# STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

REPORT ON THE ACTUARIAL VALUATION AS OF JUNE 30, 2006



January 9, 2007

Board of Retirement Stanislaus County Employees' Retirement Association 1010 10<sup>th</sup> Street, Suite 5800 Modesto, CA 95353

#### Members of the Board:

We are pleased to present our report on the actuarial valuation of the Stanislaus County Employees' Retirement Association as of June 30, 2006. The actuarial valuation is based on audited financial data and unaudited member data provided by the Retirement Plan Administrator and summarized in this report.

All costs, liabilities and other factors under the plan were determined in accordance with generally accepted actuarial principles and procedures, using an actuarial cost method which we believe is reasonable. This report fully and fairly discloses the actuarial position of the plan.

In our opinion, the actuarial assumptions used are reasonable, taking into account the experience of the plan and reasonable expectations, and represent our best estimate of the anticipated experience under the plan. A summary of the actuarial assumptions and methods used in this actuarial valuation are shown in Section 8.

We look forward to discussing this report with the Board and wish to express our appreciation for the invaluable cooperation extended to us by the Retirement Staff during the course of this study.

Respectfully submitted,

Harold A. Loeb, A.S.A., E.A., M.A.A.A.

Principal and Consulting Actuary

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# Section 1: Executive Summary

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The table below summarizes the principal results from the current and the prior valuations.

	Actuarial Va	luation as of	Change Betwe	een Years
<u>Item</u>	June 30, 2005	June 30, 2006	Amount	Percent
Contribution Summary				
Average Employer Contribution Rate	11.19%	9.22%	(1.97)%	(17.6)%
Estimated Employer Contributions	\$ 23,702,000	\$ 20,255,000	\$(3,447,000)	(14.5)%
Average Member Contribution Rate	8.30%	7.99%	(0.31)%	(3.7)%
Estimated Member Contributions	\$ 17,573,000	\$ 17,393,000	\$(180,000)	(1.0)%
Market Value of Assets				
Market Value of Assets	\$ 1,176,263,656	\$ 1,275,608,550	\$ 99,344,894	8.4%
Actuarial Value of Assets	\$ 1,176,481,112	\$ 1,240,590,300	\$ 64,109,188	5.4%
Valuation Assets	\$ 1,049,690,942	\$ 1,154,048,207	\$104,357,265	9.9%
GASB No. 25 Funded Status				
Actuarial Accrued Liability	\$ 1,116,310,027	\$ 1,194,904,252	\$ 78,594,225	7.0%
Unfunded Actuarial Accrued				
Liability/(Surplus)	\$ 66,619,085	\$ 40,856,045	\$(25,763,040)	(38.7)%
Funded Ratio	94.0%	96.6%	2.6%	2.8%
Summary of Data				
Active Participants	4,347	4,366	19	0.4%
Participants with Deferred Benefits	891	915	24	2.7%
Retired Participants and Beneficiaries	<u>2,293</u>	<u>2,443</u>	<u>150</u>	6.5%
Total	7,531	7,724	193	2.6%
Retired Participant Statistics				
Total Annual Allowance	\$ 47,423,000	\$ 53,111,000	\$ 5,688,000	12.0%
Average Annual Allowance	\$ 20,682	\$ 21,744	\$ 1,062	5.1%
Active Participant Statistics				
Total Annual Compensation	\$ 211,681,000	\$ 219,768,000	\$ 8,087,000	3.8%
Average Annual Compensation	\$48,696	\$50,340	\$1,644	3.4%
Average Age	43.47	43.55	0.08	0.2%
Average Service	9.07	9.22	0.15	1.7%
Key Assumptions				
Interest rate	8.16%	8.16%	0.00%	0.00%
Inflation	4.50%	4.00%	(0.50)%	11.1%

#### **Purpose**

This report has been prepared by Buck Consultants to present the results of the June 30, 2006 actuarial valuation of the Stanislaus County Employees' Retirement Association. The main purposes of the report are to:

- 1. Review the experience of the Association over the past year and identify reasons for changes in costs;
- 2. Recommend economic assumptions to be used in computing Association liabilities and costs;
- 3. Calculate the annual contribution required to fund the Association in accordance with actuarial principles;
- 4. Project any emerging trends in Association costs;
- 5. Present items required for disclosure under Statement No. 25 of the Governmental Accounting Standards Board (GASB).

## Significant Changes Since Last Year

There have been no changes in benefit provisions since last year. There is an agreement between the County and the Board of Retirement to include the Contingency Reserve as of June 30, 2006 as a valuation asset.

There have been some changes in actuarial assumptions since last year. These changes were reported in our June 30, 2006 Experience Study.

#### **Contribution Rates**

During the year, the return on the valuation assets was 10.82%, more than the actuarial assumption of 8.16%. This resulted in a decrease in the calculated County contribution rate of 1.25%. Liability losses added 0.73%, and additional buyback service added 0.06% to the contribution rates.

The new contribution rates reflect economic and noneconomic assumptions recommended in our experience study report as of June 30, 2006. The assumption changes reduced the contribution rates by 1.51%. The net result of assumption changes and plan experience was to decrease the contribution rates by 1.97%.

## **Asset Returns**

During the twelve months ended June 30, 2006, the Association assets had an investment return of 9.90% on a market value basis and 10.82% on an actuarial value basis, compared to the actuarial assumption of 8.16%.

## **Funding Ratio - GASB 25**

The Governmental Accounting Standards Board Statement No. 25 (GASB 25) requires that the funding progress be shown based on the same funding method which was used to develop the system's contribution requirements, the Entry Age Normal Cost funding method. The funding ratio increased from 94.0% on June 30, 2005 to 96.6% on June 30, 2006.

## **Noneconomic Assumptions**

A triannual experience study of the members of the Association was performed at the time of the June 30, 2006 valuation. We analyzed the plan experience during the three-year period from July 1, 2003 through June 30, 2006 regarding service retirements, deaths, disabilities and terminations of employment, and compared the number of actual terminations to the incidence expected using the then current actuarial assumptions. Where the results differed materially, we recommended modifying the assumptions. We will continue to use the recommended actuarial assumptions until the next experience analysis, which is due to be performed at the time of the June 30, 2009 actuarial valuation.

## **Economic Assumptions**

In order to ensure that the same inflationary expectations are consistently included in all of the economic assumptions, we have used a building block approach in developing these assumptions. That is, we assumed that the investment return earned over the long-term is comprised of inflation and the real rate of return. In addition, we have assumed future salary increases are comprised of inflation, merit and longevity increases.

# **Inflation Assumption**

We recommend that the current 4.50% long-term level of inflation be reduced to 4.00% to reflect the recent low levels of inflation and to bring this assumption more in line with those used by other 37 Act retirement systems.

## **Investment Return Assumption**

Based upon future anticipated long-term returns on the Association's targeted asset mixes, we also recommend that the 3.50% future real rate of return be increased to 4.00%. In combination, these assumptions equate to an 8.00% long-term investment return assumption. Since interest is credited semi-annually, the nominal rate of 4.00% produces an effective rate of 8.16%.

#### **Salary Increase Assumption**

We incorporated the same inflation assumption, 4.00%, into the recommended long-term salary increase assumption. The overall effect of the merit and longevity increases is to reduce each year's total salary increase assumption by 0.50%.

## **Interest Crediting Policy**

The Board has adopted the following interest crediting policy for member reserves:

- The interest rate to be paid on December 31 and the subsequent June 30 be recommended and adopted by June 30 of the proceeding year
- The rate of interest credited to member reserves be the actual fund rate of return for the year ended June 30 that coincides with the actuarial valuation:
  - i. Net of management fees and management expenses, and
  - ii. Net of consultant, actuarial, audit fees, etc. not included in the operating budget, and
  - iii. Net of actual operating expenses, and
  - iv. Less 50 basis points (.50%)
- The minimum rate to be paid to members is 0.25% annually.
- The maximum rate to be paid to members is the earnings assumption rate (currently 8.16%).
- The difference between the rate actually credited to member accounts and the actuarial assumption rate for interest crediting be applied to a new Member Advance Reserve
- If no new interest rate is adopted, the previous year's rate shall remain in effect

#### **Actuarial Value of Assets**

The Board has adopted an actuarial value of assets method that recognizes the difference between expected and actual market returns, net of expenses, over a 5-year period. The resulting actuarial value cannot exceed 120% of market value or be less than 80% of market value. The net market value of assets as of June 30, 2006 was \$1,275,608,550 and the net current actuarial value of assets under this method was \$1,240,590,300, or about 97.3% of market value as of June 30, 2006.

#### **Actuarial Balance Sheet**

The actuarial balance sheet compares the present value of all future benefits anticipated to be paid to the current membership with the sources of funds to be used to provide these benefits. It illustrates that if recommended contribution levels made in the future prove out over time, current assets plus future employer and member contributions will be adequate to meet future benefit payments for the current membership.

#### **Assets**

The following discussion focuses on the assets of the Stanislaus County Employees' Retirement Association, which is a key component in the determination of the Association's funding status.

#### **Financial Exhibits**

Exhibit 2.1 presents a statement of net Plan assets at Market Value

Exhibit 2.2 presents a statement of changes in net Plan assets

Exhibit 2.3 presents the derivation of the Actuarial Value of Assets

Exhibit 2.4 presents the derivation of the asset gain and loss for the year

Exhibit 2.5 presents the historical returns on the Association's assets

#### **Market Value of Assets**

Represents the fair market value of assets as of June 30, 2006 and June 30, 2005 as reported by the Association.

#### **Actuarial Value of Assets**

The Board has adopted an actuarial value of assets method that recognizes the difference between expected and actual market returns, net of expenses, over a 5-year period. The resulting actuarial value cannot exceed 120% of market value or be less than 80% of market value. The net market value of assets as of June 30, 2005 was \$1,275,608,550 and the net current actuarial value of assets under this method was \$1,240,590,300, or about 97.3% of market value as of June 30, 2006.

## **Valuation Assets**

Represents the actuarial value of the fund, less the value of any special reserves that have been set aside for benefits that are to be funded outside the actuarially determined contribution rates. As of the valuation date, there are five special reserves totaling \$86,542,093.

#### **Asset Returns**

During the twelve months ended June 30, 2006, the Association assets had an investment return of 9.90% on a market value basis and 10.82% on the valuation assets, compared to the actuarial assumption of 8.16%.

# EXHIBIT 2.1 – STATEMENT OF PLAN NET ASSETS

# AS OF JUNE 30, 2006 AND JUNE 30, 2005

	Post Employment	Defined Benefit	2007	2005
	Health Insurance	Pension Plan	2006 Total	2005 Total
Assets	Histirance	1 Idii	Total	Total
Cash and Cash Equivalents	\$2,692,347	\$28,243,522	\$30,935,869	\$25,307,741
Receivables				
Interest and Dividends	571,193	5,991,988	6,563,181	4,500,012
Securities Transactions	797,928	8,370,499	9,168,427	3,473,841
Contributions	383,982	4,028,090	4,412,072	2,246,584
Other	274	2,874	3,148	5,509
Total Receivables	1,753,377	18,393,451	20,146,828	10,225,946
Fixed Assets				
Capitalized Software	-	739,533	739,533	654,664
Real Estate Occupied	-	1,737,956	1,737,956	, <u>-</u>
Real Estate Leased	-	1,088,298	1,088,298	-
Total Capital Assets	-	3,565,787	3,565,787	654,664
Investments (At Fair Value)				
Bonds	36,897,488	387,065,702	423,963,190	394,833,133
Stocks	69,777,113	731,982,820	801,759,933	752,232,150
Real Estate	-	-	-	2,479,788
Collateral on Loaned Securities	-	165,417,766	165,417,766	177,668,253
Total Investments	106,674,600	1,284,466,289	1,391,140,889	1,327,213,324
Total Assets	\$111,120,324	\$1,334,669,049	\$1,445,789,373	\$1,363,401,675
Liabilities				
Accounts Payable	-	4,763,057	4,763,057	9,469,766
Collateral Held for Loaned Securities	-	165,417,766	165,417,766	177,668,253
Total Payables	-	170,180,823	170,180,823	187,138,019
Net Assets Held in Trust For Benefits	\$111,120,324	\$1,164,488,226	\$1,275,608,550	\$1,176,263,656

# EXHIBIT 2.2 – STATEMENT OF CHANGES IN PLAN NET ASSETS

# AS OF JUNE 30, 2006 AND JUNE 30, 2005

	Post Employment Health Insurance	Defined Benefit Pension Plan	2006 Total	2005 Total
Additions				
Contributions:				
Employer	-	\$24,421,977	\$24,421,977	\$19,792,748
Plan Members	-	19.860,676	19,860,676	19,088,340
Total Contribution	-	\$44,282,653	\$44,282,653	\$38,881,088
Investment Income (Loss):				
Net appreciation (depreciation) in fair				
value of assets	-	84,634,957	84,634,957	60,546,322
Interest & Dividends	-	35,692,980	35,692,980	32,938,537
Total Investment Income/(Loss)	-	120,327,937	120,327,937	93,484,860
Less: Investment Expense	-	(3,453,356)	(3,453,356)	(3,339,926)
Net Investment Income/(Loss)	-	116,874,581	116,874,581	90,144,934
Securities Lending Activities:				
Securities Lending Income	-	8,267,484	8,267,484	3,316,479
Less: Securities Lending Expenses	_	(7,920,296)	(7,920,296)	(3,007,384)
Net Securities Lending Income	-	347,188	347,188	309,095
Miscellaneous Income	-	51,174	51,174	249,166
Total Additions/(Declines)	-	\$161,555,596	\$161,555,596	\$129,584,283
Deductions				
Pension Benefits	-	50,506,696	50,506,696	45,881,596
Insurance Subsidies	7,263,202	, , , <u>-</u>	7,263,202	7,294,513
Member Refunds	-	2,482,105	2,482,105	2,347,241
Administrative Expenses	115,931	1,482,769	1,598,700	1,404,838
Total Deductions	\$7,739,133	\$54,471,570	\$62,210,703	\$56,928,188
Net Increase/(Decrease)	\$(7,739,133)	\$107,084,026	\$99,344,893	\$72,656,095
Transfer of plan assets	23,975,191	(23,975,191)	-	-
Net Assets Held in Trust For Benefits				
Beginning of year	\$94,884,266	\$1,081,379,391	\$1,176,263,657	\$1,103,607,562
End of year	\$111,120,324	\$1,164,488,266	\$1,275,608,550	\$1,176,263,656

EXHIBIT 2.3 – ACTUARIAL VALUE OF ASSETS

1.		Contributions	Benefit Payments	Expected Investment Return	Actual Net Investment Return	Additional Earnings	Portion Deferred	Deferred Earnings
	2002	\$25,280,195	\$39,665,643	\$80,063,142	\$(44,468,326)	\$(124,531,468)	0%	-
	2003	34,728,482	44,996,768	83,479,883	47,412,544	(36,067,339)	20%	\$(7,213,468)
	2004	36,055,481	49,252,949	86,640,917	153,968,098	67,327,181	40%	26,930,872
	2005	38,881,088	55,523,350	90,899,025	89,298,356	(1,600,669)	60%	(960,401)
	2006	44,282,653	60,612,003	95,347,685	115,674,243	20,326,558	80%	16,261,246
	Total							\$35,018,250
2.	Market	Value of Assets	as of June 30,	2006				1,275,608,550
3.	Actuar	ial Value of Asse	ets as of June 30	), 2006: (2)-(1)				1,240,590,300
4.	Corrido	or Limit						
	a. 8	0% of Net Marke	et Value					1,020,486,840
	b. 1	20% of Net Mark	cet Value					1,530,730,260
5.	Actuar	ial Value of Asse	ts after corrido	r as of June 30,	2006			1,240,590,300
6.	Health	Insurance Reserv	ve					79,604,893
	Burial	Allowance Reser	ve					2,552,206
	Special	COLA Reserve						1,924,921
	Tier 3	Disability Reserv	e					2,390
	Legal (	Contingencies Re	serve				_	2,457,683
	Total S	pecial Reserves						86,542,093
7.	Valuati	ion Assets as of J	une 30, 2006:	(5)-(6)				\$1,154,048,207

# EXHIBIT 2.4 – ASSET GAIN/LOSS

	Market Value	Valuation Value
Total as of June 30, 2005	\$ 1,176,263,656	\$ 1,049,690,942
Changes During the Year		
County Contributions	24,421,977	24,421,977
Member Contributions	19,860,676	19,860,676
Benefit Payments	(60,612,003)	(52,988,801)
Expenses	(5,052,056)	(4,936,143)
Gross Investment Return	120,726,300	118,471,852
Total Changes	99,344,894	104,357,265
Total as of June 30, 2006	\$ 1,275,608,550	\$ 1,154,048,207
Expected Value as of June 30, 2006	\$ 1,255,264,246	\$ 1,126,291,329
Gain/(Loss)	\$ 20,344,304	\$ 27,756,878
Rate of Return	9.90%	10.82%

EXHIBIT 2.5 – HISTORICAL RETURNS ON ASSOCIATION ASSETS

Year Ended June 30,	Annualized Rate of Return @ Market Value	Annualized Rate of Return @ Valuation Value	Increase in Consumer Price Index**
1988			4.0%
1989			5.2%
1990			4.7%
1991			4.7%
1992			3.1%
1993			3.0%
1994			2.5%
1995			3.0%
1996			2.8%
1997	20.4%*		2.3%
1998	13.4%		1.7%
1999	10.6%		2.0%
2000	6.3%		3.7%
2001	7.0%		3.2%
2002	(4.5)%		1.1%
2003	5.2%	4.9%	2.1%
2004	16.1%	6.3%	3.3%
2005	8.2%	5.5%	2.5%
2006	9.9%	10.8%	4.3%
Compounded Average	9.1%	6.6%	3.1%

<sup>\*</sup> Source: June 30, 1997 Financial Report.

<sup>\*\*</sup> Based on All Urban Consumer - U.S. City Average, June indices.

Liabilities

This section focuses on the Association's actuarial liabilities and the cost components that are derived from those liabilities.

**Actuarial Value of Assets** 

Represents the amount of assets already accumulated by the Association at Actuarial Value (item 1 in Exhibit 3.1).

**Present Value of Future Member Contributions** 

Represents the present value of the contributions anticipated to be received in the future from the current members (item 2 in Exhibit 3.1).

Present Value of Future Employer Normal Cost Contributions Represents the present value of future employer normal costs with respect to current members (item 3 in Exhibit 3.1).

**Unfunded Actuarial Accrued Liability (Surplus)**  Represents the difference between the present value of the benefits to be paid from the Association and the total of the existing assets plus the present value of the future normal costs and future member contributions. In the text we will abbreviate it as UAAL. The UAAL is amortized over 20 years from June 30, 2006 in fixed dollar amounts (item 4 in Exhibit 3.1).

**Total Actuarial Assets** 

Represents the total of all current assets at actuarial value plus the value of all future member and employer contributions for normal cost plus current and future employer costs to amortize the UAAL (item 5 in Exhibit 3.1).

**Present Value of Benefits** 

The valuation determines the amount and timing of all future payments that will be made by the Association. For active members, the present value of benefits includes the value of all benefits earned to date and all benefits to be earned in the future. For all members, the present value of benefits includes the value of benefits payable to members and survivors over their remaining lifetimes. The present value is then determined by discounting these payments at the assumed interest rate to June 30, 2006, the date of the valuation. The present value of supplemental benefits is shown at reserve values (items 6 to 12 in Exhibit 3.1).

## **Actuarial Accrued Liability**

Employer contributions have been determined under the Entry Age Normal Cost Method, permitted by Government Code Section 31453.5. The Entry Age Normal Cost method defines the Normal Cost as the level percentage of salary necessary to fund the projected future benefit for each participant over the period from his date of entry to his projected date of separation from active service. The Actuarial Accrued Liability is the cost allocated to years prior to the actuarial valuation date; it is the excess of the total value of benefits over the value of future member contributions and the value of future employer Normal Costs. The difference between the Actuarial Accrued Liability and the actuarial value of assets is called the Unfunded Actuarial Accrued Liability.

# **Unfunded Actuarial Accrued Liability**

The valuation compares the actuarial value of assets to the Actuarial Accrued Liabilities. The shortfall, if any, is called the Unfunded Actuarial Accrued Liability (UAAL) and is amortized over 20 years from June 30, 2006 in fixed dollar amounts.

#### **Actuarial Gain or Loss**

The difference between the UAAL and the expected UAAL is an actuarial gain or loss. The actuarial gain or loss is comprised of two components: an asset gain or loss (from investment experience different than expected) and a liability gain or loss (from other sources, such as salary growth, turnover and retirement patterns and life expectancies different than expected).

#### **Funded Ratio**

Measures the portion of the AAL already funded by the current assets at actuarial value.

# Exhibit 3.1 – ACTUARIAL BALANCE SHEET

	ASSETS		
1.	Actuarial value of assets	\$	1,240,590,300
2.	Present value of future contributions by members		124,064,733
3.	Present value of future employer contributions for normal cost		118,508,669
4.	Present value of other future employer contributions (UAAL)		40,856,045
5.	Total actuarial assets	\$	1,524,019,747
6.	Present value of retirement allowances payable to retired members and their survivors	\$	619,108,923
7.	Present value of service retirement allowances payable to presently active members and their survivors		602,647,585
8.	Present value of allowances payable to current and future vested terminated members and their survivors		106,832,824
9.	Present value of disability retirement allowances payable to presently active members and their survivors		59,890,220
10.	Present value of death benefits payable on behalf of presently active members		10,976,114
11.	Present value of members' contributions to be returned upon withdrawal		38,021,988
12.	Special Reserves	-	86,542,093
13.	Total actuarial liabilities	\$	1,524,019,747

# EXHIBIT 3.2 – ACTUARIAL ACCRUED LIABILITY

- 1		
	14. Present value of future benefits (items 6 to 12)	\$ 1,524,019,747
	15. Present value of future contributions by members and employers (2)+(3)	242,573,402
	16. Actuarial accrued liability (14)–(15)	1,281,446,345
	17. Actuarial value of assets	1,240,590,300
	18. Unfunded actuarial accrued liability (UAAL) (16)–(17)	\$ 40,856,045
	19. Funded ratio (including Special Reserves)	96.8%

# EXHIBIT 3.3 – ACTUARIAL GAIN AND LOSS

1.	Unfunded actuarial accrued liability as of July 1, 2005			\$	66,619,085
2.	Change due to contributions:				
	(a) Normal cost	\$	34,710,026		
	(b) Interest on (a)		1,416,169		
	(c) Interest on (1)		5,436,117		
	(d) Contributions (member and employer)		(44,282,653)		
	(e) Interest on (d)	_	(1,806,732)		
	(f) Net change: $(a)+(b)+(c)+(d)+(e)$		(4,527,073)	\$	(4,527,073)
3.	Expected unfunded actuarial accrued liability: (1)+(2)			\$	62,092,012
4.	Change due to actuarial experience:				
	(a) Actuarial (gain)/loss from liability sources	\$	21,366,204		
	(b) Actuarial (gain)/loss from asset sources	_	(27,756,878)		
	(c) Net change: (a)+(b)	\$	(6,390,674)	\$	(6,390,674)
5.	Unfunded actuarial accrued liability before changes: (1)+(2)+(4)			\$	55,701,338
6.	Change in actuarial assumptions				(15,703,900)
7.	Change in plan provisions				0
8.	Change in actuarial methods				0
9.	Additional Buyback Service			<u>-</u>	858,607
10.	Unfunded actuarial accrued liability as of June 30, 2006: $(5)+(6)+(7)+(8)+(9)$			\$	40,856,045

#### **Member Contributions**

This section focuses on the determination of the member contribution rates to the Association.

#### **Member Basic Contributions**

Sections 31621.3 and 31621.9 set forth the basis for the determination of the normal rates of contribution for General Tier 1/4 and Tier 2/5 members, respectively. Sections 31639.5 and 31639.25 set forth the basis for the normal rates of contribution for Safety Tier 1/4 and Tier 2/5 members, respectively.

The law further provides that the contribution rates of members will be based on the age nearest birthday at the time of entrance into the Retirement Association. Section 31453 states that no adjustment will be included in the rates of contribution for time prior to the effective date of any revisions.

Member Basic Contributions are based on entry age into the Association and the following actuarial assumptions:

- 1. Actuarial investment return (8.16%)
- 2. Salary increase (average of 5.00%)
- 3. Life expectancy

The basic employee contribution rates for General members were calculated on a unisex basis using the 1994 Group Annuity Mortality Table for Males with a 3-year setback. The Safety basic employee rates were based upon the 1994 Group Annuity Mortality Table for Males with no setback.

# **Cost-of-Living Contributions**

The employee portion of the cost-of-living provision is expressed as a percentage of the employees' normal contribution rates. We are recommending that the cost-of-living percentages be decreased from 29.83% to 28.41% for General Members and decreased from 52.92% to 52.48% for Safety Members with enhanced benefits. For the Other Employers without enhanced benefits, the cost-of-living percentage is 38.26%.

A summary of the current and recommended average employee contribution rates is provided below.

EXHIBIT 4.1 – AVERAGE MEMBERS' CURRENT CONTRIBUTION RATES

	Average Member Basic and Cost of Living Contribution Rates  General Safety				
	Tier 4	Tier 5	Tier 4	Tier 5	
Current Rates	3.48%	8.21%	5.36%	11.63%	
Recommended Rates	3.31%	7.74%	5.31%	10.98%	

Recommended employee rates at sample ages, with and without the cost of living, are shown below.

EXHIBIT 4.2 – SAMPLE MEMBERS' CURRENT CONTRIBUTION RATES

	Sample Ge	neral Member Contribut	ion Rates*				
	Ti	er 4	Tier 5				
Entry Age	Current	Recommende d	Current	Recommende d			
25	3.70%	3.38%	7.40%	6.75%			
35	4.19	3.94	8.39	7.90			
45	4.91	4.75	9.83	9.50			

	Sample Sa	nfety Member Contributi	on Rates*				
	Ti	er 4	Tier 5				
Entry Age	Current	Recommende d	Current	Recommende d			
25	5.73%	5.37%	11.47%	10.73%			
35	6.56	6.31	13.12	12.61			
49	8.12	7.56	16.26	15.11			

<sup>\*</sup>Applicable to the monthly salary over \$350

The following pages set forth the complete set of members' contribution rates with and without the automatic cost of living benefit. The interest rate, mortality table, inflation rate and cost of living benefit are indicated on the bottom of the table.

# EXHIBIT 4.3 - GENERAL TIER 1 AND TIER 2 MEMBERS' CONTRIBUTION RATES

(expressed as a percentage of monthly compensation)

# RECOMMENDED

# SECTION 31676.12 AND SECTION 31676.1

-		Bas	SIC		COL*				
Entry	Fin	st	Ov	er	Fir	rst	Ov	ver	
Age	\$35	50	\$35	50	\$3!	50	\$3	50	
,	Tier 1	Tier 2	Tier 1	Tier 2	<u>Tier 1</u>	Tier 2	Tier 1	Tier 2	
16	1.64%	2.61%	2.46%	3.92%	0.63%	1.00%	0.94%	1.50%	
17	1.65	2.63	2.47	3.94	0.63	1.01	0.95	1.51	
18	1.66	2.65	2.49	3.97	0.63	1.01	0.95	1.52	
19	1.67	2.67	2.51	4.00	0.64	1.02	0.96	1.53	
20	1.69	2.69	2.53	4.04	0.65	1.03	0.97	1.55	
21	1.70	2.72	2.55	4.08	0.65	1.04	0.98	1.56	
22	1.72	2.75	2.58	4.12	0.66	1.05	0.99	1.58	
23	1.74	2.77	2.61	4.16	0.67	1.06	1.00	1.59	
24	1.76	2.81	2.64	4.21	0.67	1.07	1.01	1.61	
25	1.78	2.84	2.67	4.26	0.68	1.09	1.02	1.63	
26	1.70	2.88	2.71	4.32	0.69	1.10	1.04	1.65	
27	1.83	2.92	2.74	4.38	0.70	1.12	1.05	1.68	
28	1.85	2.96	2.74	4.44	0.71	1.13	1.06	1.70	
	1.89								
29		3.01	2.83	4.51	0.72	1.15	1.08	1.73	
30	1.91	3.05	2.87	4.58	0.73	1.17	1.10	1.75	
31	1.95	3.11	2.92	4.66	0.75	1.19	1.12	1.78	
32	1.98	3.16	2.97	4.74	0.76	1.21	1.14	1.81	
33	2.02	3.22	3.03	4.83	0.77	1.23	1.16	1.85	
34	2.05	3.28	3.08	4.92	0.79	1.25	1.18	1.88	
35	2.10	3.35	3.15	5.02	0.81	1.28	1.21	1.92	
36	2.14	3.41	3.21	5.12	0.82	1.31	1.23	1.96	
37	2.18	3.48	3.27	5.22	0.83	1.33	1.25	2.00	
38	2.22	3.55	3.33	5.32	0.85	1.36	1.27	2.04	
39	2.27	3.61	3.40	5.42	0.87	1.38	1.30	2.07	
40	2.31	3.68	3.46	5.52	0.88	1.41	1.32	2.11	
41	2.35	3.75	3.53	5.63	0.90	1.43	1.35	2.15	
42	2.40	3.83	3.60	5.74	0.92	1.47	1.38	2.20	
43	2.45	3.90	3.67	5.85	0.93	1.49	1.40	2.24	
44	2.49	3.97	3.73	5.96	0.95	1.52	1.43	2.28	
45	2.53	4.05	3.80	6.07	0.97	1.55	1.45	2.32	
46	2.59	4.12	3.88	6.18	0.99	1.57	1.48	2.36	
47	2.63	4.20	3.95	6.30	1.01	1.61	1.51	2.41	
48	2.68	4.27	4.02	6.41	1.03	1.63	1.54	2.45	
49	2.73	4.35	4.09	6.53	1.04	1.67	1.56	2.50	
50	2.78	4.43	4.17	6.65	1.07	1.69	1.60	2.54	
51	2.83	4.51	4.25	6.77	1.09	1.73	1.63	2.59	
52	2.88	4.60	4.32	6.90	1.10	1.76	1.65	2.64	
53	2.93	4.68	4.40	7.02	1.12	1.79	1.68	2.69	
54	2.99	4.77	4.48	7.15	1.14	1.83	1.71	2.74	
55	3.04	4.85	4.56	7.27	1.16	1.85	1.74	2.78	
56	3.09	4.93	4.64	7.40	1.19	1.89	1.78	2.83	
57	3.15	5.02	4.72	7.53	1.21	1.92	1.81	2.88	
58	3.20	5.11	4.80	7.66	1.23	1.95	1.84	2.93	
59									
& Over	3.26	5.19	4.89	7.79	1.25	1.99	1.87	2.98	
INTEREST:			8.16%						
INFLATION:			4.00%						
COLA:			3.00%						
MORTALITY:			94 GA (Male, -3)						
			% of basic rates.						

# EXHIBIT 4.4 - GENERAL TIER 4 AND TIER 5 MEMBERS' CONTRIBUTION RATES

(expressed as a percentage of monthly compensation)

# **CURRENT**

# **SECTION 31676.14**

		Bas	sic		COL*				
Entry	Firs		Ove			irst		ver	
Age	\$35		\$35	50	\$3	350	\$3	350	
	Tier 4	Tier 5	Tier 4	Tier 5	Tier 4	Tier 5	Tier 4	Tier 5	
16	1.80%	3.61%	2.70%	5.41%	0.54%	1.08%	0.81%	1.61%	
17	1.81	3.61	2.71	5.42	0.54	1.08	0.81	1.62	
18	1.81	3.63	2.72	5.44	0.54	1.08	0.81	1.62	
19	1.82	3.65	2.73	5.47	0.54	1.09	0.81	1.63	
20	1.83	3.67	2.75	5.50	0.55	1.09	0.82	1.64	
21	1.84	3.69	2.76	5.53	0.55	1.10	0.82	1.65	
22	1.85	3.71	2.78	5.56	0.55	1.11	0.83	1.66	
23	1.87	3.73	2.80	5.60	0.56	1.11	0.84	1.67	
24	1.88	3.77	2.82	5.65	0.56	1.12	0.84	1.69	
25	1.90	3.80	2.85	5.70	0.57	1.13	0.85	1.70	
26	1.91	3.83	2.87	5.75	0.57	1.14	0.86	1.72	
27	1.93	3.87	2.90	5.81	0.58	1.15	0.87	1.73	
28	1.95	3.91	2.93	5.87	0.58	1.17	0.87	1.75	
29	1.98	3.96	2.97	5.94	0.59	1.18	0.89	1.77	
30	2.01	4.01	3.01	6.01	0.60	1.20	0.90	1.79	
31	2.03	4.06	3.05	6.09	0.61	1.21	0.91	1.82	
32	2.06	4.11	3.09	6.17	0.61	1.23	0.92	1.84	
33	2.09	4.17	3.13	6.26	0.62	1.24	0.93	1.87	
34	2.12	4.24	3.18	6.36	0.63	1.26	0.95	1.90	
35	2.15	4.31	3.23	6.46	0.64	1.29	0.96	1.93	
36	2.19	4.38	3.28	6.57	0.65	1.31	0.98	1.96	
30 37	2.19	4.36 4.45	3.34		0.67	1.33	1.00	1.90	
38	2.23	4.45 4.52	3.34	6.68 6.78	0.67	1.35	1.00	2.02	
39	2.30	4.59	3.45	6.89	0.69	1.37	1.03	2.06	
40	2.33	4.67	3.50	7.00	0.70	1.39	1.04	2.09	
41	2.37	4.74	3.56	7.11	0.71	1.41	1.06	2.12	
42	2.41	4.82	3.61	7.23	0.72	1.44	1.08	2.16	
43	2.45	4.89	3.67	7.34	0.73	1.46	1.09	2.19	
44	2.49	4.97	3.73	7.45	0.74	1.48	1.11	2.22	
45	2.52	5.05	3.78	7.57	0.75	1.51	1.13	2.26	
46	2.56	5.13	3.84	7.69	0.76	1.53	1.15	2.29	
47	2.60	5.21	3.90	7.81	0.78	1.55	1.16	2.33	
48	2.64	5.29	3.96	7.93	0.79	1.58	1.18	2.37	
49	2.68	5.37	4.02	8.05	0.80	1.60	1.20	2.40	
50	2.73	5.45	4.09	8.17	0.81	1.63	1.22	2.44	
51	2.77	5.53	4.15	8.29	0.83	1.65	1.24	2.47	
52	2.81	5.61	4.21	8.42	0.84	1.67	1.26	2.51	
53	2.85	5.70	4.27	8.55	0.85	1.70	1.27	2.55	
54									
& Over	2.89	5.79	4.34	8.68	0.86	1.73	1.29	2.59	
INTEREST:			8.16%						
INFLATION:			4.50%						
COLA:			3.00%						
MORTALITY:			94 GA (Male, -3)						
			% of basic rates.						

STANISLAUS COUNTY
EMPLOYEES' RETIREMENT ASSOCIATION
JUNE 30, 2006 VALUATION REPORT

# EXHIBIT 4.5 - SAFETY TIER 4 AND TIER 5 MEMBERS' CONTRIBUTION RATES

(expressed as a percentage of monthly compensation)

# **CURRENT**

# **SECTION 31664.1**

		Bas	sic		COL*					
Entry Age	Fir: \$35		Ov \$35			irst 350	-	ver 350		
<u> </u>	Tier 4	Tier 5	Tier 4	Tier 5	Tier 4	Tier 5	Tier 4	Tier 5		
20	2.38%	4.75%	3.57%	7.13%	1.26%	2.51%	1.89%	3.77%		
21	2.40	4.80	3.60	7.20	1.27	2.54	1.91	3.81		
22	2.42	4.85	3.63	7.27	1.28	2.57	1.92	3.85		
23	2.45	4.89	3.67	7.34	1.30	2.59	1.94	3.88		
24	2.47	4.95	3.71	7.42	1.31	2.62	1.96	3.93		
25	2.50	5.00	3.75	7.50	1.32	2.65	1.98	3.97		
26	2.53	5.06	3.80	7.59	1.34	2.68	2.01	4.02		
27	2.56	5.12	3.84	7.68	1.35	2.71	2.03	4.06		
28	2.59	5.19	3.89	7.78	1.37	2.75	2.06	4.12		
29	2.63	5.25	3.94	7.88	1.39	2.78	2.09	4.17		
30	2.66	5.32	3.99	7.98	1.41	2.82	2.11	4.22		
31	2.70	5.39	4.05	8.09	1.43	2.85	2.14	4.28		
32	2.73	5.47	4.10	8.21	1.44	2.89	2.17	4.34		
33	2.77	5.55	4.16	8.33	1.47	2.94	2.20	4.41		
34	2.82	5.63	4.23	8.45	1.49	2.98	2.24	4.47		
35	2.86	5.72	4.29	8.58	1.51	3.03	2.27	4.54		
36	2.91	5.81	4.36	8.72	1.54	3.07	2.31	4.61		
37	2.95	5.91	4.43	8.86	1.56	3.13	2.34	4.69		
38	3.00	5.99	4.50	8.99	1.59	3.17	2.38	4.76		
39	3.05	6.09	4.57	9.14	1.61	3.22	2.42	4.84		
40	3.09	6.19	4.64	9.28	1.64	3.28	2.46	4.91		
41	3.14	6.28	4.71	9.42	1.66	3.32	2.49	4.99		
42	3.19	6.38	4.78	9.57	1.69	3.38	2.53	5.06		
43	3.24	6.48	4.86	9.72	1.71	3.43	2.57	5.14		
44	3.29	6.57	4.93	9.86	1.74	3.48	2.61	5.22		
45	3.34	6.67	5.01	10.01	1.77	3.53	2.65	5.30		
46	3.39	6.78	5.08	10.17	1.79	3.59	2.69	5.38		
47	3.44	6.88	5.16	10.32	1.82	3.64	2.73	5.46		
48	3.49	6.98	5.24	10.47	1.85	3.69	2.77	5.54		
49	0.17	0.70	0.21	10.17	1.00	0.07	2.77	0.01		
Over	3.54	7.09	5.31	10.63	1.87	3.75	2.81	5.63		
INTEREST:			8.16%							
INFLATION:			4.50%							
COLA:			3.00%							
MORTALITY:			94 GA (Male)							
WORTALIT.		* 52 02	% of basic rates.							

# EXHIBIT 4.6 - GENERAL TIER 4 AND TIER 5 MEMBERS' CONTRIBUTION RATES

(expressed as a percentage of monthly compensation)

# RECOMMENDED

# **SECTION 31676.14**

		Bas	sic	COL*				
Entry Age	Firs \$35		Ove \$35		Fin \$35		Ov \$3!	
	Tier 4	Tier 5	Tier 4	Tier 5	Tier 4	Tier 5	Tier 4	Tier 5
16	1.63%	3.25%	2.44%	4.88%	0.46%	0.93%	0.69%	1.39%
17	1.63	3.27	2.45	4.91	0.47	0.93	0.70	1.39
18	1.65	3.29	2.47	4.94	0.47	0.93	0.70	1.40
19	1.66	3.31	2.49	4.97	0.47	0.94	0.71	1.41
20	1.67	3.34	2.51	5.01	0.47	0.95	0.71	1.42
21	1.69	3.37	2.53	5.05	0.48	0.95	0.72	1.43
22	1.70	3.40	2.55	5.10	0.48	0.97	0.72	1.45
23	1.71	3.43	2.57	5.15	0.49	0.97	0.73	1.46
24	1.73	3.47	2.60	5.20	0.49	0.99	0.74	1.48
25	1.75	3.51	2.63	5.26	0.50	0.99	0.75	1.49
26	1.77	3.55	2.66	5.33	0.51	1.01	0.76	1.51
27	1.80	3.60	2.70	5.40	0.51	1.02	0.77	1.53
28	1.82	3.65	2.73	5.47	0.52	1.03	0.77	1.55
29	1.85	3.70	2.77	5.55	0.53	1.05	0.79	1.58
30	1.88	3.75	2.82	5.63	0.53	1.07	0.80	1.60
31	1.91	3.81	2.86	5.72	0.54	1.09	0.81	1.63
32	1.94	3.88	2.91	5.82	0.55	1.10	0.83	1.65
33	1.97	3.95	2.96	5.92	0.56	1.10	0.84	1.68
33 34	2.01	4.02	3.01	6.03	0.57	1.12	0.86	1.00
34 35	2.01	4.02 4.10		6.03	0.57	1.14	0.86	
			3.07					1.75
36	2.09	4.17	3.13	6.26	0.59	1.19	0.89	1.78
37	2.13	4.25	3.19	6.38	0.61	1.21	0.91	1.81
38	2.17	4.33	3.25	6.50	0.61	1.23	0.92	1.85
39	2.21	4.42	3.31	6.63	0.63	1.25	0.94	1.88
40	2.25	4.50	3.38	6.75	0.64	1.28	0.96	1.92
41	2.29	4.59	3.44	6.88	0.65	1.30	0.98	1.95
42	2.33	4.67	3.50	7.01	0.66	1.33	0.99	1.99
43	2.38	4.76	3.57	7.14	0.67	1.35	1.01	2.03
44	2.42	4.85	3.63	7.27	0.69	1.38	1.03	2.07
45	2.47	4.93	3.70	7.40	0.70	1.40	1.05	2.10
46	2.51	5.02	3.77	7.53	0.71	1.43	1.07	2.14
47	2.55	5.11	3.83	7.67	0.73	1.45	1.09	2.18
48	2.60	5.21	3.90	7.81	0.74	1.48	1.11	2.22
49	2.65	5.30	3.97	7.95	0.75	1.51	1.13	2.26
50	2.70	5.39	4.05	8.09	0.77	1.53	1.15	2.30
51	2.75	5.49	4.12	8.23	0.78	1.56	1.17	2.34
52	2.79	5.59	4.19	8.38	0.79	1.59	1.19	2.38
53	2.84	5.69	4.26	8.53	0.81	1.61	1.21	2.42
54								
& Over	2.89	5.79	4.34	8.68	0.82	1.65	1.23	2.47
ITEREST:			8.16%					
IFLATION:			4.00%					
OLA:			3.00%					
ORTALITY:			94 GA (Male, -3)					
			% of basic rates.					

# EXHIBIT 4.7 - SAFETY TIER 4 AND TIER 5 MEMBERS' CONTRIBUTION RATES

(expressed as a percentage of monthly compensation)

# RECOMMENDED

# **SECTION 31664.1**

		Bas	sic		COL*					
Entry	Fire		Ov		Fir		Ov			
Age	\$35	50	\$35		\$35		\$350			
	Tier 4	<u>Tier 5</u>	Tier 4	Tier 5	Tier 4	Tier 5	Tier 4	Tier 5		
20	2.20%	4.39%	3.30%	6.59%	1.15%	2.31%	1.73%	3.46%		
21	2.23	4.45	3.34	6.67	1.17	2.33	1.75	3.50		
22	2.25	4.51	3.38	6.76	1.18	2.37	1.77	3.55		
23	2.28	4.57	3.42	6.85	1.19	2.39	1.79	3.59		
24	2.31	4.63	3.47	6.94	1.21	2.43	1.82	3.64		
25	2.35	4.69	3.52	7.04	1.23	2.46	1.85	3.69		
26	2.38	4.76	3.57	7.14	1.25	2.50	1.87	3.75		
27	2.41	4.83	3.62	7.25	1.27	2.53	1.90	3.80		
28	2.45	4.91	3.68	7.36	1.29	2.57	1.93	3.86		
29	2.49	4.98	3.74	7.47	1.31	2.61	1.96	3.92		
30	2.53	5.06	3.80	7.59	1.33	2.65	1.99	3.98		
31	2.57	5.15	3.86	7.72	1.35	2.70	2.03	4.05		
32	2.61	5.23	3.92	7.85	1.37	2.75	2.06	4.12		
33	2.66	5.33	3.99	7.99	1.39	2.79	2.09	4.19		
34	2.71	5.42	4.06	8.13	1.42	2.85	2.13	4.27		
35	2.76	5.51	4.14	8.27	1.45	2.89	2.17	4.34		
36	2.81	5.62	4.21	8.43	1.47	2.95	2.21	4.42		
37	2.86	5.73	4.29	8.59	1.50	3.01	2.25	4.51		
38	2.91	5.83	4.37	8.74	1.53	3.06	2.29	4.59		
39	2.97	5.94	4.45	8.91	1.56	3.12	2.34	4.68		
40	3.02	6.05	4.53	9.07	1.59	3.17	2.38	4.76		
41	3.08	6.15	4.62	9.23	1.61	3.23	2.42	4.84		
42	3.13	6.27	4.70	9.40	1.65	3.29	2.47	4.93		
43	3.19	6.38	4.79	9.57	1.67	3.35	2.51	5.02		
44	3.25	6.49	4.87	9.74	1.71	3.41	2.56	5.11		
45	3.31	6.61	4.96	9.91	1.73	3.47	2.60	5.20		
46	3.37	6.73	5.05	10.09	1.77	3.53	2.65	5.30		
47	3.42	6.85	5.13	10.27	1.79	3.59	2.69	5.39		
48	3.48	6.97	5.22	10.45	1.83	3.65	2.74	5.48		
49										
Over	3.54	7.09	5.31	10.63	1.86	3.72	2.79	5.58		
NTEREST:			8.16%	1.						
NFLATION:			4.00%							
COLA:			3.00%							
MORTALITY:			94 GA (Male)							
VIONTALITI.		* 50 40	% of basic rates.							

#### **Employer Contributions**

This section focuses on the determination of the employer contribution rates to the Association.

## **Employer Contribution rates**

Employer contributions have been determined under the Entry Age Normal Cost Method, permitted by Government Code Section 31453.5. The Entry Age Normal Cost method defines the Normal Cost as the level percentage of salary necessary to fund the projected future benefit over the period from the date of entry to the date of separation from active service. The Actuarial Accrued Liability is the cost allocated to years prior to the actuarial valuation date; it is the excess of the total value of benefits over the value of future member contributions and the value of future Normal Costs. The difference between the Actuarial Accrued Liability and the plan assets is called the Unfunded Actuarial Accrued Liability and is amortized over 20 years from June 30, 2006 in fixed dollar amounts.

During the year, the return on the valuation assets was 10.82%, more than the actuarial assumption of 8.16%. This resulted in a decrease in the calculated County contribution rate of 1.25%. Liability losses added 0.73%, and additional buyback service added 0.06% to the contribution rates.

The new contribution rates reflect economic and noneconomic assumptions recommended in our experience study report as of June 30, 2006. The assumption changes reduced the contribution rates by 1.51%. The net result of assumption changes and plan experience was to decrease the contribution rates by 1.97%.

The following charts specify the recommended employer contributions and components thereof (expressed as a level percentage of payroll) for this valuation. A breakdown between normal cost and UAAL and by basic and cost-of-living benefits is provided.

## NORMAL COST AND UAAL RATE BREAKDOWN

EXHIBIT 5.1 – CURRENT EMPLOYER NORMAL COST AND UAAL RATES BREAKDOWN As of June 30, 2005

	TOTAL EMPLOYER CONTRIBUTION RATES – CURRENT BREAKDOWN BETWEEN NORMAL COST AND UAAL												
	COUNTY/FORMER COUNTY OTHER AGENCIES & DISTRICTS												
	G	GENERAL SAFETY GENERAL SAFETY											
	Tier 3	Tier 4	Tier 5	Tier 4	Tier 5	Tier 1	Tier 2	Tier 4	Tier 5	Tier 1	Tier 2	Tier 4*	Tier 5*
Normal Cost %	2.89	6.14	6.52	17.99	15.99	8.94	4.95	6.14	6.52	17.99	15.99	2.89	6.14
UAAL %	2.58	2.58	2.58	4.53	4.53	4.47	4.47	4.47	4.47	6.35	6.35	2.58	2.58
Total %	5.47	8.72	9.10	22.52	20.52	13.41	9.42	10.61	10.99	24.34	22.34	5.47	8.72

<sup>\*</sup> For informational purposes, as Tier 4 and Tier 5 benefits have not yet been implemented.

Average Rate for Total Group: Normal Cost 8.18%

UAAL 3.01 Total 11.19%

EXHIBIT 5.2 – RECOMMENDED EMPLOYER NORMAL COST AND UAAL RATES BREAKDOWN As of June 30, 2006

	TOTAL EMPLOYER CONTRIBUTION RATES – RECOMMENDED BREAKDOWN BETWEEN NORMAL COST AND UAAL											
	С	OUNTY/F	ORMER	COUNT	<b>′</b>		OTHE	R AGENC	IES & DIS	TRICTS		
	G	ENERAL	-	SAF	ETY	GEN	IERAL		SAI	FETY		
	Tier 3	Tier 4	Tier 5	Tier 4	Tier 5	Tier 1	Tier 2	Tier 4	Tier 5	Tier 4	Tier 5	
Normal Cost %	2.55	6.13	5.81	17.02	14.93	8.93	4.41	6.13	5.81	17.02	14.93	
UAAL %	1.39	1.39	1.39	2.39	2.39	4.61	4.61	4.61	4.61	6.61	6.61	
Total %	3.94	7.52	7.20	19.41	17.32	13.54	9.02	10.74	10.42	23.63	21.54	

Average Rate for Total Group: Normal Cost 7.47%

UAAL 1.75 Total 9.22%

EXHIBIT 5.3 – RECOMMENDED EMPLOYER BASIC AND COST OF LIVING RATES BREAKDOWN As of June 30, 2006

	TOTAL EMPLOYER CONTRIBUTION RATES – RECOMMENDED BREAKDOWN BETWEEN BASIC AND COST-OF-LIVING											
	COUNTY/FORMER COUNTY OTHER AGENCIES & DISTRICTS											
	G	ENERAL	-	SAF	ETY		GEN	IERAL		SAI	ETY	
	Tier 3	Tier 4	Tier 5	Tier 4	Tier 5	Tier 1	Tier 2	Tier 4	Tier 5	Tier 4	Tier 5	
Basic %	3.51	5.70	5.49	14.13	13.11	9.86	6.68	7.67	7.46	16.50	15.48	
COL %	0.43	1.82	1.71	5.28	4.21	3.68	2.34	3.07	2.96	7.13	6.06	
Total %	3.94	7.52	7.20	19.41	17.32	13.54	9.02	10.74	10.42	23.63	21.54	

EXHIBIT 5.4 – RECOMMENDED EMPLOYER NORMAL COST AND UAAL ANNUAL AMOUNT

BRE	AKDOWI	N BETWE	EN NORM	IAL COS	T AND U	AAL – RE	СОММЕ	NDED AN	NUAL AM	OUNT	
(dollar amounts in thousands, based on June 30, 2006 payroll)											
	COUNTY/FORMER COUNTY OTHER AGENCIES & DISTRICTS										
		GENERAL SAFETY GENERAL SAFETY								ETY	
	Tier 3	Tier 4	Tier 5	Tier 4	Tier 5	Tier 1	Tier 2	Tier 4	Tier 5	Tier 4	Tier 5
Normal Cost	52	919	9,090	159	5,209	4	7	33	320	31	597
UAAL	29	208	2,175	22	834	2	8	25	254	12	264
Total	81	1,127	11,265	181	6,043	6	15	58	574	43	861

Total Annual Amount: County/Former County \$18,697

Ceres/ Other Districts 1,557

Combined \$20,254

## Recommendations

We recommend that the current inflation rate assumption be decreased from 4.50% to 4.00% and the current investment return assumption remain at 8.16%.

We recommend that the Board adopt the member and employer contribution rates as of June 30, 2006 as shown in the prior sections. These rates, which reflect the current economic assumptions, are based on the Entry Age Normal Cost Method and the actuarial value of assets, with an unfunded Actuarial Accrued Liability amortized over 20 years from June 30, 2006 in fixed dollar amounts.

This combination of assumptions and methods reflects our best judgment of future long-term experience for the Association.

## **Actuary's Certification Letter**

January 15, 2007

Board of Retirement Stanislaus County Employees' Retirement Association 1010 10<sup>th</sup> Street, Suite 5800 Modesto, CA 95353

Re: Actuarial Certification of the Stanislaus County Employees' Retirement Association

Members of the Board:

Buck Consultants, LLC is the Consulting Actuary for the Stanislaus County Employees' Retirement Association. The date of the most recent annual actuarial valuation was June 30, 2006. This valuation is performed annually.

Actuarial funding is based on the Entry Age Normal Cost Method. Under this method, the employer contribution rate provides for current cost (normal cost) plus a level percentage of payrolls to amortize the unfunded actuarial accrued liability (UAAL). As of June 30, 2006, the amortization is 20 years. The funding objective of the Plan is to establish contribution rates that, over time, will remain as a level percentage of payrolls unless Plan benefit provisions are changed.

For actuarial valuation purposes, Plan assets are valued at Actuarial Value. Under this method, the assets used to determine employer contribution rates take into account market value by spreading all gains and losses (returns above or below expected returns) over five years. In each actuarial study, we conduct an examination of all participant data for reasonableness. The actuarial valuation is based on audited financial data and unaudited member data provided by the Retirement Plan Administrator. The Association's financial statements are audited by an outside auditor.

Our firm has prepared all of the schedules presented in the actuarial report. The actuarial assumptions shown in the schedules were selected by us as being appropriate for use under the Plan. An analysis of the Plan's noneconomic experience was performed as of June 30, 2006 to establish the validity of these assumptions. The assumptions used in the most recent valuation produce results that, in the aggregate, reasonably approximate the anticipated future experience of the Plan. The next experience analysis is due to be performed as of June 30, 2009.

We certify that the valuation was performed in accordance with generally accepted actuarial principles and practices. In particular, the assumptions and methods used for funding purposes meet the parameters of the Governmental Accounting Standards Board Statement No. 25.

Respectfully submitted,

Harold A. Loeb, A.S.A., E.A., M.A.A.A. Principal and Consulting Actuary

**GASB and CAFR Information** 

This section focuses on the required GASB disclosures and

the required CAFR information.

GASB 25 Schedule of Funding Progress

GASB 25 established reporting and disclosures for defined benefit pension plans. The required Schedule of Funding Progress shows a historical comparison of the Association's assets and liabilities, using the same actuarial method used for funding the Association.

GASB 25 Schedule of Employer Contributions

The required Schedule of Employer Contributions compares the actual employer contributions to the "Annual Required Contributions" (ARC). The ARC is the employer contribution determined under GASB 25 standards (normal cost and amortization of unfunded actuarial accrued liabilities) using the actuarial funding method used for funding the Association.

Actuarial Analysis of Financial Experience

The annual CAFR requires the disclosure of historical sources of actuarial gains and losses.

**Retiree and Beneficiary Experience** 

The annual CAFR requires the disclosure of historical summary data for retired members.

**Solvency Test** 

The annual CAFR requires the disclosure of a "Solvency Test." This test compares actuarial assets to actuarial accrued liabilities, applying assets to active member contributions first, then to inactive and retired members and then to the remaining active member liabilities.

 $\begin{array}{c} \textbf{EXHIBIT 7.1} - \textbf{GASB 25 SCHEDULE OF FUNDING PROGRESS} \\ \textbf{(In Thousands)} \end{array}$ 

Actuarial Valuation Date	Actuarial Value of Assets*	Actuarial Accrued Liability (AAL)*	Unfunded AAL (UAAL)	Funded Ratio	Covered Payroll	UAAL as a Percent of Covered Payroll
7/1/90	\$ 225,147	\$ 302,742	\$ 77,595	74.4%	\$ 81,043	95.7%
7/1/91	252,179	338,851	86,672	74.4	92,579	93.6
7/1/92	280,503	386,112	105,609	72.6	104,335	101.2
7/1/93	313,924	418,186	104,262	75.1	104,949	99.3
7/1/94	340,570	450,989	110,419	75.5	107,711	102.5
7/1/95	483,151	502,252	19,101	96.2	113,124	16.9
7/1/96	N/A	N/A	N/A	N/A	N/A	N/A
7/1/97	667,248	512,349	(154,899)	130.2	121,275	(127.7)
7/1/98	590,598	558,462	(32,136)	105.8	120,172	(26.7)
7/1/99	638,180	610,280	(27,900)	104.6	141,799	(19.7)
7/1/00	679,421	666,114	(13,307)	102.0	157,010	(8.5)
7/1/01	784,114	781,495	(2,619)	100.3	174,595	(1.5)
7/1/02	878,821	870,768	(8,053)	100.9	196,471	(4.1)
7/1/03	937,797	958,095	20,298	97.9	197,664	10.3
7/1/04	993,180	1,035,345	42,165	95.9	199,963	21.1
7/1/05	1,049,691	1,116,310	66,619	94.0	211,681	31.5
7/1/06	1,154,048	1,194,904	40,856	96.6	219,768	18.6

<sup>\*</sup>Excludes "Other Designated Reserves" and the liabilities associated with these reserves.

EXHIBIT 7.2 – GASB 25 SCHEDULE OF EMPLOYER CONTRIBUTIONS (IN THOUSANDS)

Year Ended	Annual Required Contribution	Percentage Contributed
6/30/90	\$ 10,134	100%
6/30/91	11,487	100%
6/30/92	13,553	100%
6/30/93	11,991	100%
6/30/94	12,775	100%
6/30/95	8,505	100%
6/30/96	8,809	100%
6/30/97	6,864	100%
6/30/98	7,438	100%
6/30/99	5,338	100%
6/30/00	5,899	100%
6/30/01	7,509	100%
6/30/02	11,341	100%
6/30/03	16,208	100%
6/30/04	17,114	100%
6/30/05	19,793	100%
6/30/06	24,422	100%

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EXHIBIT 7.3 - ACTUARIAL ANALYSIS OF FINANCIAL EXPERIENCE

	Act	uarial (Gains)/Lo	sses			
Plan Year Ending	Asset Sources	Liability Sources	Total	Changes in Plan Provisions	Changes in Assumptions/ Methods	Total (Gain)/Loss
6/30/2003	\$33,037,561	\$9,931,697	\$42,969,258	N/A	\$(2,088,246)	\$40,881,012
6/30/2004	8,536,049	12,492,070	21,028,119	N/A	0	21,028,119
6/30/2005	26,573,640	11,238,430	37,812,070	N/A	0	37,812,070
6/30/2006	(27,756,878)	21,366,204	(6,390,674)	N/A	(14,845,293)	(21,235,967)

EXHIBIT 7.4 - RETIREE AND BENEFICIARY EXPERIENCE

Plan Year Ending	At Beginning of Year	At End of Year	Retiree Payroll	% Increase in Retiree Payroll	Average Annual Allowances
6/30/1999	1,655	1,723	\$24,752,000	9.7%	\$14,366
6/30/2000	1,723	1,780	26,963,000	8.9%	15,148
6/30/2001	1,780	1,839	29,438,000	9.2%	16,008
6/30/2002	1,839	1,940	33,240,000	12.9%	17,134
6/30/2003	1,940	2,054	38,348,000	15.4%	18,670
6/30/2004	2,054	2,166	43,467,000	13.3%	20,064
6/30/2005	2,166	2,293	47,423,000	9.1%	20,682
6/30/2006	2,293	2,443	53,111,000	12.0%	21,744

# **EXHIBIT 7.5 - SOLVENCY TEST**

	Actuarial	Accrued Liabil	ities For		Portion of Accrued Liabilities Covered by Valuation Assets			
Valuation Date	(1) Active Member Contributions	(2) Retirees and Beneficiaries	(3) Active Members	Actuarial Accrued Liabilities	Valuation Assets	(1)	(2)	(3)
6/30/2003	\$176,622,000	\$455,784,000	\$325,689,000	\$958,095,000	\$928,022,000	100%	100%	91%
6/30/2004	\$166,806,000	\$518,922,000	\$349,617,000	\$1,035,345,000	\$993,180,000	100%	100%	88%
6/30/2005	\$205,556,000	\$551,810,000	\$358,944,000	\$1,116,310,000	\$1,049,691,000	100%	100%	81%
6/30/2006	\$219,907,000	\$619,109,000	\$355,888,000	\$1,194,904,000	\$1,154,048,000	100%	100%	89%

#### **Actuarial Assumptions**

This section focuses on the actuarial assumptions used to perform the valuation.

To perform an actuarial valuation of the assets and liabilities of the Association, the actuary must first adopt assumptions with respect to each of the following items:

## Noneconomic assumptions

- The probabilities of members separating from active service on account of nonvested and vested withdrawal, retirement for service, death and disability, and
- The mortality rates to be experienced among retired persons.

## Economic assumptions

- Interest earnings to be realized on the funds over many years in the future, and
- The relative increases in a member's salary from the date of the valuation to the date of separation from active service.

# **Noneconomic Assumptions**

# Rates of Separation from Active Service

In connection with the June 30, 2006 actuarial valuation, we compared the expected number of terminations from active service to the number actually experienced during the three-year period beginning July 1, 2003 and ending June 30, 2006. Based on this comparison and the trends observed over the prior years, the probabilities of separation were adjusted accordingly.

A complete list of the current rates of separation from active service can be found in Exhibits 8.1-8.3. These rates should be viewed in the aggregate rather than examining each of them separately. This is due to the interdependency of the rates. For example, if turnover were to increase, there would be fewer retirements.

# **Economic Assumptions**

#### **Inflation**

In setting the economic assumptions, we take a building block approach. Specifically, we first look at the rate of inflation, which underlies both the total rate of return and the salary scale assumptions. To aid us in determining an appropriate inflation rate for the Association, we have reviewed long-term historical inflation averages, recent trends, and the assumptions adopted by other public retirement systems governed by the 1937 Act. It should be noted that we have placed more emphasis on long-term historical averages and long-term future predictions than on the more recent, short-term trends. This helps to minimize fluctuations, which are more apparent in short term trends.

The rate of inflation is an important assumption used in valuing the Association's liabilities. This assumption underlies both the investment return assumption and the salary increase assumption. These in turn directly impact the employer and employee contribution rates.

If the pattern of inflation during the last 90-year period is analyzed, it may be extrapolated that the current low rates will not continue into the future indefinitely.

Because of the cyclical nature of inflation and the long-term nature of the Association's liabilities, we believe that it is appropriate to assume that the average inflation rate to be experienced over the next 30 to 50 years (which is approximately the lifetime of the Association's present obligations) will be between 4.00% and 4.50%.

Based on the information presented in the economic assumption section, we recommend that the current inflation rate assumption be reduced to 4.00%.

# **Economic Assumptions Real Rate of Return**

Secondly, we review the anticipated real rate of return on investments. The real rate of return is dependent on the anticipated returns on classes of investments and the asset allocation of the Association's funds. To develop the individual real rates of return, we utilize various empirical studies. By applying the results of these studies to the Association's target asset allocation, we develop the real rate of return. This rate may then be adjusted for any known or anticipated changes in the economy that may occur. Using this building block approach, we then combine the underlying inflation assumption with the real rate of return to develop the total rate of return assumption (interest rate assumption).

The first step in developing a real rate of return is to analyze how the Association's assets are allocated among the various investment classes. Based on this information, we can then apply the anticipated rate of return to the respective classes and develop an overall estimated real rate of return. The Association's target and actual asset allocations are shown in the table below.

There have been numerous studies performed which analyze the expected long-term real rates of return for use in asset allocation models. Roger Ibbotson and Rex A. Sinquefield produced one of these studies for the period 1926-2004 called *Stocks*, *Bonds and Inflation: Simulations of the Future*. The results of this study are presented below.

ASSET	ALLO AS OF JU	SET CATION NE 30, 2006 IT VALUE)	IBBOTSON- SINQUEFIELD REAL RATES OF RETURN	TARGET WEIGHTED	
CLASS	TARGET	ACTUAL	(1926 - 2005)	RETURN	
Equity*	63.6%	64.20%	7.1%	4.52%	
Income/Bonds	36.4%	33.95%	2.6%	0.95%	
Real Estate	0%	0.00%	4.0%	0.00%	
Short Term	<u>0%</u>	1.86%	0.7%	0.00%	
Total	100%	100%		5.47%	
*Includes Internat	ional Equity				

#### **Economic Assumptions**

## **Real Rate of Return (continued)**

Applying the Association's target asset allocation to the real rates of return in the table produces a real rate of return of approximately 5.47% (assuming an equal proportion of government and corporate bonds). This rate, however, should be adjusted to reflect administrative expenses and potential adverse future experience.

After making this adjustment, we believe that a real rate of return should be increased to 4.00%. When used with a 4.00% inflation rate, this provides a reasonable degree of conservatism. Thus, we feel that the 8.16% investment return assumption (8.00% compounded semiannually) should be continued.

### **Salary Scale**

The salary scale assumption is developed in a similar manner. The inflation rate is combined with merit and longevity increases to produce a total salary scale assumption.

## Merit and Longevity Increases

The merit and longevity component of the total salary scale assumption reflects increases in members' salaries due to promotion, advances in pay grades, etc. These increases are dependent on an individual's membership and are graded downward as member age.

The overall effect of the merit and longevity increases is to add approximately 1.00% to the total salary scale assumption. When combined with the inflation assumption, the average salary increase factor decreases from 5.50% to 5.00%.

# Section 8: Summary of Actuarial Assumptions

The Entry Age Normal Cost Method was used in conjunction with the following actuarial assumptions. The UAAL is being amortized over 20 years from June 30, 2006 in fixed dollar amounts.

1. Interest: 8.16% per annum.

2. Interest Credited to Employee Accounts: 0.25% per annum for year starting July 1, 2006.

3. Inflation: 4.00% per annum.

4. Asset Valuation: Smoothed actuarial value.

5. Salary Scale: See Exhibit 8.7

6. Spouses and Dependents: 90% of male employees and 50% of female

employees assumed married at retirement, with wives assumed three years younger than

husbands.

7. Rates of Termination of Employment: See Exhibits 8.1 - 8.3

8. Years of Life Expectancy After Retirement (Exhibit 8.4):

• General 1994 Group Annuity Mortality Table for Males, with no adjustment

• General 1994 Group Annuity Mortality Table for Females, with no adjustment

• Safety 1994 Group Annuity Mortality Table for Males, with no adjustment

9. Years of Life Expectancy After Disability Retirement (Exhibits 8.5 – 8.6):

- General 1981 Disability Mortality Table for General Members, with no setback
- Safety 1981 Disability Mortality Table for Safety Members, with no setback

- 10. Life Expectancy After Retirement for Employee Contribution Rate Purposes:
- General Members 1994 Group Annuity Table for Males, set back three years.
- Safety Members 1994 Group Annuity Table for Males, with no setback.

11. Reciprocity Assumption:

50% of members who terminate with a vested benefit are assumed to enter a reciprocal system.

12. Deferral Age for Vested Terminations:

62 for General Tier 1/4 and Tier 2/5 members; 65 for General Tier 3 members; 55 for Safety members.

13. Sex:

All Safety members are assumed to be male.

EXHIBIT 8.1 – PROBABILITIES OF SEPARATION FROM ACTIVE SERVICE
GENERAL MEMBERS – MALES
RECOMMENDED ASSUMPTIONS

Age	Duty Death	Ordinary Death	Death While Eligible	Duty Disability	Ordinary Disability	Service	Terminated Vested	Withdraw
20	0.000000	0.000300	0.000000	0.000065	0.000130	0.000000	0.000000	0.143016
21	0.000000	0.000300	0.000000	0.000082	0.000164	0.000000	0.004180	0.136884
22	0.000000	0.000300	0.000000	0.000099	0.000197	0.000000	0.008030	0.130776
23	0.000000	0.000300	0.000000	0.000114	0.000229	0.000000	0.011440	0.124644
24	0.000000	0.000300	0.000000	0.000130	0.000259	0.000000	0.014520	0.122400
25	0.000000	0.000300	0.000100	0.000153	0.000307	0.000000	0.017380	0.119520
26	0.000000	0.000300	0.000100	0.000167	0.000335	0.000000	0.019910	0.116064
27	0.000000	0.000400	0.000100	0.000181	0.000361	0.000000	0.022550	0.112320
28	0.000000	0.000400	0.000100	0.000203	0.000406	0.000000	0.024860	0.108576
29	0.000000	0.000400	0.000100	0.000225	0.000449	0.000000	0.026950	0.104736
30	0.000000	0.000400	0.000100	0.000316	0.000316	0.000000	0.028930	0.104100
31	0.000000	0.000400	0.000100	0.000331	0.000332	0.000000	0.030580	0.101712
32	0.000000	0.000400	0.000100	0.000346	0.000347	0.000000	0.031680	0.098016
33	0.000000	0.000400	0.000100	0.000373	0.000374	0.000000	0.032230	0.092112
34	0.000000	0.000500	0.000100	0.000400	0.000400	0.000000	0.032560	0.088728
35	0.000000	0.000500	0.000200	0.000426	0.000426	0.000000	0.032450	0.083808
36	0.000000	0.000500	0.000200	0.000452	0.000452	0.000000	0.032010	0.078624
37	0.000000	0.000500	0.000200	0.000490	0.000490	0.000000	0.031900	0.073656
38	0.000000	0.000600	0.000200	0.000515	0.000515	0.000000	0.031680	0.069228
39	0.000000	0.000600	0.000200	0.000565	0.000565	0.000000	0.031350	0.066600
40	0.000000	0.000600	0.000300	0.000602	0.000602	0.000000	0.030800	0.064680
41	0.000000	0.000700	0.000300	0.000651	0.000651	0.000000	0.029920	0.062160
42	0.000000	0.000700	0.000300	0.000712	0.000713	0.000000	0.028820	0.057240
43	0.000000	0.000800	0.000400	0.000774	0.000773	0.000000	0.027610	0.052320
44	0.000000	0.000900	0.000400	0.000847	0.000847	0.000000	0.025960	0.047280
45	0.000000	0.000900	0.000500	0.000920	0.000920	0.000000	0.024200	0.042240
46	0.000000	0.000900	0.000500	0.001005	0.001005	0.000000	0.022220	0.037320
47	0.000000	0.001000	0.000600	0.001091	0.001091	0.000000	0.020020	0.032280
48	0.000000	0.001000	0.000700	0.001176	0.001175	0.000000	0.018810	0.029280
49	0.000000	0.001000	0.000900	0.001260	0.001260	0.000000	0.017600	0.026400
50	0.000000	0.001000	0.001100	0.001345	0.001345	0.040000	0.016170	0.023520
51	0.000000	0.001000	0.001200	0.001442	0.001442	0.015000	0.015070	0.021240
52	0.000000	0.001000	0.001400	0.001538	0.001538	0.020000	0.013860	0.018960
53	0.000000	0.001100	0.001600	0.001635	0.001635	0.030000	0.012650	0.016680
54	0.000000	0.001100	0.001800	0.001731	0.001731	0.035000	0.011770	0.015120
55	0.000000	0.001200	0.002000	0.001840	0.001840	0.075000	0.010890	0.013560
56	0.000000	0.001300	0.002200	0.001973	0.001973	0.085000	0.009790	0.011880
57	0.000000	0.001400	0.002400	0.002094	0.002094	0.090000	0.008140	0.009600
58	0.000000	0.001500	0.002600	0.002215	0.002215	0.095000	0.006930	0.007920
59	0.000000	0.001600	0.002800	0.002336	0.002336	0.100000	0.006490	0.007200
60	0.000000	0.001700	0.003100	0.002456	0.002456	0.120000	0.006600	0.007200
61	0.000000	0.001800	0.003300	0.002568	0.002569	0.150000	0.006600	0.007200
62	0.000000	0.001900	0.003600	0.002694	0.002693	0.300000	0.006600	0.007200
63	0.000000	0.001900	0.003900	0.002819	0.002819	0.200000	0.006600	0.007200
64	0.000000	0.002000	0.004200	0.002956	0.002956	0.300000	0.006600	0.007200
65	0.000000	0.002200	0.004500	0.000000	0.000000	0.500000	0.000000	0.000000
66	0.000000	0.002400	0.004900	0.000000	0.000000	0.400000	0.000000	0.000000
67	0.000000	0.002600	0.005300	0.000000	0.000000	0.500000	0.000000	0.000000
68	0.000000	0.002800	0.005700	0.000000	0.000000	0.500000	0.000000	0.000000
69	0.000000	0.003100	0.006100	0.000000	0.000000	0.600000	0.000000	0.000000
70	0.000000	0.000000	0.000000	0.000000	0.000000	0.999999	0.000000	0.000000

EXHIBIT 8.2 – PROBABILITIES OF SEPARATION FROM ACTIVE SERVICE
GENERAL MEMBERS - FEMALES
RECOMMENDED ASSUMPTIONS

Age	Duty Death	Ordinary Death	Death While Eligible	Duty Disability	Ordinary Disability	Service	Terminated Vested	Withdraw
20	.000000	.000200	.000000	.000013	.000025	.000000	.000000	.142344
21	.000000	.000200	.000000	.000013	.000025	.000000	.003416	.132048
22	.000000	.000200	.000000	.000013	.000025	.000000	.006306	.122184
23	.000000	.000200	.000000	.000013	.000025	.000000	.008692	.112680
24	.000000	.000200	.000000	.000013	.000025	.000000	.010920	.105624
25	.000000	.000300	.000075	.000025	.000050	.000000	.012989	.101016
26	.000000	.000300	.000075	.000025	.000050	.000000	.014929	.096624
27	.000000	.000300	.000075	.000025	.000050	.000000	.016711	.092448
28	.000000	.000300	.000075	.000038	.000075	.000000	.017820	.088947
29	.000000	.000300	.000075	.000050	.000100	.000000	.018642	.087471
30	.000000	.000300	.000075	.000050	.000100	.000000	.019751	.086022
31	.000000	.000400	.000075	.000050	.000100	.000000	.020642	.081972
32	.000000	.000400	.000075	.000063	.000125	.000000	.021453	.078084
33	.000000	.000400	.000075	.000072	.000123	.000000	.022127	.074196
34	.000000	.000400	.000075	.000072	.000142	.000000	.022641	.070470
35	.000000	.000500	.000075	.000141	.000187	.000000	.022938	.066825
36	.000000	.000500	.000075	.000141	.000201	.000000	.021060	.063261
37	.000000	.000500	.000075	.000102	.000323	.000000	.021000	.059778
38	.000000	.000500	.000075	.000175	.000370	.000000	.021173	.055890
39	.000000	.000300	.000075	.000213	.000430	.000000	.020583	.052083
40	.000000	.000600	.000150	.000200	.000319	.000000	.020563	.052063
40	.000000	.000600	.000150	.000333	.000446	.000000	.020320	.030010
41	.000000	.000600	.000150	.000387		.000000	.020322	.049077
					.000565			
43	.000000	.000700	.000150	.000475	.000633	.000000	.020115	.044370
44	.000000	.000700	.000150	.000541	.000721	.000000	.019710	.041634
45	.000000	.000700	.000225	.000606	.000808	.000000	.019170	.038907
46	.000000	.008000	.000225	.000671	.000894	.000000	.018837	.036675
47	.000000	.008000	.000300	.000735	.000980	.000000	.018432	.034542
48	.000000	.008000	.000375	.000814	.001086	.000000	.018225	.032922
49	.000000	.008000	.000450	.000893	.001190	.000000	.017883	.032112
50	.000000	.008000	.000600	.000971	.001295	.047500	.023490	.031320
51	.000000	.008000	.000750	.001064	.001418	.028500	.023040	.029700
52	.000000	.008000	.000900	.001157	.001542	.028500	.022500	.028080
53	.000000	.008000	.001050	.001249	.001665	.028500	.021870	.026550
54	.000000	.000900	.001125	.001371	.001827	.042750	.021240	.025020
55	.000000	.000900	.001275	.001492	.001990	.047500	.020520	.023490
56	.000000	.000900	.001425	.001614	.002151	.047500	.019800	.021960
57	.000000	.001000	.001575	.001735	.002312	.057000	.018900	.020430
58	.000000	.001000	.001725	.001855	.002474	.066500	.018000	.018990
59	.000000	.001000	.001875	.001976	.002634	.085500	.017640	.018090
60	.000000	.001100	.002100	.002096	.002794	.095000	.017190	.017190
61	.000000	.001200	.002325	.002201	.002934	.161500	.008100	.008100
62	.000000	.001300	.002625	.002306	.003074	.332500	.008100	.008100
63	.000000	.001400	.002850	.002411	.003214	.237500	.008100	.008100
64	.000000	.001500	.003075	.002516	.003354	.237500	.008100	.008100
65	.000000	.001700	.003225	.000000	.000000	.380000	.000000	.000000
66	.000000	.001900	.003525	.000000	.000000	.285000	.000000	.000000
67	.000000	.002100	.003750	.000000	.000000	.332500	.000000	.000000
68	.000000	.002300	.003975	.000000	.000000	.380000	.000000	.000000
69	.000000	.002500	.004200	.000000	.000000	.475000	.000000	.000000
70	.000000	.000000	.000000	.000000	.000000	1.000000	.000000	.000000

EXHIBIT 8.3 – PROBABILITIES OF SEPARATION FROM ACTIVE SERVICE SAFETY MEMBERS
RECOMMENDED ASSUMPTIONS

Age	Duty Death	Ordinary Death	Death While Eligible	Duty Disability	Ordinary Disability	Service	Terminated Vested	Withdraw
20	0.000150	0.000151	0.000000	0.001012	0.000173	0.000000	0.000000	0.094900
21	0.000156	0.000157	0.000000	0.001322	0.000219	0.000000	0.004356	0.088400
22	0.000164	0.000164	0.000000	0.001620	0.000263	0.000000	0.008118	0.082500
23	0.000171	0.000172	0.000000	0.001907	0.000305	0.000000	0.011484	0.077300
24	0.000180	0.000181	0.000000	0.002184	0.000345	0.000000	0.014454	0.072500
25	0.000189	0.000190	0.000130	0.002576	0.000409	0.000000	0.018414	0.074700
26	0.000200	0.000201	0.000130	0.002886	0.000446	0.000000	0.021186	0.071300
27	0.000211	0.000212	0.000130	0.003238	0.000481	0.000000	0.023562	0.068100
28	0.000224	0.000225	0.000130	0.003556	0.000541	0.000000	0.025542	0.064600
29	0.000238	0.000239	0.000130	0.003918	0.000599	0.000000	0.027126	0.060700
30	0.000254	0.000254	0.000130	0.004609	0.000421	0.000000	0.027918	0.056300
31	0.000271	0.000271	0.000130	0.005094	0.000442	0.000000	0.028116	0.051500
32	0.000290	0.000290	0.000130	0.005573	0.000462	0.000000	0.027126	0.045600
33	0.000317	0.000318	0.000130	0.006030	0.000498	0.000000	0.025542	0.039800
34	0.000335	0.000335	0.000130	0.006582	0.000533	0.000000	0.023760	0.034200
35	0.000357	0.000357	0.000130	0.007079	0.000568	0.000000	0.022176	0.029800
36	0.000384	0.000384	0.000130	0.007571	0.000603	0.000000	0.020592	0.026100
37	0.000417	0.000417	0.000130	0.008043	0.000653	0.000000	0.019800	0.023600
38	0.000457	0.000458	0.000130	0.008476	0.000687	0.000000	0.018810	0.021200
39	0.000506	0.000506	0.000130	0.008873	0.000753	0.000000	0.017820	0.018900
40	0.000564	0.000564	0.000260	0.009283	0.000802	0.000000	0.016434	0.016600
41	0.000577	0.000690	0.000260	0.009672	0.000868	0.000000	0.014850	0.014300
42	0.000612	0.000816	0.000260	0.010041	0.000950	0.000000	0.013266	0.012100
43	0.000691	0.000922	0.000390	0.010408	0.001031	0.000000	0.011286	0.009900
44	0.000783	0.001043	0.000390	0.010804	0.001129	0.000000	0.009306	0.007800
45	0.000885	0.001178	0.000520	0.011297	0.001227	0.005000	0.007722	0.006200
46	0.000994	0.001325	0.000650	0.011872	0.001340	0.007500	0.006138	0.004700
47	0.001113	0.001483	0.000780	0.012543	0.001454	0.011250	0.004356	0.003200
48	0.001238	0.001651	0.000910	0.013362	0.001567	0.016880	0.003366	0.002400
49	0.001369	0.001826	0.001170	0.014228	0.001680	0.025310	0.002970	0.002100
50	0.000703	0.000937	0.001300	0.015092	0.001793	0.090000	0.002772	0.001900
51	0.000769	0.001025	0.001560	0.015837	0.001922	0.060000	0.002574	0.001700
52	0.000836	0.001115	0.001820	0.016580	0.002051	0.060000	0.002376	0.001500
53	0.000906	0.001208	0.002080	0.017271	0.002180	0.075000	0.002178	0.001300
54	0.000978	0.001304	0.002340	0.018060	0.002308	0.225000	0.001782	0.001100
55	0.001055	0.001406	0.002990	0.017230	0.002453	0.333300	0.001782	0.001000
56	0.001141	0.001521	0.003380	0.018165	0.002631	0.160000	0.001386	0.000800
57	0.001239	0.001652	0.003770	0.019365	0.002792	0.250000	0.001188	0.000700
58	0.001354	0.001805	0.003900	0.020563	0.002953	0.300000	0.000990	0.000500
59	0.001487	0.001983	0.004550	0.021759	0.003114	0.350000	0.000792	0.000400
60	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000

EXHIBIT 8.4 – YEARS OF LIFE EXPECTANCY AFTER SERVICE RETIREMENT

Age	General Male	General Female	Safety	Age	General Male	General Female	Safety
50	30.69	34.89	30.69	81	7.89	9.71	7.89
51	29.77	33.94	29.77	82	7.44	9.14	7.44
52	28.85	32.99	28.85	83	7.00	8.58	7.00
53	27.95	32.05	27.95	84	6.59	8.05	6.59
54	27.04	31.11	27.04	85	6.19	7.54	6.19
55	26.15	30.17	26.15	86	5.80	7.06	5.80
56	25.27	29.24	25.27	87	5.43	6.59	5.43
57	24.39	28.31	24.39	88	5.07	6.15	5.07
58	23.52	27.40	23.52	89	4.73	5.73	4.73
59	22.67	26.49	22.67	90	4.42	5.34	4.42
60	21.83	25.59	21.83	91	4.13	4.98	4.13
61	21.00	24.70	21.00	92	3.86	4.64	3.86
62	20.18	23.82	20.18	93	3.61	4.33	3.61
63	19.39	22.96	19.39	94	3.37	4.04	3.37
64	18.60	22.11	18.60	95	3.16	3.76	3.16
65	17.84	21.28	17.84	96	2.98	3.51	2.98
66	17.10	20.46	17.10	97	2.81	3.28	2.81
67	16.37	19.65	16.37	98	2.66	3.06	2.66
68	15.66	18.86	15.66	99	2.52	2.86	2.52
69	14.97	18.08	14.97	100	2.39	2.67	2.39
70	14.29	17.31	14.29	101	2.26	2.50	2.26
71	13.63	16.54	13.63	102	2.15	2.34	2.15
72	12.98	15.78	12.98	103	2.04	2.19	2.04
73	12.34	15.04	12.34	104	1.93	2.06	1.93
74	11.72	14.31	11.72	105	1.84	1.94	1.84
75	11.12	13.60	11.12	106	1.75	1.83	1.75
76	10.53	12.90	10.53	107	1.68	1.74	1.68
77	9.96	12.22	9.96	108	1.62	1.66	1.62
78	9.40	11.57	9.40	109	1.57	1.59	1.57
79	8.88	10.93	8.88	110	1.52	1.54	1.52
80	8.37	10.31	8.37				

1994 GA (x, y) for General Members 1994 GA (x) for Safety Members

EXHIBIT 8.5 – YEARS OF LIFE EXPECTANCY AFTER DISABILITY RETIREMENT GENERAL MEMBERS

Age	Years of Life Expectancy	Age	Years of Life Expectancy	Age	Years of Life Expectancy
20	38.73	51	20.59	81	6.63
21	37.98	52	20.11	82	6.27
22	37.26	53	19.63	83	5.94
23	36.56	54	19.16	84	5.63
24	35.87	55	18.68	85	5.34
25	35.19	56	18.22	86	5.06
26	34.53	57	17.75	87	4.80
27	33.87	58	17.29	88	4.55
28	33.23	59	16.83	89	4.31
29	32.60	60	16.37	90	4.09
30	31.98	61	15.91	91	3.87
31	31.37	62	15.45	92	3.66
32	30.76	63	14.99	93	3.46
33	30.17	64	14.53	94	3.26
34	29.58	65	14.07	95	3.07
35	29.00	66	13.60	96	2.89
36	28.43	67	13.13	97	2.71
37	27.87	68	12.66	98	2.54
38	27.31	69	12.18	99	2.37
39	26.76	70	11.70	100	2.20
40	26.21	71	11.21	101	2.04
41	25.67	72	10.72	102	1.88
42	25.14	73	10.22	103	1.72
43	24.61	74	9.73	104	1.55
44	24.09	75	9.24	105	1.38
45	23.57	76	8.76	106	1.21
46	23.06	77	8.28	107	1.04
47	22.56	78	7.83	108	.88
48	22.06	79	7.41	109	.72
49	21.57	80	7.00	110	.50
50	21.08				

1981 Disability (General)

EXHIBIT 8.6 – YEARS OF LIFE EXPECTANCY AFTER DISABILITY RETIREMENT SAFETY MEMBERS

Age	Years of Life Expectancy	Age	Years of Life Expectancy	Age	Years of Life Expectancy
20	49.29	51	22.80	81	6.63
21	48.39	52	22.03	82	6.27
22	47.48	53	21.26	83	5.94
23	46.58	54	20.50	84	5.63
24	45.68	55	19.77	85	5.34
25	44.79	56	19.06	86	5.06
26	43.89	57	18.40	87	4.80
27	43.01	58	17.78	88	4.55
28	42.12	59	17.20	89	4.31
29	41.24	60	16.64	90	4.09
30	40.36	61	16.11	91	3.87
31	39.48	62	15.59	92	3.66
32	38.61	63	15.08	93	3.46
33	37.74	64	14.58	94	3.26
34	36.88	65	14.09	95	3.07
35	36.02	66	13.61	96	2.89
36	35.16	67	13.13	97	2.71
37	34.31	68	12.66	98	2.54
38	33.46	69	12.18	99	2.37
39	32.61	70	11.70	100	2.20
40	31.77	71	11.21	101	2.04
41	30.93	72	10.72	102	1.88
42	30.09	73	10.22	103	1.72
43	29.26	74	9.73	104	1.55
44	28.43	75	9.24	105	1.38
45	27.61	76	8.75	106	1.21
46	26.80	77	8.28	107	1.04
47	25.99	78	7.83	108	.88
48	25.18	79	7.41	109	.72
49	24.38	80	7.00	110	.50
50	23.59				

1981 Disability (Safety)

## EXHIBIT 8.7 – SALARY INCREASE ASSUMPTION

— Sample Rates —

## **GENERAL MEMBERS**

## **SAFETY MEMBERS**

Age	Merit and Longevity	Total*	Merit and Longevity	Total*
20	4.64%	8.85%	2.88%	7.01%
25	3.50	7.65	2.13	6.23
30	2.22	6.32	1.58	5.65
35	0.48	4.50	0.45	4.47
40	0.46	4.49	0.55	4.58
45	0.45	4.47	0.54	4.56
50	0.55	4.58	0.53	4.55
55	0.54	4.56	0.51	4.54
60	0.53	4.55	_	_

<sup>\*</sup> Salary scale of merit and longevity plus 4.00% for inflation.

The June 30, 2006 actuarial valuation of the Association was based on the following data. For comparison, we also show a summary of the June 30, 2005 statistical information.

**EXHIBIT 9.1 - SUMMARY OF RETIRED MEMBERSHIP** 

	June 30, 2005	June 30, 2006	Percentage Change During the Period
GENERAL			
Number	1,922	2,039	6.1%
Basic Annual Allowance	\$ 26,146,000	\$ 29,833,000	14.1%
Average Basic Monthly Allowance	\$ 1,134	\$ 1,219	7.5%
Total Annual Allowance	\$ 34,321,000	\$ 38,540,000	12.3%
Average Total Monthly Allowance	\$ 1,488	\$ 1,575	5.8%
SAFETY			
Number	371	404	8.9%
Basic Annual Allowance	\$ 10,632,000	\$ 11,747,000	10.5%
Average Basic Monthly Allowance	\$ 2,388	\$ 2,423	1.5%
Total Annual Allowance	\$ 13,102,000	\$ 14,571,000	11.2%
Average Total Monthly Allowance	\$ 2,943	\$ 3,006	2.1%
TOTAL			
Number	2,293	2,443	6.5%
Basic Annual Allowance	\$ 36,778,000	\$ 41,580,000	13.1%
Average Basic Monthly Allowance	\$ 1,337	\$ 1,418	6.1%
Total Annual Allowance	\$ 47,423,000	\$ 53,111,000	12.0%
Average Total Monthly Allowance	\$ 1,724	\$ 1,812	5.1%

**EXHIBIT 9.2 - SUMMARY OF INACTIVE MEMBERSHIP** 

	June 30, 2005	June 30, 2006	Percentage Change During the Period
TOTAL			
Number	891	915	2.7%

**EXHIBIT 9.3 - SUMMARY OF ACTIVE MEMBERSHIP** 

	June 30, 2005	June 30, 2006	Percentage Change During the Period
GENERAL TIER 1/4			
Number	276	235	(14.9)%
Annual Payroll*	\$ 17,608,000	\$ 15,588,000	(11.5)%
Average Monthly Salary	\$ 5,316	\$ 5,528	4.0%
Average Age	54.56	55.14	1.1%
Average Service	25.49	26.22	2.9%
GENERAL TIER 2/5			
Number	3,338	3,403	1.9%
Annual Payroll*	\$ 153,671,000	\$ 162,124,000	5.5%
Average Monthly Salary	\$ 3,836	\$ 3,970	3.5%
Average Age	43.90	44.05	0.3%
Average Service	7.95	8.25	3.8%
GENERAL TIER 3			
Number	49	45	(8.2)%
Annual Payroll*	\$ 2,120,000	\$ 2,055,000	(3.1)%
Average Monthly Salary	\$ 3,605	\$ 3,806	5.6%
Average Age	46.24	47.27	2.2%
Average Service	9.88	10.96	10.9%
SAFETY TIER 1/4			
Number	21	14	(33.3)%
Annual Payroll*	\$ 1,709,000	\$ 1,114,000	(34.8)%
Average Monthly Salary	\$ 6,780	\$ 6,631	(2.2)%
Average Age	52.10	51.86	(0.5)%
Average Service	24.48	24.21	(1.1)%
SAFETY TIER 2/5			, ,
Number	663	669	0.9%
Annual Payroll*	\$ 36,573,000	\$ 38,887,000	6.3%
Average Monthly Salary	\$ 4,597	\$ 4,844	5.4%
Average Age	36.21	36.51	0.8%
Average Service	7.36	7.73	5.0%
TOTAL			
Number	4,347	4,366	0.4%
Annual Payroll*	\$ 211,681,000	\$ 219,768,000	3.8%
Average Monthly Salary	\$ 4,058	\$ 4,195	3.4%
Average Age	43.47	43.55	0.2%
Average Service	9.07	9.22	1.7%

<sup>\*</sup> Represents the annualization of active members' pay rates on June 30.

# EXHIBIT 9.4 - AGE AND SERVICE DISTRIBUTION WITH ANNUAL AVERAGE SALARY OF ACTIVE GENERAL MEMBERS AS OF JUNE 30, 2006

## TIER 1/4 - MALES

_				1 cars 0	1 Service			
CURRENT								
AGE								
_	0-4	5-9	10-14	15-19	20-24	25-29	30 & OVER	TOTAL
Below 19	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
40-44	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
45-49	0	0	0	0	1	0	0	1
	0	0	0	0	88,129	0	0	88,129
50-54	0	2	1	2	0	15	5	25
	0	85,233	185,124	54,581	0	64,720	62,476	69,917
55-59	2	1	0	2	2	18	14	39
	110,369	122,001	0	80,151	98,586	77,203	95,984	88,042
60-64	0	0	0	1	0	2	4	7
	0	0	0	148,636	0	71,542	58,975	75,374
65-69	0	0	0	0	0	0	1	1
	0	0	0	0	0	0	46,608	46,608
70 & Over	0	0	0	0	0	0	1	1
_	0	0	0	0	0	0	83,194	83,194
Total	2	3	1	5	3	35	25	74
	110,369	97,489	185,124	83,620	95,100	71,530	80,874	80,096

# EXHIBIT 9.5 - AGE AND SERVICE DISTRIBUTION WITH ANNUAL AVERAGE SALARY OF ACTIVE GENERAL MEMBERS AS OF JUNE 30, 2006

## TIER 1/4 - FEMALES

Current								
Age								
_	0-4	5-9	10-14	15-19	20-24	25-29	30 & OVER	TOTAL
Below 19	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
40-44	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
45-49	2	1	0	2	1	16	1	23
	90,359	55,328	0	68,878	51,718	50,186	24,248	54,467
50-54	1	4	3	4	3	34	22	71
	121,615	51,651	44,158	48,102	50,080	61,193	65,839	61,019
55-59	0	2	1	3	2	23	17	48
	0	48,309	67,245	73,823	46,761	59,233	64,050	61,043
60-64	1	2	0	3	0	5	5	16
	53,146	36,780	0	57,762	0	75,357	61,754	61,597
65-69	0	0	0	0	0	1	1	2
	0	0	0	0	0	57,340	32,668	45,004
70 & Over	0	0	0	0	0	0	1	1
_	0	0	0	0	0	0	70,064	70,064
T-4-1	A	0	4	10		70	47	171
Total	4	9	40.020	12	6	79 50 241	47 62 257	161
	88,870	48,012	49,930	60,410	49,247	59,241	63,257	60,005

# EXHIBIT 9.6 - AGE AND SERVICE DISTRIBUTION WITH ANNUAL AVERAGE SALARY OF ACTIVE GENERAL MEMBERS AS OF JUNE 30, 2006

## TIER 2/5 - MALES

_								
Current								_
Age								
	0-4	5-9	10-14	15-19	20-24	25-29	30 & OVER	TOTAL
Below 19	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
20-24	18	0	0	0	0	0	0	18
	31,931	0	0	0	0	0	0	31,931
25-29	61	10	0	0	0	0	0	71
	36,014	49,328	0	0	0	0	0	37,889
30-34	48	38	4	0	0	0	0	90
	40,454	58,781	63,980	0	0	0	0	49,238
35-39	44	42	23	2	1	0	0	112
	46,072	61,656	64,974	56,050	72,802	0	0	56,215
40-44	41	56	27	22	1	0	0	147
	48,796	52,654	55,454	59,850	31,895	0	0	53,028
45-49	37	52	26	30	7	4	0	156
	60,029	57,031	63,884	68,750	64,957	76,707	0	61,998
50-54	38	33	26	20	14	2	1	134
	54,523	55,937	65,216	68,122	71,142	25,972	55,256	60,291
55-59	22	33	23	28	11	4	1	122
	50,038	60,822	62,210	65,935	66,424	98,672	91,057	62,306
60-64	6	11	10	7	1	1	0	36
	55,020	47,125	56,409	70,427	141,306	62,151	0	58,584
65-69	2	2	1	3	0	0	0	8
	122,483	41,517	38,428	102,122	0	0	0	84,099
70 & Over	0	0	2	0	0	0	0	2
_	0	0	77,039	0	0	0	0	77,039
_								
Total	317	277	142	112	35	11	2	896
	46,404	56,625	61,913	66,958	69,353	74,146	73,157	55,888

# EXHIBIT 9.7 - AGE AND SERVICE DISTRIBUTION WITH ANNUAL AVERAGE SALARY OF ACTIVE GENERAL MEMBERS AS OF JUNE 30, 2006

## TIER 2/5 - FEMALES

_								
Current								
Age								
	0-4	5-9	10-14	15-19	20-24	25-29	30 & OVER	TOTAL
Below 19	1	0	0	0	0	0	0	1
	20,314	0	0	0	0	0	0	20,314
20-24	65	0	0	0	0	0	0	65
	29,382	0	0	0	0	0	0	29,382
25-29	168	52	1	0	0	0	0	221
	34,242	37,670	35,190	0	0	0	0	35,053
30-34	164	121	18	1	0	0	0	304
	35,499	45,963	43,342	47,282	0	0	0	40,167
35-39	117	144	57	22	1	0	0	341
	35,754	47,755	44,907	51,027	44,384	0	0	43,363
40-44	107	150	67	56	10	0	0	390
	36,915	45,177	48,590	56,621	47,452	0	0	45,198
45-49	111	127	76	72	30	9	0	425
	40,619	47,783	55,952	52,649	56,229	46,548	0	48,767
50-54	86	128	65	80	30	11	0	400
	42,382	49,235	49,082	51,344	53,244	54,955	0	48,617
55-59	38	83	36	61	17	8	1	244
	37,973	47,158	53,336	50,431	64,813	61,259	45,623	49,143
60-64	11	39	19	16	1	4	1	91
	61,438	42,784	54,263	51,790	62,222	43,898	30,613	49,148
65-69	3	10	5	4	1	0	0	23
	33,520	46,032	52,996	42,705	47,194	0	0	45,386
70 & Over	0	1	1	0	0	0	0	2
_	0	38,213	29,281	0	0	0	0	33,747
•								
Total	871	855	345	312	90	32	2	2,507
	36,752	46,345	50,199	52,291	55,715	52,784	38,118	44,694

# EXHIBIT 9.8 - AGE AND SERVICE DISTRIBUTION WITH ANNUAL AVERAGE SALARY OF ACTIVE GENERAL MEMBERS AS OF JUNE 30, 2006

TIER 3 - MALES

_								
Current								
Age								
	0-4	5-9	10-14	15-19	20-24	25-29	30 & OVER	TOTAL
Below 19	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
25-29	1	1	0	0	0	0	0	2
	37,114	65,015	0	0	0	0	0	51,065
30-34	1	1	0	0	0	0	0	2
	60,591	69,404	0	0	0	0	0	64,998
35-39	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
40-44	0	2	0	0	0	0	0	2
	0	49,048	0	0	0	0	0	49,048
45-49	0	2	0	0	0	0	0	2
	0	54,869	0	0	0	0	0	54,869
50-54	0	2	1	0	0	0	0	3
	0	56,622	53,372	0	0	0	0	55,539
55-59	0	0	1	0	0	0	1	2
	0	0	41,315	0	0	0	31,993	36,654
60-64	1	0	0	0	0	0	0	1
	118,121	0	0	0	0	0	0	118,121
65-69	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
70 & Over	0	0	0	0	0	0	0	0
_	0	0	0	0	0	0	0	0
Total	3	8	2	0	0	0	1	14
	71,942	56,937	47,344	0	0	0	31,993	57,000

# EXHIBIT 9.9 - AGE AND SERVICE DISTRIBUTION WITH ANNUAL AVERAGE SALARY OF ACTIVE GENERAL MEMBERS AS OF JUNE 30, 2006

TIER 3 - FEMALES

				i cais oi	Sel vice			
Current								
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 & OVER	TOTAL
Below 19	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
25-29	0	1	0	0	0	0	0	1
	0	33,976	0	0	0	0	0	33,976
30-34	0	1	2	0	0	0	0	3
	0	36,102	39,814	0	0	0	0	38,577
35-39	0	3	0	0	0	0	0	3
	0	42,295	0	0	0	0	0	42,295
40-44	0	2	2	0	0	0	0	4
	0	43,099	37,926	0	0	0	0	40,513
45-49	0	5	2	1	0	0	0	8
	0	39,367	33,992	31,877	0	0	0	37,087
50-54	0	2	0	1	0	0	0	3
	0	31,437	0	45,907	0	0	0	36,260
55-59	0	1	1	2	1	0	0	5
	0	56,549	37,967	43,066	34,852	0	0	43,100
60-64	0	0	1	0	0	1	1	3
	0	0	34,413	0	0	50,432	47,546	44,130
65-69	0	1	0	0	0	0	0	1
	0	64,496	0	0	0	0	0	64,496
70 & Over	0	0	0	0	0	0	0	0
_	0	0	0	0	0	0	0	0
Total	0	16	8	4	1	1	1	31
	0	41,495	36,981	40,979	34,852	50,432	47,546	40,532

# EXHIBIT 9.10 - AGE AND SERVICE DISTRIBUTION WITH ANNUAL AVERAGE SALARY OF ACTIVE SAFETY MEMBERS AS OF JUNE 30, 2006

TIER 1/4 - TOTAL

Years of	Service
----------	---------

				Years of	Service			
Current Age								
_	0-4	5-9	10-14	15-19	20-24	25-29	30 & OVER	TOTAL
Below 19	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
40-44	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	4	0	4
	0	0	0	0	0	90,508	0	90,508
50-54	1	1	0	0	1	5	1	9
	66,613	61,102	0	0	97,185	72,079	65,244	72,282
55-59	0	0	0	0	0	0	1	1
	0	0	0	0	0	0	101,257	101,257
60-64	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
65-69	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
70 & Over	0	0	0	0	0	0	0	0
_	0	0	0	0	0	0	0	0
Total	1	1	0	0	1	9	2	14
	66,613	61,102	0	0	97,185	80,270	83,251	79,559

# EXHIBIT 9.11 - AGE AND SERVICE DISTRIBUTION WITH ANNUAL AVERAGE SALARY OF ACTIVE SAFETY MEMBERS AS OF JUNE 30, 2006

TIER 2/5 - TOTAL

_								
Current								
Age								
_	0-4	5-9	10-14	15-19	20-24	25-29	30 & OVER	TOTAL
Below 19	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
20-24	52	0	0	0	0	0	0	52
	43,565	0	0	0	0	0	0	43,565
25-29	103	21	0	0	0	0	0	124
	48,595	57,980	0	0	0	0	0	50,184
30-34	54	82	12	0	0	0	0	148
	51,377	58,742	61,577	0	0	0	0	56,285
35-39	24	46	43	16	0	0	0	129
	52,599	61,437	62,532	63,934	0	0	0	60,467
40-44	16	24	25	29	6	0	0	100
	51,391	68,944	65,714	68,074	73,759	0	0	65,365
45-49	5	13	14	16	10	2	0	60
	52,523	63,571	68,841	62,038	69,219	77,496	0	64,877
50-54	10	10	4	11	3	1	0	39
	65,607	73,141	69,613	70,872	66,815	63,209	0	69,466
55-59	3	7	0	3	2	0	0	15
	69,622	62,857	0	69,946	77,376	0	0	67,564
60-64	0	0	1	1	0	0	0	2
	0	0	63,505	53,200	0	0	0	58,353
65-69	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
70 & Over	0	0	0	0	0	0	0	0
_	0	0	0	0	0	0	0	0
m . 1	267	202	00	7.	21	2	0	660
Total	267	203	99	76	21	3	0	669
	49,652	61,640	64,408	66,215	70,950	72,734	0	58,127

# EXHIBIT 9.12 - AVERAGE ANNUAL BENEFIT AND MEMBERSHIP DISTRIBUTION OF RETIRED GENERAL MEMBERS AS OF JUNE 30, 2006

## **MALES**

#### Years of Retirement

_								
Current								
Age								
	0-4	5-9	10-14	15-19	20-24	25-29	30 & OVER	TOTAL
Below 45	3	1	1	0	0	0	0	5
	7,860	21,050	16,012	0	0	0	0	12,128
45-49	2	0	0	3	0	0	0	5
	10,792	0	0	7,823	0	0	0	9,011
50-54	21	7	3	0	1	0	0	32
	15,747	11,266	11,220	0	5,453	0	0	14,021
55-59	74	26	4	2	1	0	1	108
	33,169	16,649	15,007	15,144	16,524	0	13,317	27,848
60-64	74	46	20	3	1	0	0	144
	36,583	28,915	12,336	19,783	18,179	0	0	30,288
65-69	26	47	31	18	2	0	1	125
	26,895	21,349	17,812	19,644	21,221	0	5,646	21,252
70-74	5	21	28	24	8	4	0	90
	25,332	21,505	27,074	24,362	10,869	10,148	0	22,762
75-79	1	1	18	27	23	14	2	86
	1,587	5,893	26,459	25,212	20,656	9,977	7,946	20,874
80-84	0	0	5	12	28	11	2	58
	0	0	16,780	15,822	26,210	12,579	22,300	20,528
85 & Over	0	0	0	0	11	27	15	53
_	0	0	0	0	24,466	16,093	11,179	16,440
Total	206	149	110	89	75	56	21	706
2000	30,898	22,307	20,244	21,595	21,969			

# EXHIBIT 9.13 - AVERAGE ANNUAL BENEFIT AND MEMBERSHIP DISTRIBUTION OF RETIRED GENERAL MEMBERS AS OF JUNE 30, 2006

### **FEMALES**

Years of Retirement

				i cais of ix	Cuicificit			
Current								
Age								
	0-4	5-9	10-14	15-19	20-24	25-29	30 & OVER	TOTAL
Below 45	5	5	0	1	0	0	0	11
	15,866	15,315	0	4,476	0	0	0	14,580
45-49	9	5	3	1	0	0	0	18
	11,563	10,972	17,283	16,829	0	0	0	12,645
50-54	59	10	8	1	1	0	0	79
	18,497	10,811	19,970	7,839	11,144	0	0	17,445
55-59	147	49	6	7	1	2	0	212
	27,552	12,771	11,098	13,643	10,622	7,704	0	22,944
60-64	111	68	32	3	2	1	1	218
	29,498	14,729	12,989	15,043	12,930	6,401	14,189	21,941
65-69	50	73	43	34	4	2	0	206
	16,034	18,889	14,412	9,550	10,099	7,255	0	15,437
70-74	8	48	45	30	26	3	0	160
	14,810	13,507	20,622	10,616	13,195	13,043	0	14,972
75-79	0	11	35	47	33	22	6	154
	0	15,876	16,994	17,839	12,229	6,151	8,685	14,278
80-84	1	1	6	17	44	44	26	139
	697	6,365	16,772	16,244	15,040	8,362	8,176	11,699
85 & Over	0	1	1	5	25	45	59	136
_	0	5,342	14,754	12,922	12,641	9,179	7,245	9,127
Total	390	271	179	146	136	119	92	1,333
	24,410			13,645		8,334	7,678	16,545

# EXHIBIT 9.14 - AVERAGE ANNUAL BENEFIT AND MEMBERSHIP DISTRIBUTION OF RETIRED SAFETY MEMBERS AS OF JUNE 30, 2006

## **TOTAL**

Years of Retirement

Current								
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 & OVER	TOTAL
Below 45	22	4	2	1	0	0	0	29
	26,841	25,744	23,279	10,071	0	0	0	25,866
45-49	14	9	4	3	0	0	0	30
	22,140	21,897	24,737	23,947	0	0	0	22,594
50-54	40	9	10	4	2	0	0	65
	41,536	25,720	26,135	23,507	21,051	0	0	35,237
55-59	60	19	9	2	2	0	0	92
	57,895	35,138	24,749	32,478	24,972	0	0	48,684
60-64	18	35	11	7	2	1	0	74
	39,360	48,826	28,524	21,806	19,400	18,820	0	39,749
65-69	4	8	20	8	3	0	1	44
	33,631	44,882	40,642	44,868	24,319	0	18,225	39,922
70-74	1	1	6	11	7	2	3	31
	23,260	29,205	23,294	41,356	26,490	22,955	11,275	29,429
75-79	0	0	2	2	7	5	2	18
	0	0	17,759	37,089	27,390	17,746	13,186	23,140
80-84	0	0	0	0	1	10	4	15
	0	0	0	0	22,683	19,186	9,307	16,785
85 & Over	0	0	0	0	0	0	6	6
_	0	0	0	0	0	0	15,907	15,907
Total	159	85	64	38	24	18	16	404
	43,408		30,179			19,184		

# **EXHIBIT 9.15 - SUMMARY OF ANNUAL RETIREMENT ALLOWANCES**

# AS OF JUNE 30, 2006

### GENERAL MEMBERS

		Number		Annual Allowance
Service				
	Males	582	\$	14,772,409
	Females	1,027		17,885,524
	Total	1,609	\$	32,657,933
Disability				
Disconity	Males	79	\$	1,337,650
	Females	122	Ψ	1,836,117
	Total	201	\$	3,173,767
D C				
Beneficiaries	Males	45	\$	375,493
	Females	184		2,333,195
	Total	229	\$	2,708,688
Total		2,039	\$	38,540,388
		SAFETY MEMBERS		
		SALETT MEMBERS		
		Number		Annual Allowance
Service		400		00.2
	Males	198	\$	8,865,175
	Females	33	Φ.	1,401,337
	Total	231	\$	10,266,512
Disability				
	Males	91	\$	2,434,233
	Females	18		432,402
	Total	109	\$	2,866,635
Beneficiaries				
	Males	2	\$	22,531
	Females	62		1,415,589
	Total	64	\$	1,438,120
Total		404	\$	14,571,267

# GENERAL MEMBERS WITHOUT BENEFIT ENHANCEMENTS

	Tier 1	Tier 2	Tier 3			
Section	31676.12	31676.1	31499.14			
Membership	Full-time or permanent part-time (50% or more of regular hours) employment with Stanislaus County; enter first day of employment.  New members after 7/1/80 enter Tier 2 or Tier 3, at irrevocable employee option.					
	a	i irrevocable employee option	ш.			
Normal Retirement Age (NRA)	62	65	65			
Final Average Salary (FAS)	1 Year	3 Years	3 Years			
Service Retirement (SR)						
a. Eligibility	10 years and age 50, or 3	30 years regardless of age.	10 years and age 55			
b. Earliest retirement age	50	50	55			
c. Benefit	2% of FAS per year of service times ERF	1.667% of FAS per year of service times ERF	For each year of service up to 35: 2% of FAS less 1/35th of Social Security Benefit at age 65. For each year of service over 35 (up to 10): 1% of FAS times ERF.			
d. Early reduction factor (ERF) a	nt:					
<ol> <li>Age 50</li> <li>Age 55</li> <li>Age 60</li> <li>Age 62</li> <li>Age 65</li> </ol>	.6681 .8850 1.1686 1.3093 1.3093	.7091 .8954 1.1500 1.2548 1.4593	Actuarially Equivalent Actuarially Equivalent Actuarially Equivalent Actuarially Equivalent Actuarially Equivalent			
e. Integration with Social Security		1/56; benefits based on first .S are reduced by 1/3.				
f. Maximum benefit	100%	of FAS	Benefit and Social Security combined cannot exceed 70% of FAS if service is less than 35, otherwise 80%			
g. Form of benefit	continuanc	uity; 60% ce to spouse a of member	Life annuity; 50% continuance to spouse after death of member			

# GENERAL MEMBERS WITHOUT BENEFIT ENHANCEMENTS

(continued)

		Tier 1	Tier 2	Tier 3				
Disability Reti	rement *							
a. Nonservic	ce connected (NSC)	D)						
1. Eli	gibility	5 Years	5 Years	None				
2. Dis	sabled definition	Disabled for employee's job						
3. Bei	nefit	per year of service; (1.5% for Tier 2) of I projected to age 6	Maximum of (1) 1.8% (1.5% for Tier 2) of FAS per year of service; (2) lesser of (a) 1.8% (1.5% for Tier 2) of FAS per year of service projected to age 62 (65 for Tier 2), or (b) 1/3 of FAS; (3) SR benefit if eligible.					
4. For	rm of benefit	Life annuity; 60 spouse after d						
b. Service co	onnected							
1. Eli	gibility	First da	y of work					
2. Dis	sabled definition	Substantially caused by employment and is disabled for employee's job						
3. Bei	nefit	50% of FAS; not less the	50% of FAS; not less than SR benefit if eligible					
4. For	rm of benefit	Life annuity; 100% continuance to spouse after death of member						
Termination B	Senefits							
a. Eligibility requirem	-	5 Years	5 Years	10 Years				
b. Other requ	uirements	Must leave contri	butions on deposit.					
c. Benefit			Same as SR benefit.					
d. FAS			ciprocity provisions apply, incluensation earned at reciprocal sys					
e. Form of b	enefit	Deferred life annuity; 60% continuance (50% for Tier 3) to spouse after death of member.						
Withdrawal of	Contributions							
a. Eligibility	,		ble for any other benefit, or electrontributions in lieu of any other					
b. Benefit		Accumulated of	Accumulated contributions with interest; paid in lump sum.					

<sup>\*</sup> The period during which the member is totally disabled under the County Special Disability Plan will be counted as service retirement credit under Tier 3 (if the member returns to active service with the County).

# GENERAL MEMBERS WITHOUT BENEFIT ENHANCEMENTS

(continued)

		Tier 1	Tier 2	Tier 3
Deat	th Benefits (while active)			
a.	Nonservice connected death before eligible for NSCD (i.e., employed less than 5 years)	Return of contributions for each year of servic 6 months' salary. Pai	None	
b.	Nonservice connected death after eligible for NSCD	60% of NSCD benef dependent children. shown abo	None	
c.	Service connected death	1st day of work; 50% of FA if eligible. Paid to spouse none, benefit in	None	
Deat	th Benefits (after retirement)			
a.	Automatic continuance to spouse			
	1. Service Retirement	60%	60%	50%
	2. Nonservice connected disability	60%	60%	None
	3. Service connected disability	100%	100%	None
b.	Lump sum burial allowance	\$5,000	\$5,000	None
<b>Cost-of-living Benefits</b>		3% maximu	None	
Emp	oloyee Contributions			
a.	Basic - Sufficient to provide average annuity per year at age 60 of:	1/200 of FAS ("Half Rates")	1/120 of FAS ("Full Rates")	None
b.	COL	Members pay for half (half rates for Tie percentage o	None	
c.	Other provisions	Rates based on age a For members prior to 3 after 30 year City of Ceres mem Members integrated pay 2/3 rate on firs	None	
Emp	oloyer Contributions	Responsible for l	Responsible for balance required.	

# COUNTY/FORMER COUNTY GENERAL MEMBERS WITH BENEFIT ENHANCEMENTS

	Tier 4	Tier 5	Tier 3			
Section	31676.14	31676.14	31499.14			
Membership	Full-time or permanent part-time (50% or more of regular hours) employment wi Stanislaus County; enter first day of employment.					
	New members after 7/1/80 enter Tier 2 or Tier 3, at irrevocable employee option.					
	New m	nembers after 3/9/2002 enter	Tier 5.			
Normal Retirement Age (NRA)	62	62	65			
Final Average Salary (FAS)	1 Year	1 Year	3 Years			
Service Retirement (SR)						
a. Eligibility	10 years and age 50, or 3	0 years regardless of age.	10 years and age 55			
b. Earliest retirement age	50	50	55			
c. Benefit	1.667% of FAS per year of service times ERF	1.667% of FAS per year of service times ERF	For each year of service up to 35: 2% of FAS less 1/35th of Social Security Benefit at age 65. For each year of service over 35 (up to 10): 1% of FAS times ERF.			
d. Early reduction factor (ERF) a	at:					
1. Age 50 2. Age 55 3. Age 60 4. Age 62 5. Age 65	.8850 1.1686 1.4638 1.5668	.8850 1.1686 1.4638 1.5668 1.5668	Actuarially Equivalent Actuarially Equivalent Actuarially Equivalent Actuarially Equivalent Actuarially Equivalent			
e. Integration with Social Security	Applies to service after 1/1 \$350 of monthly FA	/56; benefits based on first S are reduced by 1/3.				
f. Maximum benefit	100% of FAS		Benefit and Social Security combined cannot exceed 70% of FAS if service is less than 35, otherwise 80%			
g. Form of benefit	Life annu continuanc after death	- <del>-</del>	Life annuity; 50% continuance to spouse after death of member			

# COUNTY/FORMER COUNTY GENERAL MEMBERS WITH BENEFIT ENHANCEMENTS

(continued)

		Tier 4	Tier 5	Tier 3			
Disability Retir	rement *						
a. Nonservice	e connected (NSC	D)					
1. Elig	ibility	5 Years	5 Years	None			
2. Disa	abled definition	Disabled for employee's job					
3. Ben	efit	Maximum of ( per year of service; of FAS per y projected to (b) 1/3 of FAS; (3) S					
4. For	m of benefit	•	% continuance to				
		spouse after death of member					
b. Service con	nnected			None			
_	ibility	First day of work					
2. Disa	abled definition	Substantially caused by employment and is disabled for employee's job					
3. Ben	efit	50% of FAS; not less than SR benefit if eligible					
4. Fori	m of benefit	Life annuity; 100% continuance to spouse after death of member					
Termination Be	enefits						
a. Eligibility requireme	_	5 Years	5 Years	10 Years			
b. Other requ	irements	Must leave contri	butions on deposit.				
c. Benefit			Same as SR benefit.				
d. FAS			iprocity provisions apply, inclusions at reciprocal sy				
e. Form of be	enefit	Deferred life annuity; 60% continuance (50% for Tier 3) to spouse after death of member.					
Withdrawal of	Contributions						
a. Eligibility		•	ble for any other benefit, or ele ontributions in lieu of any other	•			
b. Benefit		Accumulated co	ontributions with interest; paid	l in lump sum.			

<sup>\*</sup> The period during which the member is totally disabled under the County Special Disability Plan will be counted as service retirement credit under Tier 3 (if the member returns to active service with the County).

# COUNTY/FORMER COUNTY GENERAL MEMBERS WITH BENEFIT ENHANCEMENTS

(continued)

		Tier 4	Tier 5	Tier 3		
Deat	h Benefits (while active)					
a.	Nonservice connected death before eligible for NSCD (i.e., employed less than 5 years)	Return of contributions for each year of servic 6 months' salary. Pai	None			
b.	Nonservice connected death after eligible for NSCD	dependent children.	60% of NSCD benefit, paid to spouse or dependent children. If none, benefit in a. shown above is paid.			
c.	Service connected death	1st day of work; 50% of FA if eligible. Paid to spouse none, benefit in	None			
Deat	h Benefits (after retirement)					
a.	Automatic continuance to spouse					
	1. Service Retirement	60%	60%	50%		
	2. Nonservice connected disability	60%	60%	None		
	3. Service connected disability	100%	100%	None		
b.	Lump sum burial allowance	\$5,000	\$5,000	None		
<b>Cost-of-living Benefits</b>		3% maximu	None			
Emp	loyee Contributions					
a.	Basic - Sufficient to provide average annuity per year at age 55 of:	1/240 of FAS ("Half Rates")	1/120 of FAS ("Full Rates")	None		
b.	COL	(half rates for Tie	Members pay for half of future COL costs (half rates for Tier 1); expressed as percentage of basic rates			
c.	Other provisions	For members prior to 3 after 30 year City of Ceres mem Members integrated	Rates based on age at entry into system.  For members prior to 3/7/73, no contributions after 30 years of service.  City of Ceres members pay full rates.  Members integrated with Social Security pay 2/3 rate on first \$350 per month.			
Emp	oloyer Contributions	Responsible for b	palance required.	Responsible for entire cost.		

# COUNTY/FORMER COUNTY SAFETY MEMBERS WITH BENEFIT ENHANCEMENTS

	Tier 4	Tier 5
Section	31664.1	31664.1
Membership	Full-time or permanent part-time (50% or more of regular hours) employment with Stanislaus County; enter first day of employment.	
	New members after 3/9	9/2002 enter Tier 5.
Normal Retirement Age (NRA)	50	50
Final Average Salary (FAS)	1 Year	1 Year
Service Retirement (SR)		
a. Eligibility	10 years and age 50, or 20	years regardless of age.
b. Earliest retirement age	41	41
c. Benefit	3% of FAS per year of	f service times ERF
d. Early reduction factor (ERF) at:		
1. Age 45	.7805	.7805
2. Age 50	1.0000	1.0000
3. Age 55	1.0000	1.0000
e. Integration with Social Security	Applies to service after 1/1/5 \$350 of monthly FAS	
f. Maximum benefit	100% of	FAS
g. Form of benefit	Life annuity; 60% to spouse after de	
Disability Retirement		
a. Nonservice connected (NSCD)		
1. Eligibility	5 years	5 years
2. Disabled definition	Disabled for em	ployee's job.
3. Benefit	Maximum of (1) 1.8% of FAS pe lesser of (a) 1.8% of FAS pe to age 55, or (b) (3) SR benefit	r year of service projected 1/3 of FAS;
4. Form of benefit	Life annuity; 609 to spouse after de	
b. Service connected		
1. Eligibility	First day of	of work
2. Disabled definition	Substantially caused and is disabled for	
3. Benefit	50% of FAS; not less than	SR benefit if eligible.
4. Form of benefit	Life annuity; 100 to spouse after de	

# COUNTY/FORMER COUNTY SAFETY MEMBERS WITH BENEFIT ENHANCEMENTS

(continued)

	Tier 4	Tier 5		
Termination Benefits				
a. Eligibility (vesting requirement)	5 Years	5 Years		
b. Other requirements	Must leave contr	ributions on deposit.		
c. Benefit	Same as	SR benefit.		
d. FAS		apply, includes compensation ciprocal system.		
e. Form of benefit	Deferred life annuity; 60% continuance to spouse after death of member.			
Withdrawal of Contributions				
a. Eligibility		enefit, or electing to withdraw u of any other benefit.		
b. Benefit	Accumulated contributions with interest; paid in lump sum.			
<b>Death Benefits (while active)</b>				
<ul> <li>a. Nonservice connected death before eligible for NSCD (i.e., employed less than 5 years)</li> </ul>	Return of contributions, plus 1 month's salary for each year of service up to a maximum of 6 months' salary. Paid to any beneficiary.			
<ul> <li>b. Nonservice connected death after eligible for NSCD</li> </ul>		Paid to spouse or dependent it in a. shown above is paid.		
c. Service connected death	1st day of work; 50% of FAS, not less than SR benefit if eligible. Paid to spouse or dependent children. If none, benefit in a. shown above is paid.			
Death Benefits (after retirement)				
a. Automatic continuance to spouse				
1. Service retirement	60%	60%		
2. Nonservice connected disability	60%	60%		
3. Service connected disability	100%	100%		
b. Lump sum burial allowance	\$5,000	\$5,000		
Cost-of-Living Benefits	3% maxir	num per year		

# COUNTY/FORMER COUNTY SAFETY MEMBERS WITH BENEFIT ENHANCEMENTS

(continued)

	Tier 4	Tier 5	
<b>Employee Contributions</b>			
a. Basic - Sufficient to provide average annuity per year at age 50 of:	1/200 of FAS ("Half Rates")	1/100 of FAS ("Full Rates")	
b. COL	Members pay for half of future COL costs (half rates for Tier 1); expressed as percentage of basic rates		
c. Other provisions	Rates based on age at entry into system. For members prior to 3/7/73, no contributions after 30 years of service City of Ceres members pay full rates. Members integrated with Social Security pay 2/3 rate on first \$350 per month.		
<b>Employer Contributions</b>	Responsible for	r balance required.	

Following is a glossary of some of the commonly used actuarial terms.

Actuarial Accrued Liability The portion, as determined by a particular cost method, of

the total present value of benefits that is attributable to past

service credit.

Actuarial Gain (Loss)

A measure of the difference between actual and expected

experience based upon a set of actuarial assumptions. Examples include higher than expected salary increases (loss) and a higher return on fund assets than anticipated

(gain).

Actuarial Present Value Also referred to as the present value of benefits. It is the

value, as of a specified date, of an amount payable in the future, where the amount has been adjusted to reflect both the time value of money and the probability that the

payment is actually made.

Amortization or UAAL Payment That portion of the pension plan contribution which is

designed to pay off (amortize) the unfunded actuarial accrued liability in a systematic fashion. Equivalently, it is a

series of periodic payments required to pay off a debt.

Annual Amount Estimated contributions due for the year in order to ensure

the orderly funding of the pension plan (equal to the contribution rate multiplied by the annual payroll). The annual amount is comprised of normal cost and UAAL

payments.

# Section 11: Glossary of Terms

Entry Age Normal Cost Method This method assumes that the annual costs are the level

contributions needed from entry age until retirement age to fund the ultimate retirement benefit. These premiums are expressed as a percentage of salary. The portion of this actuarial present value

allocated to a valuation year is called the normal cost.

Final Average Salary The average amount of compensation earned over a specified

number of consecutive months preceding retirement during

which compensation was highest.

Funding Policy The policy for the amounts and timing of contributions to be

made by the employer, members and any other sources to

provide the benefits promised by the pension plan.

Noneconomic Actuarial Assumptions Probabilities that members will separate from active service for

causes such as retirement, disability, death and withdrawal, as well as rates of post-retirement mortality. The probabilities

reflect the experience of the Association membership.

Normal Cost The ongoing annual cost allocated to the system by a particular

actuarial cost method for providing benefits (future cost). Normal cost payments are made during the working lifetime of

the member.

Unfunded Actuarial Accrued Liability The excess of the actuarial accrued liability over the actuarial

value of assets.

Vested Benefit The benefit an employee is entitled to even if the employee

separates from active service prior to normal retirement age.

The following actuarial policies were adopted by the Board and were utilized in the preparation of this actuarial report.

- 1) The amortization period for over/under-funded Actuarial Accrued Liabilities was set at 20 years with the following:
  - The period is a rolling 20 years
  - The liability is reset annually
  - The amortization amount is a fixed dollar amount
  - This period applies to all employers
- 2) An asset smoothing method was applied to the market value of assets as follows:
  - A phase-in to 5-year smoothing was applied
  - The smoothing method was applied back to July 1, 2000
- 3) A corridor funding methodology was utilized:
  - An 80%/120% Actuarial Value Corridor around market value
  - A 2% contingency reserve was adopted, but is included in the valuation assets
  - The 10% market value fluctuation reserve was eliminated
- 4) The member accounts were credited interest at a market rate of return as follows:
  - a. The interest rate to be paid on December 31 and the subsequent June 30 be recommended and adopted by June 30 of the proceeding year
  - b. The rate of interest credited to member reserves be the actual fund rate of return for the year ended June 30 that coincides with the actuarial valuation:
    - i. net of management fees and management expenses, and
    - ii. net of consultant, actuarial, audit fees, etc. not included in the operating budget, and
    - iii. net of actual operating expenses, and
    - iv. less 50 basis points (.50%)
  - c. The minimum rate to be paid to members is 0.25% annually.
  - d. The maximum rate to be paid to members is the earnings assumption rate (currently 8.16%).
  - e. The difference between the rate actually credited to member accounts and the actuarial assumption rate for interest crediting be applied to a new Member Advance Reserve
  - f. If no new interest rate is adopted, the previous year's rate shall remain in effect

# **AGGREGATE RATES**

## **ALL AGENCIES**

		Employer		Employee		Total	
	Covered Salaries	Rate	Amount	Rate	Amount	Rate	Amount
Tier 1	46,608	13.54%	6,311	4.77%	2,223	18.31%	8,534
Tier 2	163,051	9.02%	14,707	7.06%	11,511	16.08%	26,218
Tier 3	2,054,507	3.94%	80,948	0.00%	0	3.94%	80,948
Tier 4	16,655,155	8.47%	1,410,021	3.44%	573,562	11.91%	1,983,583
Tier 5	200,848,344	9.33%	18,742,190	8.37%	16,805,600	17.70%	35,547,790
Miscellaneous	179,766,830	7.30%	13,126,549	7.27%	13,063,959	14.57%	26,190,508
Safety	40,000,835	17.82%	7,127,628	10.82%	4,328,937	28.64%	11,456,565
Total	\$219,767,665	9.22%	\$20,254,177	7.91%	\$17,392,896	17.13%	\$37,647,073

# COUNTY / FORMER COUNTY

	Employer		Employee		Total		
	Covered Salaries	Rate	Amount	Rate	Amount	Rate	Amount
Tier 1	0	0.00%	0	0.00%	0	0.00%	0
Tier 2	0	0.00%	0	0.00%	0	0.00%	0
Tier 3	2,054,507	3.94%	80,948	0.00%	0	3.94%	80,948
Tier 4	15,930,921	8.22%	1,309,055	3.43%	545,993	11.64%	1,855,048
Tier 5	191,351,832	9.05%	17,308,342	8.33%	15,941,113	17.38%	33,249,455
Miscellaneous	173,511,880	7.19%	12,473,869	7.27%	12,606,436	14.45%	25,080,305
Safety	35,825,380	17.37%	6,224,476	10.83%	3,880,670	28.21%	10,105,146
Total	\$209,337,260	8.93%	18,698,345	7.88%	\$16,487,106	16.81%	\$35,185,451

## CERES / DISTRICTS

		Employer		Employee		Total	
	Covered Salaries	Rate	Amount	Rate	Amount	Rate	Amount
Tier 1	46,608	13.54%	6,311	4.77%	2,223	18.31%	8,534
Tier 2	163,051	9.02%	14,707	7.06%	11,511	16.08%	26,218
Tier 3	0	0.00%	0	0.00%	0	0.00%	0
Tier 4	724,234	13.94%	100,966	3.81%	27,569	17.75%	128,535
Tier 5	9,496,512	15.10%	1,433,848	9.10%	864,487	24.20%	2,298,335
Miscellaneous	6,254,950	10.43%	652,680	7.31%	457,523	17.75%	1,110,203
Safety	4,175,455	21.63%	903,152	10.74%	448,267	32.37%	1,351,419
Total	\$10,430,405	14.92%	\$1,555,832	8.68%	\$905,790	23.60%	\$2,461,622

## MISCELLANEOUS AGGREGATE RATES

## **ALL AGENCIES**

		Em	Employer		Employee		Total	
	Covered Salaries	Rate	Amount	Rate	Amount	Rate	Amount	
Tier 1	46,608	13.54%	6,311	4.77%	2,223	18.31%	8,534	
Tier 2	163,051	9.02%	14,707	7.06%	11,511	16.08%	26,218	
Tier 3	2,054,507	3.94%	80,948	0.00%	0	3.94%	80,948	
Tier 4	15,541,326	7.63%	1,186,237	3.31%	514,418	10.94%	1,700,655	
Tier 5	161,961,338	7.31%	11,838,346	7.74%	12,535,807	15.05%	24,374,153	
Total	\$179,766,830	7.30%	\$13,126,549	7.27%	\$13,063,959	14.57%	\$26,190,508	

## COUNTY / FORMER COUNTY

	Covered Salaries	Employer		Employee		Total	
		Rate	Amount	Rate	Amount	Rate	Amount
Tier 1	0	0.00%	0	0.00%	0	0.00%	0
Tier 2	0	0.00%	0	0.00%	0	0.00%	0
Tier 3	2,054,507	3.94%	80,948	0.00%	0	3.94%	80,948
Tier 4	14,996,945	7.52%	1,127,770	3.31%	496,399	10.83%	1,624,169
Tier 5	156,460,428	7.20%	11,265,151	7.74%	12,110,037	14.94%	23,375,188
Total	\$173,511,880	7.19%	\$12,473,869	7.27%	\$12,606,436	14.45%	\$25,080,305

## CERES / DISTRICTS

	Covered Salaries	Emp	Employer		Employee		Total	
		Rate	Amount	Rate	Amount	Rate	Amount	
Tier 1	46,608	13.54%	6,311	4.77%	2,223	18.31%	8,534	
Tier 2	163,051	9.02%	14,707	7.06%	11,511	16.08%	26,218	
Tier 3	0	0.00%	0	0.00%	0	0.00%	0	
Tier 4	544,381	10.74%	58,467	3.31%	18,019	14.05%	76,486	
Tier 5	5,500,910	10.42%	573,195	7.74%	425,770	18.16%	998,965	
Total	\$6,254,950	10.43%	\$652,680	7.31%	\$457,523	17.75%	\$1,110,203	

# **SAFETY AGGREGATE RATES**

## **ALL AGENCIES**

		Emp	Employer		Employee		Total	
	Covered Salaries	Rate	Amount	Rate	Amount	Rate	Amount	
Tier 1	0	0.00%	0	0.00%	0	0.00%	0	
Tier 2	0	0.00%	0	0.00%	0	0.00%	0	
Tier 3	0	0.00%	0	0.00%	0	0.00%	0	
Tier 4	1,113,829	20.09%	223,784	5.31%	59,144	25.40%	282,928	
Tier 5	38,887,006	17.75%	6,903,844	10.98%	4,269,793	28.73%	11,173,637	
Total	\$40,000,835	17.82%	\$7,127,628	10.82%	\$4,328,937	28.64%	\$11,456,565	

## COUNTY / FORMER COUNTY

		Emp	oloyer	Employee		Total	
	Covered Salaries	Rate	Amount	Rate	Amount	Rate	Amount
Tier 1	0	0.00%	0	0.00%	0	0.00%	0
Tier 2	0	0.00%	0	0.00%	0	0.00%	0
Tier 3	0	0.00%	0	0.00%	0	0.00%	0
Tier 4	933,976	19.41%	181,285	5.31%	49,594	24.72%	230,879
Tier 5	34,891,404	17.32%	6,043,191	10.98%	3,831,076	28.30%	9,874,267
Total	\$35,825,380	17.37%	\$6,224,476	10.83%	\$3,880,670	28.21%	\$10,105,146

## CERES / DISTRICTS

	Covered Salaries	Employer		Emp	Employee		Total	
		Rate	Amount	Rate	Amount	Rate	Amount	
Tier 1	0	0.00%	0	0.00%	0	0.00%	0	
Tier 2	0	0.00%	0	0.00%	0	0.00%	0	
Tier 3	0	0.00%	0	0.00%	0	0.00%	0	
Tier 4	179,853	23.63%	42,499	5.31%	9,550	28.94%	52,049	
Tier 5	3,995,602	21.54%	860,653	10.98%	438,717	32.52%	1,299,370	
Total	\$4,175,455	21.63%	\$903,152	10.74%	\$448,267	32.37%	\$1,351,419	