08814	8.08%	0.08814	8.07%	0.08814	8.05%	0.08814
57	8.04%	0.08814	8.12%	0.08814	8.20%	0.08814	8.27%	0.08814
58	8.35%	0.08814	8.43%	0.08814	8.52%	0.08814	8.60%	0.08814
59	8.68%	0.08814	8.68%	0.08814	8.68%	0.08814	8.68%	0.08814

Interest: 8.25%

Mortality: UP 94 Male set back two years for member

UP 94 Female set forward one year for beneficiary

Salary Increase: See Exhibit IV in Section 4.

# Appendix B

# **Allocation of Actuarial Surplus**

	Jun	e 30
	2006	2005
Surplus as of Date of Valuation (Table 1)	\$183,500,609	\$176,616,692
Actuarial Surplus (Table 1)	111,228,392	109,606,545
Distributable Actuarial Surplus as of date of valuation (Table 2)	9,942,126	9,563,719
Allocation of Distributable Surplus as of Date of Valuation:		
City Allocation (Table 3)	6,628,084	6,375,813
PRSB Allocation (Table 3)	<u>3,314,042</u>	<u>3,187,906</u>
Total	<u>\$9,942,126</u>	<u>\$9,563,719</u>
Allocation of Projected Distributable Surplus as of Date of Nex	t Valuation:	
City Allocation (Table 3)	\$6,558,012	\$6,322,547

The Allocation of Distributable Actuarial Surplus is sufficient to:

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<sup>-</sup> Offset the City's contribution requirement for the 2007-2008 fiscal year from \$16,364,968 to \$9,806,955 (see Table 4) before consideration of additional contribution offset from prepaid employer contribution; and

<sup>-</sup> Provide a PRSB benefit of \$326.32 per month over the 2007 calendar year (Table 5).

SECTION 4: Reporting Information for the City of Fresno Fire and Police Retirement System

# Appendix B (continued)

# **Allocation of Actuarial Surplus**

	June 30		
<del>-</del>	2006	2005	
Table 1: Calculation of Actuarial Surplus			
(1) Actuarial Value of Assets	\$906,222,782	\$846,718,158	
(2) Actuarial Accrued Liability	722,722,173	670,101,466	
(3) Surplus: (1) – (2)	183,500,609	176,616,692	
(4) Contingency Reserve: 10% of (2)	72,272,217	67,010,147	
(5) Actuarial Surplus: (3) – (4)	111,228,392	109,606,545	
<ol> <li>Actuarial Surplus (Table 1)</li> <li>Amortization of Balance of Actuarial Surplus:</li> </ol>	\$111,228,392	109,606,545	
•			
a. Amortization Period     b. Amortization Factor	15 0.089385	15 0.087255	
c. Amortization of Balance of Actuarial Surplus (1) x (2b)	\$9,942,126	9,563,719	
(3) Projected Surplus for Next Year	110,052,496	108,690,862	
1.0825 x (1) – 1.04125 x (2c)			
(4) Amortization of Balance of Projected Actuarial Surplus:			
a. Amortization Period	15	15	
b. Amortization Factor	0.089385	0.087255	
c. Amortization of Balance of Projected Actuarial Surplus: (3) x (4b)	\$9,837,019	\$9,483,821	

# Appendix B (continued)

# **Allocation of Actuarial Surplus**

		June 30		
		2006	2005	
Table	3: Allocation of Distributable Actuarial Surplus:			
(1)	Distributable Actuarial Surplus	\$9,942,126	\$9,563,719	
(2)	City Allocation: (1) x 2/3	6,628,084	6,375,813	
(3)	PRSB Allocation: (1) – (2)	3,314,042	3,187,906	
	The City Allocation (2) (along with any City Surplus Reserve and City Prepaid Contribution Accounts) is available to reduce the City's contributions for the fiscal year that commences immediately following the date of the valuation.			
	The PRSB Allocations (along with the PRSB Reserve Account) is available to provide retirees, beneficiaries and DROP participants a monthly PRSB benefit during the calendar year that commences 6 months following the date of the valuation. The benefit is derived in Table 5.			
(4)	Next Year Projected Distributable Actuarial Surplus	9,837,019	9,483,821	
(5)	City Allocation (4) x 2/3	6,558,012	6,322,547	
	The City allocation (5) (along with any City Surplus Reserve and City Prepaid Contribution Accounts) 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 actual rather than the projected surplus will be used to determine the next calendar year's PRSB benefit.			

SECTION 4: Reporting Information for the City of Fresno Fire and Police Retirement System

# Appendix B (continued) Allocation of Actuarial Surplus

		Fisc	al Year 2007-20	08	Fisca	l Year 2006-20	07
	_	Tier 1	Tier 2	Total	Tier 1	Tier 2	Total
Table	4: City Contribution Requirements:						_
(1)	City normal cost rate	25.66%	16.28%	19.03%	25.71%	17.43%	20.02%
(2)	Projected Annual Payroll	\$25,206,681	\$60,791,974	\$85,998,655	\$24,179,071	\$58,313,644	\$82,492,715
(3)	City Allocation of Distributable Actuarial Surplus	2,591,966	3,966,046	6,558,012	2,515,373	4,112,711	6,628,084
(4)	City Surplus Reserve Account (From Prior Years)	0	0	0	0	0	0
(5)	Total Contribution Offsets (3) + (4)	2,591,966	3,966,046	6,558,012	2,515,373	4,112,711	6,628,084
(6)	Total Contribution Requirement (1) * (2)	6,468,034	9,896,933	16,364,967	6,216,439	10,164,068	16,380,507
(7)	City Contribution Requirement Prior To Application of Prepaid Employer Contribution Account $(6) - (5)$ , not less than $0$	3,876,068	5,930,887	9,806,955	3,701,066	6,051,357	9,752,423
(8)	Contribution Rate Adopted by the City for Fiscal Year 2006-2007						5.38%
(9)	Projected City Contributions Based on Rate Adopted by the City (8) * (2)				\$1,300,834	\$3,137,274	\$4,438,108
(10	) Net Additional City Contribution Before Application of Prepaid Employer Contribution Account (7) – (9)	3,876,068	5,930,887	9,806,955	2,400,232	2,914,083	5,314,315
(11	City's Prepaid Employer Contribution Account Balance			2,798,563			7,685,005
(12	) ½ year interest on (11)			115,440			317,006
(13	City's Fiscal Year Contribution After Application of Prepaid Employer Contribution Account (10) – (11) – (12), not less than 0	2,724,347	4,168,605	6,892,952	0	0	0
(14	) Projected City Surplus Reserve Account for future years			0			0
(15	) Projected Residual Prepaid Employer Contribution Account at Year End. (11) + (12) – (10) adjusted with ½ year interest, not less than 0			0			2,798,563

SECTION 4: Reporting Information for the City of Fresno Fire and Police Retirement System

Appendix B (continued)

# **Allocation of Actuarial Surplus**

		June 30		
		2006	2005	
<b>Table</b>	5: Calculation of PRSB and PRSB Reserve Account:			
(1)	PRSB Allocation of Distributable Actuarial Surplus	\$3,314,042	\$3,187,906	
(2)	95% x (1)	\$3,148,340	\$3,028,511	
(3)	Number of eligible participants (Retirees, Beneficiaries & DROP Participants)	911	894	
(4)	Preliminary Monthly PRSB Benefit (2) / (3) / 12	\$287.99	\$282.30	
(5)	Monthly Retiree Medical Trust Premium for the calendar year that commences 6 months following the date of valuation	\$819.00	\$711.00	
(6)	Benefit Shortfall: (5) – (4)	\$531.01	\$428.70	
(7)	PRSB Reserve Account	\$2,100,000	\$1,716,000	
(8)	Estimated July 1 to December 31 PRSB Payments	\$1,681,014	\$1,445,243	
(9)	Net PRSB Reserve Account 6 months following the date of valuation	\$418,986	\$270,757	
(10)	Draw from PRSB Reserve Account (lesser of (9) / (3) /12 or (6))	\$38.33	\$25.24	
(11)	Final monthly PRSB Benefit for next calendar year: (4) + (10)	\$326.32	\$307.54	
(12)	Estimated PRSB Reserve Account at the end of the next calendar year $(1) + (9) - [(11 * (3) * 12]$	\$165,698	\$159,374	

Note: The actual, rather than projected June 30, 2007 surplus, will be used to determine the 2008 calendar year PRSB benefit.

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