# SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM

REPORT ON THE ACTUARIAL VALUATION AS OF JUNE 30, 2005



October 4, 2005

Board of Retirement
Santa Barbara County
Employees' Retirement System
3916 State Street, Suite 210
Santa Barbara, CA 93105

Members of the Board:

We are pleased to present our report on the actuarial valuation of the Santa Barbara County Employees' Retirement System as of June 30, 2005. The actuarial valuation is based on audited financial information and unaudited member data provided by the Retirement System 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,

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Michael Moehle, F.S.A., E.A., M.A.A.A.

Principal and Consulting Actuary

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**Director and Consulting Actuary** 

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

14				Valu	uation as of		Change Betw	
	Item		<u>June 30, 2004</u>		<u>June 30, 2005</u>		<b>Amount</b>	<u>Percent</u>
,	Contribution Summary*		10 110/		10.700/		1 (70/	0.20/
1.	Average Employer Contribution Rate	¢.	18.11%	Ф	19.78%	Ф	1.67%	9.2%
2.	Estimated Employer Contributions	\$	48,353,000	\$	52,969,000	\$	4,616,000	9.5%
3.	Average Member Contribution Rate	¢.	6.75%	Ф	6.90%	Ф	0.15%	2.2%
4.	Estimated Member Contributions	\$	16,965,000	\$	17,334,000	\$	369,000	2.2%
	Market Value of Assets							
5.	Market Value of Assets	\$	1,346,619,000	\$	1,476,158,000	\$	129,539,000	9.6%
6.	Actuarial Value of Assets	\$	1,379,170,000	\$	1,443,824,000	\$	64,654,000	4.7%
7.	Valuation Assets	\$	1,241,557,000	\$	1,305,995,000	\$	64,438,000	5.2%
	GASB No. 25 Funded Status							
8.	Actuarial Accrued Liability	\$	1,578,769,000	\$	1,687,632,000	\$	108,863,000	6.9%
9.	Unfunded Actuarial Accrued							
	Liability/(Surplus)	\$	199,599,000	\$	243,808,000	\$	44,209,000	22.1%
10.	Funded Ratio		87.4%		85.6%		(1.8%)	(2.1%)
	Summary of Data							
11.	Active Participants		4,503		4,505		2	0.0%
12.	Participants with Deferred Benefits		717		757		40	5.6%
13.	Retired Participants and Beneficiaries		<u>2,440</u>		<u>2,561</u>		<u>121</u>	5.0%
	Total		7,660		7,823		163	2.1%
	Retired Participant Statistics							
14.	Total Annual Allowance	\$	52,268,000	\$	58,824,000	\$	6,556,000	12.5%
15.	Average Annual Allowance	\$	21,421	\$	22,969	\$	1,548	7.2%
	Active Participant Statistics							
16.	Total Annual Compensation	\$	266,961,000	\$	267,785,000	\$	824,000	0.3%
17.	Average Annual Compensation	\$	59,285	\$	59,442	\$	157	0.3%
18.	Average Age		44.26		44.38		0.12	0.3%
19.	Average Service		10.17		10.32		0.15	0.3%
	Key Assumptions							
	Interest rate		8.16%		8.16%		N/A	N/A
	Inflation		4.50%		4.50%		N/A	N/A

<sup>\*</sup> Weighted by respective payrolls.

## **Purpose**

This report has been prepared by Buck to present the results of the June 30, 2005 actuarial valuation of the Santa Barbara County Employees' Retirement System. The main purposes of the report are to:

- 1. Calculate the annual contribution required to fund the System in accordance with actuarial principles;
- 2. Review the experience of the System over the past year and identify reasons for changes in contribution rates;
- 3. Determine any emerging trends in System costs;
- 4. 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 have been no changes in the actuarial assumptions since the last actuarial report as of June 30, 2003.

#### **Contribution Rates**

During the year, the calculated County contribution rate increased from 18.11 to 19.78%, an increase of 1.67%. The increase was mainly the result of the return on the actuarial value of assets of 5.0%, short of the actuarial assumption of 8.16%.

The contribution rates reflect the recommended current economic and noneconomic assumptions. The recommended rates utilize the recommended actuarial assumptions as outlined in our experience study report as of June 30, 2003.

#### **Asset Returns**

During the twelve months ended June 30, 2005, the System assets had an investment return of 9.9% on a market value basis and 5.0% 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 decreased from 87.4% on June 30, 2004 to 85.6% on June 30, 2005.

**Noneconomic Assumptions** 

A triannual experience study of the members of the System was performed at the time of the June 30, 2003 valuation. We analyzed the plan experience during the two and a half-year period from January 1, 2001 through June 30, 2003 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 these actuarial assumptions until the next experience analysis, which is due to be performed at the time of the June 30, 2006 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 continued.

#### **Investment Return Assumption**

Based upon future anticipated long-term returns on the System's targeted asset mixes, we also recommend that the 3.50% future real rate of return be continued. 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, 4.50%, into the recommended long-term salary increase assumption. The overall effect of the merit and longevity increases is to add approximately 1.00% to the total salary increase assumption.

#### **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 \$1,476,158,019 and the net current actuarial value of assets under this method was \$1,443,823,882, or about 98% of market value as of June 30, 2005.

#### **Actuarial Balance Sheet**

The actuarial balance sheet compares the present value of all future benefits anticipated to be paid for 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 Santa Barbara County Employees' Retirement System, which is a key component in the determination of the System'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 System's assets

## **Market Value of Assets**

Represents the fair market value of assets as of June 30, 2004 and June 30, 2005 as reported by the Trustee.

#### **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 \$1,476,158,019 and the net current actuarial value of assets under this method was \$1,443,823,882, or about 98% of market value as of June 30, 2005.

#### **Valuation Assets**

Represents the actuarial value of the assets 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. The valuation assets as of June 30, 2005 is \$1,305,994,931. As of the valuation date, there are four special reserves totaling \$137,828,951 not included in the valuation assets.

#### **Asset Returns**

During the twelve months ended June 30, 2005, the System assets had an investment return of 9.9% on a market value basis and 5.0% on an actuarial value basis, compared to the actuarial assumption of 8.16%.

## EXHIBIT 2.1 – STATEMENT OF PLAN NET ASSETS

## AS OF JUNE 30, 2004 AND JUNE 30, 2005

	June 30, 2004	June 30, 2005
Assets		
Cash and Cash Equivalents	\$ 5,617,044	\$ 14,470,162
Receivables		
Contributions	1,851,954	1,006,849
Accrued interest	2,553,668	3,084,757
Dividends	874,101	1,004,926
Due from brokers for security sales	46,761,149	71,996,601
Total Receivables	52,040,872	 77,093,133
Investments (At Fair Value)		
Short term investments	46,056,733	50,192,360
Domestic equity	688,591,135	730,202,552
Domestic fixed income	347,476,401	388,611,803
International equity	270,012,650	285,101,895
Real estate	29,851,955	58,270,318
Total Investments	 1,381,988,874	 1,512,378,928
Collateral Held for Securities Lent	190,891,848	190,456,778
Total Assets	\$ 1,630,538,638	\$ 1,794,399,001
Liabilities		
Accounts payable	174,938	188,599
Benefits payable	721,928	1,095,214
Collateral Held for Securities Lent	190,891,848	190,456,778
Due to brokers for security purchases	92,130,572	126,500,391
Total Liabilities	 283,919,286	318,240,982
Net Assets Held in Trust For Benefits	\$ 1,346,619,352	\$ 1,476,158,019

## EXHIBIT 2.2 – STATEMENT OF CHANGES IN PLAN NET ASSETS

## AS OF JUNE 30, 2004 AND JUNE 30, 2005

	June 3	0, 2004	June 30, 2005
Additions			
Contributions:			
Employer	\$	39,334,678	\$ 46,720,797
Plan Members		13,633,762	14,827,847
Total Contributions	:	52,968,440	61,548,644
Investment Income (Loss):			
Net Appreciation (Depreciation) in			
fair value of investments	10	62,070,041	106,888,032
Interest		14,923,133	17,111,951
Dividends		11,892,463	15,451,882
Total Investment Income/(Loss)	13	88,885,637	139,451,865
Less: Investment Expense	(	3,772,335)	(4,396,215)
Net Investment Income/(Loss)	18	85,113,302	135,055,650
Securities Lending Activities:			
Securities Lending Income		1,630,772	4,343,360
Less: Securities Lending Expenses	(	1,425,985)	(4,077,047)
Total Securities Income		204,787	266,313
Administrative Reimbursement		4,001	49,497
Total Additions	23	38,290,530	196,920,104
Deductions			
Benefits		57,634,424	64,254,302
Member withdrawals		1,467,988	1,284,974
Administrative expenses		1,985,863	1,842,161
Total Deductions	(	61,088,275	67,381,437
Increase in net assets	1′	77,202,255	129,538,667
Net Assets Held in Trust For Benefits			
Beginning of year	1,10	69,417,097	1,346,619,352
End of year	\$ 1,34	46,619,352	\$ 1,476,158,019

EXHIBIT 2.3 – ACTUARIAL VALUE OF ASSETS

1.		Contributions	Benefit Payments	Expected Investment <u>Return</u>	Actual Investment <u>Return</u>	Additional <u>Earnings</u>	Portion Deferred	Deferred <u>Earnings</u>
	2001	47,959,930	43,603,616	96,731,238	(2,985,071)	(99,716,309)	10%	(9,971,631)
	2002	45,267,450	50,634,377	96,446,423	(99,294,891)	(195,741,314)	30%	(58,722,394)
	2003	15,852,113	27,532,133	42,964,924	101,134,014	58,169,090	50%	29,084,545
	2004	52,968,440	59,102,412	95,174,169	183,336,227	88,162,058	60%	52,897,235
	2005	61,548,644	65,539,276	109,721,321	133,529,299	23,807,978	80%	19,046,382
	Total							32,334,137
2.	2. Market Value of Assets as of June 30, 2005							
3.	Actuar	rial Value of Asset	s as of June 30	,2005 = (2)-(1)	)			1,443,823,882
4.	Corrid	or Limit						
	a. 80	% of Net Market	Value					1,180,926,415
	b. 12	0% of Net Market	t Value					1,771,389,623
5.	Actuar	rial Value of Asset	s After corrido	r as of June 30,	2005			1,443,823,882
6.	Health	Coverage Reserv	e					45,040,785
	Supple	emental Health Co	verage Reserve	•				48,412,567
	Specia	l Allowance						19,605,788
	Contin	igency Reserve						24,769,811
	Total S	Special Reserves						137,828,951
7.	Valuat	ion Assets as of Ju	ne 30, 2005 =	(5)-(6)				1,305,994,931

## EXHIBIT 2.4 – ASSET GAIN/LOSS

			Valuation <u>Assets</u>	Actuarial <u>Value</u>		Market <u>Value</u>
1.	Total as of June 30, 2004	\$	1,241,556,614	\$ 1,379,170,014	\$	1,346,619,352
2.	Changes During the Year					
	County Contributions		46,720,797	46,720,797		46,720,797
	Member Contributions		14,827,847	14,827,847		14,827,847
	Benefit Payments		(57,060,197)	(65,539,276)		(65,539,276)
	Investment Return, net of expenses	_	59,949,870	 68,644,500	_	133,529,299
	Total Changes		64,438,317	64,653,868		129,538,667
3.	Total as of June 30, $2004 = (1) + (2)$	\$	1,305,994,931	\$ 1,443,823,882	\$	1,476,158,019
4.	Expected Value as of June 30, 2005	\$	1,347,535,619	\$ 1,487,560,030	\$	1,452,353,234
5.	Gain/(Loss) = (3) - (4)	\$	(41,540,688)	\$ (43,736,148)	\$	23,804,785
6.	Rate of Return		4.82%	4.98%		9.93%

EXHIBIT 2.5 – HISTORICAL RETURNS ON SYSTEM ASSETS

NET RETURN ON ASSETS vs. INCREASE IN CONSUMER PRICE INDEX						
Year Ended June 30,	Net Return at Market Value	Net Return at Actuarial Value	Increase in Consumer Price Index*			
1988	1.9%		4.0%			
1989	17.6%		5.2%			
1990	10.8%		4.7%			
1991	9.7%		4.7%			
1992	18.5%		3.1%			
1993	13.2%		3.0%			
1994	(0.7)%		2.5%			
1995	17.7%		3.0%			
1996	15.6%		2.8%			
1997	19.9%		2.3%			
1998	18.9%		1.7%			
1999	10.5%		2.0%			
2000	6.4%		3.7%			
2001	(4.3)%		3.3%			
2002	(5.4)%		1.1%			
2003	4.6%		2.1%			
2004	15.7%	2.9%	3.3%			
2005	9.9%	5.0%	2.5%			
18-Year Compound Average	9.7%	3.9%	3.1%			

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

Liabilities

This section focuses on the System'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 System 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 System 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 15 years from the date each new liability is first recognized (item 4 in Exhibit 3.1).

**Total Actuarial Assets** 

Represents the total of all current assets of 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 System. 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, 2005, 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 Actuarial Cost Method, permitted by Government Code Section 31453.5. The Entry Age Normal 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 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 15 years from the date each new liability is first recognized.

#### **Actuarial Gain and Loss**

The difference between the UAAL and the expected UAAL is an actuarial gain or loss. The actuarial gain and loss is comprised of two components: an asset gain and loss (from investment experience different than expected) and a liability gain and 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

ASS	ETS		
1.	Actuarial value of assets	\$	1,443,823,882
2.	Present value of future contributions by members		151,619,642
3.	Present value of future employer contributions for normal cost		256,968,022
4.	Present value of other future employer contributions (UAAL)	_	243,808,038
5.	Total actuarial assets = $(1) + (2) + (3) + (4)$	\$	2,096,219,584
LIA	BILITIES		
6.	Present value of retirement allowances payable to retired members and their survivors	\$	715,318,806
7.	Present value of service retirement allowances payable to presently active members and their survivors		977,181,751
8.	Present value of allowances payable to current and future vested terminated members and their survivors		132,882,723
9.	Present value of disability retirement allowances payable to presently active members and their survivors		70,414,327
10.	Present value of death benefits payable on behalf of presently active members		16,704,329
11.	Present value of members' contributions to be returned upon withdrawal		45,888,697
12.	Special Reserves	_	137,828,951
13.	Total actuarial liabilities = $(6) + (7) + (8) + (9) + (10) + (11) + (12)$	\$	2,096,219,584

## EXHIBIT 3.2 – ACTUARIAL ACCRUED LIABILITY

14. Present value of future benefits (items 6 to 12)	\$	2,096,219,584
15. Present value of future contributions by members and employers = $(2) + (3)$	_	408,587,664
16. Actuarial accrued liability = (14) – (15)	\$	1,687,631,920
17. Actuarial value of assets	_	1,443,823,882
18. Unfunded actuarial accrued liability (UAAL) = (16) – (17)	\$	243,808,038
19. Funded ratio (including Special Reserves) = (17)/(16) * 100%		85.6%

## EXHIBIT 3.3 – ACTUARIAL GAIN AND LOSS

1.	Unfunded actuarial accrued liability as of July 1, 2004			\$	199,599,460
2.	Change due to contributions:				
	(a) Normal cost	\$	48,742,067		
	(b) Interest on (a)		1,988,676		
	(c) Interest on (1)		16,287,316		
	(d) Contributions (member and employer)		(61,548,644)		
	(e) Interest on (d)	_	(1,310,273)		
	(f) Net change = $(a)+(b)+(c)+(d)+(e)$			\$	4,159,142
3.	Expected unfunded actuarial accrued liability = (1)+(2)			\$	203,758,602
4.	Change due to actuarial experience:				
	(a) Actuarial (gain)/loss from liability sources	\$	(1,491,252)		
	(b) Actuarial (gain)/loss from asset sources	-	41,540,688		
	(c) Net change = $(a)+(b)$			_	40,049,436
5.	Unfunded actuarial accrued liability before changes = (1)+(2)+(4)			\$	243,808,038
6.	Change in actuarial assumptions				0
7.	Change in plan provisions				0
8.	Change in actuarial methods			_	0
9.	Unfunded actuarial accrued liability as of June 30, 2005 = $(5)+(6)+(7)+(8)$			\$	243,808,038

#### **Member Contributions**

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

#### **Member Basic Contributions**

Sections 31621.5 and 31621.2 set forth the basis for the determination of the normal rates of contribution for General Plan 5A and Plan 5B members, respectively. Sections 31639.5 and 31639.25 set forth the basis for the normal rates of contribution for Safety Plan 4A and Safety Plan 4B members, respectively. Section 31621.6 sets forth the basis for the determination of the normal rates of contribution for APCD Plan 1 and Plan 2 members.

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 System. 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 System and the following actuarial assumptions:

- 1. Actuarial investment return (8.16%)
- 2. Salary increase (average of 5.50%)
- 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 a 2-year setback.

## **Cost-of-Living Contributions**

The employees do not pay for any of the cost-of-living contribution rates.

A summary of the current average member contribution rates is provided below.

EXHIBIT 4.1 – AVERAGE CURRENT CONTRIBUTION RATES

Average Member Basic Contribution Rates								
General		Sa	fety	APCD				
Plan 5A	Plan 5B	Plan 4A	Plan 4B	Plan 1	Plan 2			
3.42%	7.30%	5.79%	11.98%	4.07%	8.73%			
3.42%	7.29%	5.81%	11.97%	4.07%	8.59%			
	Plan 5A 3.42%	General           Plan 5A         Plan 5B           3.42%         7.30%	General         Sa           Plan 5A         Plan 5B         Plan 4A           3.42%         7.30%         5.79%	General         Safety           Plan 5A         Plan 5B         Plan 4A         Plan 4B           3.42%         7.30%         5.79%         11.98%	General         Safety         AP           Plan 5A         Plan 5B         Plan 4A         Plan 4B         Plan 1           3.42%         7.30%         5.79%         11.98%         4.07%			

Member rates at sample ages are shown below.

EXHIBIT 4.2 – SAMPLE MEMBERS' CURRENT CONTRIBUTION RATES

	Sample Member Basic Contribution Rates							
	Gen	General		Safety		APCD		
Entry Age	Plan 5A	Plan 5B	Plan 4A	Plan 4B	Plan 1	Plan 2		
25	3.26%	6.53%	5.74%	11.48%	3.83%	7.67%		
35	3.55%	7.09%	6.35%	12.71%	4.13%	8.27%		
54	4.53%	9.06%	7.72%	15.45%	5.21%	10.41%		

The following pages set forth the complete set of members' contribution. The interest rate, mortality table, inflation rate are indicated on the bottom of the tables.

## **Exhibit 4.3 – General Members' Contribution Rates**

(expressed as a percentage of monthly compensation)

## **RECOMMENDED - SECTION 31676.12**

	Recommended	Recommended
	Plan5A - Section 31676.12	Plan 5B - Section 31676.12
Entry Age	FAS 1 - Half Rates	FAS 1 - Full Rates
20	3.20%	6.39%
21	3.21	6.41
22	3.22	6.43
23	3.23	6.46
24	3.25	6.49
25	3.26	6.53
26	3.28	6.56
27	3.30	6.61
28	3.33	6.65
29	3.35	6.71
30	3.38	6.76
31	3.41	6.82
32	3.44	6.88
33	3.48	6.95
34	3.51	7.02
35	3.55	7.09
36	3.59	7.17
37	3.63	7.25
38	3.67	7.33
39	3.71	7.42
40	3.75	7.51
41	3.80	7.60
42	3.85	7.70
43	3.90	7.79
44	3.95	7.89
45	4.00	8.00
46	4.05	8.10
47	4.11	8.21
48	4.16	8.33
49	4.22	8.44
50	4.28	8.56
51	4.34	8.68
52	4.40	8.81
53	4.47	8.93
54	4.53	9.06
55	4.60	9.20
56	4.67	9.34
57	4.74	9.48
58	4.81	9.62
59 & over	4.89	9.77
Interest:	8.16%	
Inflation:	4.50%	
Mortality:	94 GA (Male, -3)	94 GA (Male, -3)

## EXHIBIT 4.4 – SAFETY MEMBERS' CONTRIBUTION RATES

(expressed as a percentage of monthly compensation)

## **RECOMMENDED SECTION 31664.2**

	Recommended	Recommended
	Plan 4A - Section	Plan 4B - Section
	31664.2	31664.2
Entry Age	FAS 1 – Half Rates	FAS 1 - Full Rates
20	5.45%	10.90%
21	5.51	11.01
22	5.57	11.13
23	5.62	11.25
24	5.68	11.37
25	5.74	11.48
26	5.80	11.60
27	5.86	11.72
28	5.92	11.84
29	5.98	11.96
30	6.04	12.08
31	6.10	12.20
32	6.16	12.33
33	6.23	12.45
34	6.29	12.58
35	6.35	12.71
36	6.42	12.84
37	6.48	12.97
38	6.55	13.10
39	6.61	13.23
40	6.68	13.36
41	6.75	13.49
42	6.81	13.63
43	6.88	13.76
44	6.95	13.89
45	7.01	14.03
46	7.08	14.16
47	7.15	14.30
48	7.22	14.45
49	7.30	14.60
50	7.38	14.76
51	7.46	14.92
52	7.54	15.08
53	7.63	15.26
54 & over	7.72	15.45
Interest:	8.16%	
Inflation:	4.50%	
Mortality:	94 GA (Male, -2)	94 GA (Male, -2)

## EXHIBIT 4.5 – APCD MEMBERS' CONTRIBUTION RATES

(expressed as a percentage of monthly compensation)

## **RECOMMENDED SECTION 31676.15**

	Recommended	Recommended
	Plan 1 - Section	
	31676.15	Plan 2 - Section 31676.15
Entry Ago	FAS 1 – Half Rates	
Entry Age		FAS 1 - Full Rates
20	3.77%	7.55%
21	3.78	7.56
22	3.79	7.58
23	3.80	7.61
24	3.82	7.64
25	3.83	7.67
26	3.85	7.71
27	3.88	7.75
28	3.90	7.80
29	3.93	7.85
30	3.96	7.91
31	3.99	7.98
32	4.02	8.04
33	4.06	8.11
34	4.10	8.19
35	4.13	8.27
36	4.18	8.35
37	4.22	8.44
38	4.26	8.53
39	4.31	8.62
40	4.36	8.72
41	4.41	8.82
42	4.46	8.92
43	4.51	9.03
44	4.57	9.14
45	4.63	9.25
46	4.68	9.37
47	4.74	9.49
48	4.80	9.61
49	4.87	9.73
50	4.93	9.86
51	5.00	9.99
52	5.07	10.13
53	5.14	10.27
54 & over	5.21	10.41
Interest:	8.16%	8.16%
Inflation:	4.50%	
Mortality:	94 GA (Male, -3)	94 GA (Male, -3)
_ · ··· · · · · · · · · · · · ·	(, 0)	(, 0)

#### **Employer Contributions**

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

## **Employer Contribution rates**

Employer contributions have been determined under the Entry Age Normal Actuarial Cost Method, permitted by Government Code Section 31453.5. The Entry Age Normal 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 15 years from the date each new liability is first recognized.

During the year, the calculated County contribution rate increased from 18.11 to 19.78%, an increase of 1.67%. The increase was mainly the result of the return on the actuarial value of assets of 5.0%, short of the actuarial assumption of 8.16%.

The contribution rates reflect the recommended current economic and noneconomic assumptions. The recommended rates utilize the recommended actuarial assumptions as outlined in our experience study report as of June 30, 2003.

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.

The table below summarizes the significant changes in unfunded actuarial accrued liabilities and employer contribution rates since the last valuation.

EXHIBIT 5.1 - CHANGE IN UNFUNDED ACTUARIAL ACCRUED LIABILITIES AND CONTRIBUTION RATES

	Unfunded <u>Liability</u>	Contribution Rate
Values as of June 30, 2004	\$199,599,000	18.11%
Interest and contribution adjustment through June 30, 2005	4,159,000	0.40%
Change due to		
Asset losses/(gains)	41,541,000	1.32%
Other losses (demographic experience)	(1,491,000)	(0.05)%
Total changes	44,209,000	1.67%
Values as of June 30, 2005	\$243,808,000	19.78%

**EXHIBIT 5.2 – CURRENT TOTAL EMPLOYER CONTRIBUTION RATES** 

TOTAL EMPLOYER CONTRIBUTION RATES – CURRENT									
	GENERAL			SAFETY	SAFETY & PROBATION	APCD			
	Plan 5A	Plan 2	Plan 5B	Plan 4A	Plan 4B	Plan 1	Plan 2		
Total	14.36%	7.69%	14.38%	30.82%	27.68%	16.21%	17.30%		

Recommended Average Rate for Total Group:

18.11%

#### EXHIBIT 5.3 – RECOMMENDED EMPLOYER CONTRIBUTION RATES

## NORMAL COST AND UAAL RATE BREAKDOWN

TOTAL EMPLOYER CONTRIBUTION RATES – RECOMMENDED									
	GENERAL			SAFETY	SAFETY & PROBATION	APCD			
	Plan 5A	Plan 2	Plan 5B	Plan 4A	Plan 4B	Plan 1	Plan 2		
Normal Cost	9.31%	2.79%	9.43%	18.96%	15.76%	11.32%	11.23%		
UAAL	6.20	6.20	6.20	14.77	14.77	7.04	7.04		
Total	15.51%	8.99%	15.63%	33.73%	30.53%	18.36%	18.27%		

Recommended Average Rate for Total Group:

Normal Cost UAAL 8.40% Total 19.78%

## EXHIBIT 5.4 – RECOMMENDED EMPLOYER CONTRIBUTION RATES

## BASIC AND COST OF LIVING RATE BREAKDOWN

TOTAL EMPLOYER CONTRIBUTION RATES – RECOMMENDED									
	GENERAL			SAFETY	SAFETY & PROBATION	APCD			
	Plan 5A	Plan 2	Plan 5B	Plan 4A	Plan 4B	Plan 1	Plan 2		
Basic	10.29%	6.51%	9.72%	22.32%	18.55%	12.69%	11.93%		
COL	5.22%	2.48%	5.91%	11.41%	11.98%	5.67%	6.34%		
Total	15.51%	8.99%	15.63%	33.73%	30.53%	18.36%	18.27%		

Recommended Average Rate for Total Group:

Basic 12.62% COL 7.16% Total 19.78%

## Recommendations

We recommend that the current inflation rate assumption remain at 4.50% 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, 2005 as shown in the prior sections. These rates, which reflect the current economic assumptions, are based on the Entry Age Normal Actuarial Cost Method and the actuarial value of assets, with an unfunded Actuarial Accrued Liability amortized over 15 years from the date each new liability is first recognized.

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

#### **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 System's assets and liabilities, using the same actuarial method used for funding the System.

## 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 System.

# 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.

### **Actuary's Certification Letter**

October 4, 2005

Board of Retirement Santa Barbara County Employees' Retirement System 3916 State Street, Suite 210 Santa Barbara, CA 93105

Re: Actuarial Certification of the Santa Barbara County Employees' Retirement System

Members of the Board:

Mellon Consultants, Inc. is the Consulting Actuary for the Santa Barbara County Employees' Retirement System. The date of the most recent actuarial valuation was June 30, 2005. In each actuarial study, we conduct an examination of all participant data for reasonableness.

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 payroll to amortize the unfunded actuarial accrued liability (UAAL). As of June 30, 2005, the amortization period is 15 years. The funding objective of the Plan is to establish contribution rates which, over time, will remain as a level percentage of payroll 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. The System'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, 2003 to establish the validity of these assumptions. The assumptions used in the most recent valuation produce results which, 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, 2006.

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,

Michael Moehle, F.S.A., E.A., M.A.A.A.

Principal and Consulting Actuary

nika wyle

Eva Yum, F.S.A., E.A.

Iva y

**Director and Consulting Actuary** 

EXHIBIT 7.1 - GASB 25 Schedule of Funding Progress (In Thousands)

Actuarial Valuation <u>Date</u>	Actuarial Value of <u>Assets</u>	Actuarial Accrued Liability (AAL)*	Unfunded AAL (UAAL)	Funded <u>Ratio</u>	Covered <u>Payroll</u>	UAAL as a Percent of Covered <u>Payroll</u>
1/1/95	\$ 562,861	\$ 643,453	\$ 80,592	87.5%	\$ 140,571	57.3%
1/1/96	\$ 624,823	\$ 711,869	\$ 87,046	87.8%	\$ 154,120	56.5%
1/1/97	\$ 693,301	\$ 758,772	\$ 65,471	91.4%	\$ 159,906	40.9%
1/1/98	\$ 799,539	\$ 873,624	\$ 74,085	91.5%	\$ 171,602	43.2%
1/1/99	\$ 938,295	\$ 950,205	\$ 11,910	98.7%	\$ 184,291	6.5%
1/1/00	\$ 1,068,357	\$ 1,067,377	\$ (980)	100.1%	\$ 199,448	(0.5)%
1/1/01	\$ 1,171,138	\$ 1,145,519*	\$(25,619)	102.2%	\$ 219,739	(11.7)%
1/1/03	\$ 1,295,956	\$ 1,363,605	\$ 67,649	95.0%	\$ 251,834	26.9%
6/30/03	\$ 1,346,665	\$1,454,864	\$108,199	92.6%	\$ 257,237	42.1%
6/30/04	\$ 1,379,170	\$1,578,769	\$199,599	87.4%	\$266,960	74.8%
6/30/05	\$1,443,824	\$1,687,632	\$243,808	85.6%	\$267,785	91.0%

<sup>\*</sup> Excluding benefit improvements.

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

Year Ended	Annual Required Contribution	Percentage Contributed
12/31/94	\$ 24,678	100%
12/31/95	\$ 27,664	100%
12/31/96	\$ 27,114	100%
12/31/97	\$ 31,692	100%
12/31/98	\$ 28,414	100%
12/31/99	\$ 30,484	100%
12/31/00	\$ 29,272	100%
12/31/01	\$ 27,155	100%
12/31/02	\$ 32,999	100%
6/30/03*	\$ 9,118	100%
6/30/04	\$ 39,335	100%
6/30/05	\$ 46,721	100%

<sup>\*</sup> January 1, 2003 to June 30, 2003

EXHIBIT 7.3 - ACTUARIAL ANALYSIS OF FINANCIAL EXPERIENCE (DOLLARS IN THOUSANDS)

	Actu	ıarial (Gains)/Los				
Plan Year <u>Ending</u>	Asset <u>Sources</u>	Liability Sources	<u>Total</u>	Changes in <u>Plan Provisions</u>	Changes in Assumptions/ <u>Methods</u>	Total (Gain)/Loss
6/30/2003	(10,810)	17,954	7,144	0	23,438	30,582
6/30/2004	62,258	24,947	87,205	0	0	87,205
6/30/2005	41,541	(1,491)	40,050	0	0	40,050

## EXHIBIT 7.4 - RETIREE AND BENEFICIARY EXPERIENCE

Pla Ye <u>End</u>	ar Be	At ginning A f Year	t End of <u>Year</u>	•	in Retiree	Average Annual llowances
6/30/2	2003	2,275	2,345	47,280,000	10.50%	20,160
6/30/2	2004	2,345	2,440	52,268,000	10.55%	21,420
6/30/2	2005	2,440	2,561	58,824,000	12.54%	22,969

# EXHIBIT 7.5 - SOLVENCY TEST (DOLLARS IN THOUSANDS)

	Actuarial Accrued Liabilities For					Portion of Accrued Liabilities Covered by Valuation Assets		
Valuation <u>Date</u>	(1) Active Member Contributions	(2) Retirees and Beneficiaries	(3) Active Members	Actuarial Accrued <u>Liabilities</u>	Valuation <u>Assets</u>	<u>(1)</u>	<u>(2)</u>	(3)
6/30/2003	105,570	572,737	776,557	1,454,864	1,346,665	100%	100%	86.1%
6/30/2004	115,530	633,082	830,157	1,578,769	1,379,170	100%	100%	76.0%
6/30/2005	125,040	715,319	847,273	1,687,632	1,443,824	100%	100%	71.2%

#### **Actuarial Assumptions**

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

To carry out an actuarial valuation of the assets and liabilities of the System, 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, 2003 actuarial valuation, we compared the expected number of terminations from active service to the number actually experienced during the two and one half-year period beginning January 1, 2001 and ending June 30, 2003. 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 System, 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 System'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 System'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 System's present obligations) will be between 4.00% and 5.00%.

Based on the information presented in the economic assumption section, we recommend that the current inflation rate assumption remain at 4.50%.

## **Economic Assumptions (continued)**

#### **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 System's funds. To develop the individual real rates of return, we utilize various empirical studies. By applying the results of these studies to the System'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 System'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 System'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	ALLOC AS OF JUN	SET CATION NE 30, 2005 T VALUE)	IBBOTSON- SINQUEFIELD REAL RATES OF RETURN	TARGET WEIGHTED				
CLASS	TARGET	ACTUAL	(1926 - 2004)	RETURN				
Equity Fixed	68%	67%	7.2% 2.6%	4.90% 0.70%				
Income/Bonds	27%	25%						
Real Estate	4%	4%	4.0%	0.16%				
Short Term	<u>1%</u>	<u>4%</u>	0.7%	0.01%				
Total	100%	100%		5.77%				
*Includes International Equity and Fixed Income								

## **Economic Assumptions (continued)**

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

Applying the System's target asset allocation to the real rates of return in the table produces a real rate of return of approximately 5.77% (assuming an equal proportion of government and corporate bonds and a return of 4% on real estate). 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 of 3.50% provides a reasonable degree of conservatism when used with a 4.50% inflation rate. Thus, we feel that the 8.16% investment return assumption 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.

## Section 8: Summary of Actuarial Assumptions

The Entry Age Normal Actuarial Cost Method was used in conjunction with the following actuarial assumptions. The UAAL is being amortized over 15 years from the date each new liability is first recognized.

1. Interest: 8.00% per annum, compounded biannually.

2. Interest Credited to Employee Accounts: 8.00% per annum, compounded biannually.

3. Inflation: 4.50% per annum.

4. Asset Valuation: Smoothed actuarial value.

5. Salary Scale: See Exhibit 8.7

6. Spouses and Dependents: 80% 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 & Safety Males - 1994 Group Annuity Table for Males, set back two years.

- General & Safety Females 1994 Group Annuity Table for Males, set forward one year.
- 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, set back two years.

- 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, setback two years.

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 members; 55 for Safety members.

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

Age	Withdrawal	Ordinary <u>Death</u>	Ordinary <u>Disability</u>	<u>Service</u>	Death While <u>Eligible</u>	Duty <u>Death</u>	Duty <u>Disability</u>	Terminated <u>Vested</u>
20	0.18975	0.00011	0.00000	0.00000	0.00000	0.00013	0.00011	0.00000
21	0.17825	0.00011	0.00000	0.00000	0.00000	0.00013	0.00011	0.00000
22	0.16675	0.00011	0.00000	0.00000	0.00000	0.00013	0.00011	0.00000
23	0.15525	0.00011	0.00000	0.00000	0.00000	0.00013	0.00011	0.00000
24	0.14375	0.00011	0.00000	0.00000	0.00000	0.00013	0.00011	0.00000
25	0.13800	0.00017	0.00000	0.00000	0.00006	0.00013	0.00011	0.00000
26	0.13225	0.00017	0.00000	0.00000	0.00006	0.00013	0.00011	0.00000
27	0.12363	0.00017	0.00000	0.00000	0.00006	0.00013	0.00011	0.00000
28	0.11500	0.00017	0.00000	0.00000	0.00006	0.00013	0.00011	0.00100
29	0.10638	0.00017	0.00000	0.00000	0.00006	0.00013	0.00011	0.00200
30	0.09775	0.00023	0.00000	0.00000	0.00014	0.00013	0.00022	0.00450
31	0.09200	0.00023	0.00000	0.00000	0.00014	0.00013	0.00022	0.00650
32	0.08625	0.00023	0.00000	0.00000	0.00014	0.00013	0.00022	0.00850
33	0.08050	0.00023	0.00000	0.00000	0.00014	0.00013	0.00022	0.01100
34	0.07475	0.00023	0.00000	0.00000	0.00014	0.00013	0.00022	0.01200
35	0.06900	0.00029	0.00011	0.00000	0.00014	0.00013	0.00033	0.01300
36	0.06325	0.00029	0.00011	0.00000	0.00014	0.00013	0.00044	0.01350
37	0.05865	0.00029	0.00011	0.00000	0.00020	0.00013	0.00055	0.01400
38	0.05520	0.00029	0.00011	0.00000	0.00020	0.00013	0.00066	0.01300
39	0.05175	0.00034	0.00021	0.00000	0.00020	0.00013	0.00077	0.01200
40	0.04945	0.00034	0.00021	0.00000	0.00020	0.00013	0.00088	0.01200
41	0.04715	0.00034	0.00021	0.00000	0.00027	0.00013	0.00099	0.01250
42	0.04485	0.00039	0.00032	0.00000	0.00027	0.00013	0.00121	0.01300
43	0.04140	0.00039	0.00042	0.00000	0.00034	0.00013	0.00132	0.01400
44	0.03795	0.00039	0.00053	0.00000	0.00034	0.00013	0.00143	0.01500
45	0.03450	0.00045	0.00063	0.00000	0.00041	0.00013	0.00165	0.01650
46	0.03220	0.00051	0.00074	0.00000	0.00047	0.00013	0.00176	0.01800
47	0.02990	0.00056	0.00084	0.00000	0.00054	0.00013	0.00187	0.02000
48	0.02875	0.00062	0.00095	0.00000	0.00068	0.00013	0.00198	0.01800
49	0.02760	0.00068	0.00116	0.00000	0.00082	0.00013	0.00209	0.01650
50	0.02645	0.00073	0.00137	0.04500	0.00095	0.00013	0.00220	0.01500
51	0.02530	0.00079	0.00158	0.02500	0.00109	0.00013	0.00242	0.01400
52	0.02415	0.00090	0.00179	0.02500	0.00122	0.00013	0.00264	0.01300
53	0.02300	0.00101	0.00200	0.02500	0.00142	0.00013	0.00275	0.01200
54	0.02185	0.00112	0.00221	0.03000	0.00163	0.00013	0.00286	0.01100
55	0.02070	0.00124	0.00242	0.06000	0.00184	0.00013	0.00308	0.01000
56	0.01955	0.00135	0.00263	0.04000	0.00204	0.00013	0.00330	0.00950
57	0.01840	0.00146	0.00284	0.04500	0.00224	0.00013	0.00341	0.00850
58	0.01725	0.00157	0.00315	0.07000	0.00245	0.00013	0.00352	0.00800
59	0.01610	0.00169	0.00347	0.09000	0.00265	0.00013	0.00374	0.00750
60	0.01495	0.00180	0.00389	0.11000	0.00278	0.00013	0.00385	0.00700
61	0.01380	0.00191	0.00431	0.25000	0.00299	0.00013	0.00407	0.00650
62	0.01265	0.00203	0.00473	0.31000	0.00319	0.00013	0.00418	0.00600
63	0.01150	0.00214	0.00515	0.12000	0.00340	0.00013	0.00440	0.00550
64	0.01150	0.00225	0.00557	0.20000	0.00360	0.00013	0.00462	0.00500
65	0.01150	0.00236	0.00599	0.29000	0.00381	0.00013	0.00000	0.00000
66	0.01150	0.00253	0.00641	0.22000	0.00401	0.00013	0.00000	0.00000
67	0.01150	0.00270	0.00693	0.22000	0.00422	0.00013	0.00000	0.00000
68	0.01150	0.00287	0.00746	0.30000	0.00449	0.00013	0.00000	0.00000
69	0.01150	0.00304	0.00798	0.40000	0.00476	0.00013	0.00000	0.00000
70	0.00000	0.00000	0.00000	1.00000	0.00000	0.00000	0.00000	0.00000

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

	******	Ordinary	Ordinary	g :	Death While	Duty	Duty	Terminated
Age	<u>Withdrawal</u>	<b>Death</b>	<b>Disability</b>	<u>Service</u>	<u>Eligible</u>	<u>Death</u>	<b>Disability</b>	<u>Vested</u>
20	0.17250	0.00010	0.00000	0.00000	0.00000	0.00010	0.00012	0.00000
21	0.16500	0.00010	0.00000	0.00000	0.00000	0.00010	0.00012	0.00000
22	0.15750	0.00010	0.00000	0.00000	0.00000	0.00010	0.00012	0.00000
23	0.14750	0.00010	0.00000	0.00000	0.00000	0.00010	0.00012	0.00000
24	0.13750	0.00010	0.00000	0.00000	0.00000	0.00010	0.00012	0.00000
25	0.13250	0.00010	0.00018	0.00000	0.00008	0.00010	0.00012	0.00000
26	0.13000	0.00010	0.00018	0.00000	0.00008	0.00010	0.00012	0.00000
27	0.12500	0.00020	0.00018	0.00000	0.00008	0.00010	0.00012	0.00440
28	0.12000	0.00020	0.00018	0.00000	0.00008	0.00010	0.00012	0.00660
29	0.11500	0.00020	0.00018	0.00000	0.00008	0.00010	0.00012	0.00880
30	0.11000	0.00020	0.00018	0.00000	0.00008	0.00010	0.00012	0.01100
31	0.10500	0.00020	0.00018	0.00000	0.00008	0.00010	0.00012	0.01320
32	0.10000	0.00020	0.00035	0.00000	0.00008	0.00010	0.00012	0.01540
33	0.09500	0.00020	0.00035	0.00000	0.00008	0.00010	0.00012	0.01760
34	0.09100	0.00020	0.00035	0.00000	0.00008	0.00010	0.00012	0.01870
35	0.08700	0.00030	0.00050	0.00000	0.00008	0.00010	0.00024	0.01980
36	0.08200	0.00030	0.00050	0.00000	0.00008	0.00010	0.00024	0.01980
37	0.07600	0.00030	0.00050	0.00000	0.00008	0.00010	0.00036	0.01980
38	0.06900	0.00030	0.00050	0.00000	0.00008	0.00010	0.00036	0.01980
39	0.06200	0.00030	0.00050	0.00000	0.00008	0.00010	0.00048	0.01980
40	0.05500	0.00040	0.00068	0.00000	0.00008	0.00010	0.00060	0.02035
41	0.05000	0.00040	0.00085	0.00000	0.00008	0.00010	0.00072	0.02090
42	0.04500	0.00040	0.00085	0.00000	0.00008	0.00010	0.00084	0.02090
43	0.04000	0.00040	0.00117	0.00000	0.00008	0.00010	0.00096	0.02090
44	0.03600	0.00040	0.00135	0.00000	0.00008	0.00010	0.00096	0.02090
45	0.03200	0.00050	0.00153	0.00000	0.00016	0.00010	0.00108	0.02090
46	0.03000	0.00050	0.00168	0.00000	0.00016	0.00010	0.00108	0.02090
47	0.02900	0.00050	0.00168	0.00000	0.00016	0.00010	0.00120	0.02035
48	0.02800	0.00060	0.00185	0.00000	0.00024	0.00010	0.00132	0.02035
49	0.02700	0.00060	0.00203	0.00000	0.00024	0.00010	0.00144	0.01980
50	0.02600	0.00060	0.00219	0.02000	0.00032	0.00010	0.00144	0.01925
51	0.02500	0.00060	0.00236	0.01200	0.00040	0.00010	0.00156	0.01815
52	0.02400	0.00070	0.00252	0.01200	0.00048	0.00010	0.00168	0.01650
53	0.02300	0.00080	0.00252	0.01300	0.00056	0.00010	0.00180	0.01430
54	0.02200	0.00090	0.00270	0.01300	0.00064	0.00010	0.00192	0.01100
55	0.02100	0.00100	0.00286	0.05000	0.00072	0.00010	0.00204	0.00880
56	0.02000	0.00110	0.00305	0.03000	0.00080	0.00010	0.00216	0.00660
57	0.01900	0.00120	0.00319	0.02500	0.00088	0.00010	0.00216	0.00550
58	0.01800	0.00140	0.00354	0.03500	0.00096	0.00010	0.00228	0.00440
59	0.01700	0.00160	0.00387	0.04000	0.00104	0.00010	0.00240	0.00440
60	0.01650	0.00180	0.00422	0.06000	0.00112	0.00010	0.00252	0.00440
61	0.01550	0.00200	0.00458	0.10000	0.00120	0.00010	0.00264	0.00440
62	0.01500	0.00220	0.00506	0.20000	0.00128	0.00010	0.00276	0.00440
63	0.01500	0.00240	0.00557	0.15000	0.00136	0.00010	0.00288	0.00440
64	0.01500	0.00260	0.00608	0.15000	0.00144	0.00010	0.00300	0.00440
65	0.01500	0.00280	0.00000	0.30000	0.00160	0.00010	0.00000	0.00000
66	0.01500	0.00300	0.00000	0.25000	0.00176	0.00010	0.00000	0.00000
67	0.01500	0.00330	0.00000	0.25000	0.00192	0.00010	0.00000	0.00000
68	0.01500	0.00360	0.00000	0.30000	0.00208	0.00010	0.00000	0.00000
69	0.01500	0.00390	0.00000	0.50000	0.00224	0.00010	0.00000	0.00000
70	0.00000	0.00000	0.00000	1.00000	0.00000	0.00000	0.00000	0.00000

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

Age	<u>Withdrawal</u>	Ordinary <u>Death</u>	Ordinary <u>Disability</u>	Service	Death While Eligible	Duty <u>Death</u>	Duty Disability	Terminated <u>Vested</u>
20	0.07000	0.00007	0.00000	0.00000	0.00000	0.00006	0.00014	0.00000
22	0.06700	0.00007	0.00000	0.00000	0.00000	0.00006	0.00014	0.00260
22	0.06400	0.00007	0.00000	0.00000	0.00000	0.00006	0.00014	0.00585
23	0.06100	0.00007	0.00000	0.00000	0.00000	0.00006	0.00014	0.00910
24	0.05800	0.00007	0.00000	0.00000	0.00000	0.00006	0.00018	0.01235
25	0.05500	0.00015	0.00004	0.00000	0.00006	0.00013	0.00027	0.01560
26	0.05200	0.00015	0.00004	0.00000	0.00006	0.00013	0.00036	0.01885
27	0.04900	0.00015	0.00004	0.00000	0.00006	0.00013	0.00049	0.02145
28	0.04500	0.00015	0.00004	0.00000	0.00006	0.00013	0.00063	0.02405
29	0.04100	0.00015	0.00004	0.00000	0.00006	0.00013	0.00077	0.02340
30	0.03800	0.00015	0.00004	0.00000	0.00006	0.00013	0.00094	0.02275
31	0.03500	0.00015	0.00007	0.00000	0.00006	0.00013	0.00112	0.02145
32	0.03200	0.00015	0.00010	0.00000	0.00012	0.00013	0.00130	0.01950
33	0.02900	0.00015	0.00017	0.00000	0.00012	0.00013	0.00153	0.01690
34	0.02700	0.00015	0.00025	0.00000	0.00012	0.00013	0.00175	0.01365
35	0.02500	0.00015	0.00032	0.00000	0.00012	0.00013	0.00202	0.01235
36	0.02300	0.00015	0.00038	0.00000	0.00018	0.00013	0.00234	0.01170
37	0.02100	0.00015	0.00046	0.00000	0.00024	0.00013	0.00265	0.01105
38	0.01900	0.00015	0.00052	0.00000	0.00024	0.00013	0.00297	0.01040
39	0.01700	0.00015	0.00059	0.00000	0.00030	0.00013	0.00329	0.00975
40	0.01500	0.00023	0.00066	0.00000	0.00036	0.00020	0.00360	0.00910
41	0.01300	0.00023	0.00074	0.00000	0.00036	0.00020	0.00391	0.00845
42	0.01100	0.00023	0.00081	0.00000	0.00036	0.00020	0.00427	0.00780
43	0.00900	0.00023	0.00084	0.00000	0.00042	0.00020	0.00464	0.00650
44	0.00700	0.00023	0.00084	0.00000	0.00042	0.00020	0.00499	0.00520
45	0.00600	0.00030	0.00088	0.00660	0.00048	0.00026	0.00540	0.00455
46	0.00500	0.00030	0.00088	0.00880	0.00054	0.00033	0.00581	0.00390
47	0.00450	0.00030	0.00091	0.01100	0.00054	0.00039	0.00621	0.00325
48	0.00400	0.00038	0.00091	0.01100	0.00060	0.00045	0.00661	0.00260
49	0.00400	0.00038	0.00094	0.01100	0.00060	0.00052	0.00702	0.00195
50	0.00400	0.00045	0.00094	0.05500	0.00066	0.00058	0.00742	0.00130
51	0.00400	0.00052	0.00098	0.04400	0.00072	0.00065	0.00788	0.00104
52	0.00400	0.00060	0.00098	0.04400	0.00078	0.00071	0.00833	0.00091
53	0.00400	0.00068	0.00102	0.03850	0.00084	0.00078	0.00877	0.00078
54	0.00400	0.00075	0.00105	0.03850	0.00090	0.00084	0.00922	0.00065
55	0.00000	0.00082	0.00000	0.10000	0.00096	0.00091	0.00000	0.00000
56	0.00000	0.00090	0.00000	0.07500	0.00102	0.00097	0.00000	0.00000
57	0.00000	0.00097	0.00000	0.07500	0.00108	0.00104	0.00000	0.00000
58	0.00000	0.00105	0.00000	0.15000	0.00114	0.00117	0.00000	0.00000
59	0.00000	0.00112	0.00000	0.40000	0.00120	0.00130	0.00000	0.00000
60	0.00000	0.00000	0.00000	1.00000	0.00000	0.00000	0.00000	0.00000

EXHIBIT 8.4 – YEARS OF LIFE EXPECTANCY AFTER SERVICE RETIREMENT

	GEI	NERAL	SA	FETY		GEN	ERAL	SA	FETY
<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
50	32.55	33.94	32.55	33.94	81	8.88	9.14	8.88	9.14
51	31.62	32.99	31.62	32.99	82	8.37	8.58	8.37	8.58
52	30.69	32.05	30.69	32.05	83	7.89	8.05	7.89	8.05
53	29.77	31.11	29.77	31.11	84	7.44	7.54	7.44	7.54
54	28.85	30.17	28.85	30.17	85	7.00	7.06	7.00	7.06
55	27.95	29.24	27.95	29.24	86	6.59	6.59	6.59	6.59
56	27.04	28.31	27.04	28.31	87	6.19	6.15	6.19	6.15
57	26.15	27.40	26.15	27.40	88	5.80	5.73	5.80	5.73
58	25.27	26.49	25.27	26.49	89	5.43	5.34	5.43	5.34
59	24.39	25.59	24.39	25.59	90	5.07	4.98	5.07	4.98
60	23.52	24.70	23.52	24.70	91	4.73	4.64	4.73	4.64
61	22.67	23.82	22.67	23.82	92	4.42	4.33	4.42	4.33
62	21.83	22.96	21.83	22.96	93	4.13	4.04	4.13	4.04
63	21.00	22.11	21.00	22.11	94	3.86	3.76	3.86	3.76
64	20.18	21.28	20.18	21.28	95	3.61	3.51	3.61	3.51
65	19.39	20.46	19.39	20.46	96	3.37	3.28	3.37	3.28
66	18.60	19.65	18.60	19.65	97	3.16	3.06	3.16	3.06
67	17.84	18.86	17.84	18.86	98	2.98	2.86	2.98	2.86
68	17.10	18.08	17.10	18.08	99	2.81	2.67	2.81	2.67
69	16.37	17.31	16.37	17.31	100	2.66	2.50	2.66	2.50
70	15.66	16.54	15.66	16.54	101	2.52	2.34	2.52	2.34
71	14.97	15.78	14.97	15.78	102	2.39	2.19	2.39	2.19
72	14.29	15.04	14.29	15.04	103	2.26	2.06	2.26	2.06
73	13.63	14.31	13.63	14.31	104	2.15	1.94	2.15	1.94
74	12.98	13.60	12.98	13.60	105	2.04	1.83	2.04	1.83
75	12.34	12.90	12.34	12.90	106	1.93	1.74	1.93	1.74
76	11.72	12.22	11.72	12.22	107	1.84	1.66	1.84	1.66
77	11.12	11.57	11.12	11.57	108	1.75	1.59	1.75	1.59
78	10.53	10.93	10.53	10.93	109	1.68	1.54	1.68	1.54
79	9.96	10.31	9.96	10.31	110	1.62	1.50	1.62	1.50
80	9.40	9.71	9.40	9.71	<u> </u>				

1994 GA (x-2, y+1) for General Members

1994 GA (x-2, y+1) 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 for General members

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

Age	Years of Life Expectancy	<u>Age</u>	Years of Life Expectancy	Age	Years of Life Expectancy
20	51.12	51	24.38	81	7.41
21	50.20	52	23.59	82	7.00
22	49.29	53	22.80	83	6.63
23	48.39	54	22.03	84	6.27
24	47.48	55	21.26	85	5.94
25	46.58	56	20.50	86	5.63
26	45.68	57	19.77	87	5.34
27	44.79	58	19.06	88	5.06
28	43.89	59	18.40	89	4.80
29	43.01	60	17.78	90	4.55
30	42.12	61	17.20	91	4.31
31	41.24	62	16.64	92	4.09
32	40.36	63	16.11	93	3.87
33	39.48	64	15.59	94	3.66
34	38.61	65	15.08	95	3.46
35	37.74	66	14.58	96	3.26
36	36.88	67	14.09	97	3.07
37	36.02	68	13.61	98	2.89
38	35.16	69	13.13	99	2.71
39	34.31	70	12.66	100	2.54
40	33.46	71	12.18	101	2.37
41	32.61	72	11.70	102	2.20
42	31.77	73	11.21	103	2.04
43	30.93	74	10.72	104	1.88
44	30.09	75	10.22	105	1.72
45	29.26	76	9.73	106	1.55
46	28.43	77	9.24	107	1.38
47	27.61	78	8.75	108	1.21
48	26.80	79	8.28	109	1.04
49	25.99	80	7.83	110	.88
50	25.18				

1981 Disability (x-2) for Safety members

EXHIBIT 8.7 – RATIO OF CURRENT COMPENSATION TO COMPENSATION ANTICIPATED AT RETIREMENT

<u>Age</u>	General <u>Members</u>	Safety <u>Members</u>	<u>Age</u>	General <u>Members</u>	Safety <u>Members</u>
20	0.046	0.100	46	0.305	0.469
21	0.051	0.106	47	0.322	0.499
22	0.055	0.113	48	0.340	0.530
23	0.061	0.119	49	0.360	0.563
24	0.067	0.126	50	0.380	0.598
25	0.073	0.134	51	0.401	0.634
26	0.079	0.142	52	0.423	0.671
27	0.086	0.151	53	0.445	0.711
28	0.093	0.160	54	0.469	0.752
29	0.101	0.170	55	0.493	0.794
30	0.109	0.180	56	0.519	0.837
31	0.118	0.192	57	0.546	0.875
32	0.127	0.203	58	0.574	0.915
33	0.136	0.216	59	0.602	0.956
34	0.146	0.230	60	0.632	1.000
35	0.156	0.244	61	0.663	
36	0.167	0.258	62	0.695	
37	0.178	0.274	63	0.729	
38	0.189	0.291	64	0.764	
39	0.202	0.309	65	0.800	
40	0.215	0.328	66	0.837	
41	0.228	0.348	67	0.875	
42	0.242	0.369	68	0.915	
43	0.257	0.391	69	0.956	
44	0.272	0.415	70	1.000	
45	0.288	0.441			

Note: Salary scale assumption reflects 4.50% for inflation and graded merit and longevity.

The June 30, 2005 actuarial valuation of the System was based on the following data. For comparison, we also show a summary of the June 30, 2004 statistical information.

**EXHIBIT 9.1 - SUMMARY OF RETIRED MEMBERSHIP** 

	June 30, 2004	June 30, 2005	Percentage Change During the Period
GENERAL and APCD			
Number	1,941	2,021	4.12%
Basic Annual Allowance	\$ 24,092,000	\$ 26,826,000	11.35%
Average Basic Monthly Allowance	\$ 1,034	\$ 1,106	6.96%
Total Annual Allowance	\$ 31,927,000	\$ 35,373,000	10.79%
Average Total Monthly Allowance	\$ 1,371	\$ 1,459	6.42%
SAFETY			
Number	499	540	8.22%
Basic Annual Allowance	\$ 16,515,000	\$ 18,960,000	14.80%
Average Basic Monthly Allowance	\$ 2,758	\$ 2,926	6.09%
Total Annual Allowance	\$ 20,341,000	\$ 23,451,000	15.29%
Average Total Monthly Allowance	\$ 3,397	\$ 3,619	6.54%
TOTAL			
Number	2,440	2,561	4.96%
Basic Annual Allowance	\$ 40,607,000	\$ 45,786,000	12.75%
Average Basic Monthly Allowance	\$ 1,387	\$ 1,490	7.43%
Total Annual Allowance	\$ 52,268,000	\$ 58,824,000	12.54%
Average Total Monthly Allowance	\$ 1,785	\$ 1,914	7.23%
Average Age	69.77	69.62	(0.21)%

**EXHIBIT 9.2 - SUMMARY OF INACTIVE MEMBERSHIP** 

	<u>June 30, 2004</u>	<u>June 30, 2005</u>	Percentage Change During the Period
TOTAL			
Number*	717	757	5.58%

<sup>\*</sup>Excludes pending withdrawals.

**EXHIBIT 9.3 - SUMMARY OF ACTIVE MEMBERSHIP** 

	June 30, 2004	June 30, 2005	Percentage Change During the Period
Number	4,503	4,505	0.04%
Annual Payroll*	\$ 266,961,000	\$ 267,786,000	0.31%
Average Monthly Salary	\$ 4,940	\$ 4,953	0.26%
Average Age	44.26	44.38	0.27%
Average Service	10.17	10.32	1.47%

**EXHIBIT 9.4 - SUMMARY OF ACTIVE MEMBERSHIP** 

	June 30, 2004	June 30, 2005	Percentage Change During <u>the Period</u>
GENERAL PLAN 5A			
Number	1,454	1,337	(8.05)%
Annual Payroll <sup>*</sup>	\$ 88,872,000	\$ 83,051,000	(6.55)%
Average Monthly Salary	\$ 5,094	\$ 5,176	1.61%
Average Age	49.89	50.46	1.14%
Average Service	16.73	17.62	5.32%
GENERAL PLAN 2			
Number	36	32	(11.11)%
Annual Payroll*	\$ 1,885,000	\$ 1,691,000	(10.29)%
Average Monthly Salary	\$ 4,363	\$ 4,404	0.94%
Average Age	48.69	50.66	4.05%
Average Service	14.64	16.28	11.20%
GENERAL PLAN 5B			
Number	2,012	2,133	6.01%
Annual Payroll <sup>*</sup>	\$ 104,907,000	\$ 110,718,000	5.54%
Average Monthly Salary	\$ 4,345	\$ 4,326	(0.44)%
Average Age	41.39	41.70	0.75%
Average Service	4.61	5.00	8.46%
SAFETY PLAN 4A			
Number	398	380	(4.52)%
Annual Payroll <sup>*</sup>	\$ 32,799,000	\$ 32,099,000	(2.13)%
Average Monthly Salary	\$ 6,867	\$ 7,039	2.50%
Average Age	46.03	46.66	1.37%
Average Service	18.38	18.86	2.61%
SAFETY PLAN 4B			
Number	546	567	3.85%
Annual Payroll <sup>*</sup>	\$ 34,797,000	\$ 36,316,000	4.37%
Average Monthly Salary	\$ 5,311	\$ 5,337	0.49%
Average Age	37.86	37.81	(0.13)%
Average Service	6.71	6.79	1.19%
APCD PLAN 1			
Number	38	37	(2.63)%
Annual Payroll <sup>*</sup>	\$ 2,652,000	\$ 2,758,000	4.00%
Average Monthly Salary	\$ 5,816	\$ 6,212	6.81%
Average Age	49.76	51.05	2.59%
Average Service	15.50	16.43	6.00%
APCD PLAN 2			
Number	19	19	0.00%
Annual Payroll*	\$ 1,049,000	\$ 1,153,000	9.91%
Average Monthly Salary	\$ 4,601	\$ 5,057	9.91%
Average Age	44.68	45.32	1.43%
Average Service	4.21	5.58	32.54%

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

## EXHIBIT 9.5 - AGE AND SERVICE DISTRIBUTION WITH ANNUAL AVERAGE SALARY OF ACTIVE GENERAL MEMBERS AS OF JUNE 30, 2005

#### PLAN 5A

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	4	0	0	0	0	0	0	4
	47,303	0	0	0	0	0	0	47,303
30-34	1	1	25	4	0	0	0	31
	32,557	48,945	46,827	45,220	0	0	0	46,228
35-39	4	2	69	29	1	0	0	105
	75,126	48,441	51,946	51,935	34,455	0	0	52,593
40-44	4	2	82	81	25	1	0	195
	62,558	36,075	55,352	59,213	57,189	40,459	0	57,065
45-49	4	2	94	97	75	25	0	297
	43,916	50,905	62,436	62,418	62,673	59,928	0	61,952
50-54	1	1	101	80	58	47	8	296
	56,446	48,945	62,457	62,570	65,413	69,754	54,870	63,954
55-59	2	0	78	81	53	36	26	276
	52,158	0	58,917	67,535	80,210	73,636	69,963	68,447
60-64	0	1	31	33	17	8	12	102
	0	44,348	56,257	69,610	76,933	68,043	71,597	66,635
65-69	0	0	7	8	2	1	1	19
	0	0	51,824	44,883	68,349	47,481	33,886	49,468
70 & Over	0	0	6	1	0	1	4	12
_	0	0	61,878	25,841	0	158,998	66,224	68,417
Tr. 4.1	20	0	402	41.4	221	110	~ 1	1 225
Total	20 55,447	9 45,898	493 57,900	414 62,067	231 67,768	119 69,066	51 66,979	1,337 62,118
	~	*	*	*	,			*

## EXHIBIT 9.6 - AGE AND SERVICE DISTRIBUTION WITH ANNUAL AVERAGE SALARY OF ACTIVE GENERAL MEMBERS AS OF JUNE 30, 2005

PLAN 2

_				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	1	0	0	0	0	0	1
	0	39,848	0	0	0	0	0	39,848
30-34	0	1	0	0	0	0	0	1
	0	58,779	0	0	0	0	0	58,779
35-39	0	3	1	0	0	0	0	4
	0	47,785	50,122	0	0	0	0	48,369
40-44	0	3	1	0	2	0	0	6
	0	70,466	41,768	0	64,089	0	0	63,557
45-49	0	0	2	1	1	0	0	4
	0	0	42,281	52,239	41,826	0	0	44,657
50-54	0	0	0	2	1	1	0	4
	0	0	0	40,936	45,821	74,748	0	50,610
55-59	0	1	1	0	0	2	1	5
	0	37,764	61,869	0	0	58,533	61,002	55,540
60-64	0	1	0	1	1	0	0	3
	0	38,740	0	54,498	113,313	0	0	68,850
65-69	0	1	0	0	0	1	0	2
	0	28,457	0	0	0	40,302	0	34,380
70 & Over	0	0	0	2	0	0	0	2
_	0	0	0	41,553	0	0	0	41,553
Total	0	11	5	6	5	4	1	32
10111	0	50,758	47,664	45,286	65,828	58,029	61,002	52,832

EXHIBIT 9.7 - AGE AND SERVICE DISTRIBUTION WITH ANNUAL AVERAGE SALARY OF ACTIVE GENERAL MEMBERS
AS OF JUNE 30, 2005

PLAN 5B

Years	of	Ser	vice

				1 0415 01	DCI VICC			
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	94	3	0	0	0	0	0	97
	35,695	50,248	0	0	0	0	0	36,145
25-29	189	46	1	0	0	0	0	236
	40,912	43,763	54,110	0	0	0	0	41,524
30-34	188	149	18	0	0	0	0	355
	49,537	51,705	42,338	0	0	0	0	50,082
35-39	156	147	14	1	0	0	0	318
	49,887	52,393	51,750	45,433	0	0	0	51,113
40-44	126	138	22	4	2	0	0	292
	51,503	57,508	53,932	38,105	55,798	0	0	54,370
45-49	139	141	21	3	4	0	0	308
	56,089	54,923	51,035	57,308	48,168	0	0	55,120
50-54	113	119	15	1	3	1	0	252
	59,271	56,387	55,556	48,622	69,123	65,093	0	57,786
55-59	71	94	13	1	1	1	0	181
	55,135	60,820	49,944	84,943	40,302	39,632	0	57,712
60-64	23	44	3	0	0	0	0	70
	63,470	58,430	44,422	0	0	0	0	59,486
65-69	3	13	2	0	0	0	0	18
	61,221	55,481	44,339	0	0	0	0	55,200
70 & Over	2	3	0	1	0	0	0	6
_	81,592	52,468	0	40,302	0	0	0	60,148
Total	1,104	897	109	11	10	2	0	2,133
	49,717	54,768	50,491	49,422	55,194	52,363	0	51,907

## EXHIBIT 9.8 - AGE AND SERVICE DISTRIBUTION WITH ANNUAL AVERAGE SALARY OF ACTIVE SAFETY MEMBERS AS OF JUNE 30, 2005

#### PLAN 4A

Years		

_								
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	5	1	8	0	0	0	0	14
	67,346	76,903	74,888	0	0	0	0	72,338
35-39	4	2	28	23	0	0	0	57
	72,811	63,970	72,663	80,253	0	0	0	75,431
40-44	1	3	22	40	17	1	0	84
	73,485	76,298	75,754	81,421	86,540	105,318	0	80,980
45-49	1	0	17	34	29	26	0	107
	74,331	0	74,064	82,989	94,845	96,039	0	87,874
50-54	0	3	5	11	21	30	7	77
	0	98,198	93,743	74,581	92,284	96,505	97,091	92,162
55-59	0	0	2	7	7	8	7	31
	0	0	69,151	70,959	83,612	99,101	97,300	86,910
60-64	0	1	2	3	2	0	2	10
	0	84,554	57,611	65,293	100,046	0	97,673	79,109
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	11	10	84	118	76	65	16	380
1 otal	70,526	81,289	74,781	79,977	91,382	96,774	97,255	84,471

## EXHIBIT 9.9 - AGE AND SERVICE DISTRIBUTION WITH ANNUAL AVERAGE SALARY OF ACTIVE SAFETY MEMBERS AS OF JUNE 30, 2005

PLAN 4B

_				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	20	0	0	0	0	0	0	20
	54,111	0	0	0	0	0	0	54,111
25-29	80	15	0	0	0	0	0	95
	58,964	66,588	0	0	0	0	0	60,168
30-34	64	89	9	0	0	0	0	162
	64,004	68,410	60,045	0	0	0	0	66,205
35-39	36	54	12	1	0	0	0	103
	64,290	68,660	62,924	78,580	0	0	0	66,561
40-44	16	25	10	9	1	0	0	61
	60,010	67,970	60,334	60,921	62,377	0	0	63,499
45-49	8	17	8	5	8	0	0	46
	56,660	60,969	59,841	64,815	73,431	0	0	62,609
50-54	8	11	2	5	9	5	0	40
	59,122	56,167	68,465	79,893	69,787	80,449	0	66,438
55-59	9	7	7	2	1	2	0	28
	62,993	59,498	57,199	60,239	60,308	94,669	0	62,641
60-64	1	6	0	1	0	1	0	9
	52,872	76,841	0	2,663	0	94,338	0	67,880
65-69	1	0	1	0	0	0	0	2
	52,218	0	53,760	0	0	0	0	52,989
70 & Over	0	0	1	0	0	0	0	1
_	0	0	55,056	0	0	0	0	55,056
Total	243	224	50	23	19	8	0	567

60,776

67,081

60,474

64,067

70,432

85,740

64,049

## EXHIBIT 9.10 - AGE AND SERVICE DISTRIBUTION WITH ANNUAL AVERAGE SALARY OF ACTIVE APCD MEMBERS AS OF JUNE 30, 2005

PLAN 1

				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	1	0	0	0	0	1
	0	0	69,452	0	0	0	0	69,452
35-39	0	0	4	5	0	0	0	9
	0	0	72,401	64,260	0	0	0	67,878
40-44	0	0	1	2	2	0	0	5
	0	0	71,130	78,354	85,862	0	0	79,912
45-49	0	0	2	7	2	0	0	11
	0	0	80,853	82,717	83,739	0	0	82,564
50-54	0	0	3	4	0	0	0	7
	0	0	58,819	75,106	0	0	0	68,126
55-59	0	0	1	1	0	0	0	2
	0	0	68,887	67,497	0	0	0	68,192
60-64	0	0	0	2	0	0	0	2
	0	0	0	78,267	0	0	0	78,267
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	0	0	12	21	4	0	0	37
	0	0	69,770	75,309	84,801	0	0	74,538

## EXHIBIT 9.11 - AGE AND SERVICE DISTRIBUTION WITH ANNUAL AVERAGE SALARY OF ACTIVE APCD MEMBERS AS OF JUNE 30, 2005

PLAN 2

_				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	4	0	0	0	0	0	0	4
	58,473	0	0	0	0	0	0	58,473
30-34	0	1	0	0	0	0	0	1
	0	88,761	0	0	0	0	0	88,761
35-39	2	0	0	0	0	0	0	2
	65,340	0	0	0	0	0	0	65,340
40-44	1	0	0	0	0	0	0	1
	65,336	0	0	0	0	0	0	65,336
45-49	0	2	0	0	0	0	0	2
	0	58,717	0	0	0	0	0	58,717
50-54	3	1	0	0	0	0	0	4
	62,270	81,351	0	0	0	0	0	67,040
55-59	0	2	0	0	0	0	0	2
	0	62,463	0	0	0	0	0	62,463
60-64	0	3	0	0	0	0	0	3
	0	41,117	0	0	0	0	0	41,117
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	10	9	0	0	0	0	0	19
_ 2 384	61,672	59,536	0	0	0	0	0	60,660

## EXHIBIT 9.12 - AVERAGE ANNUAL BENEFIT AND MEMBERSHIP DISTRIBUTION OF RETIRED GENERAL MEMBERS AS OF JUNE 30, 2005

#### **MALES**

Years of Retirement

				1 cars or re	CtifCificift			
Current Age								
	0-4	5-9	10-14	15-19	20-24	25-29	30 & OVER	TOTAL
Below 45	7	2	0	0	0	0	0	9
	10,087	19,778	0	0	0	0	0	12,241
45-49	0	4	1	0	0	0	0	5
	0	12,540	19,912	0	0	0	0	14,014
50-54	24	1	0	0	0	0	0	25
	16,414	8,071	0	0	0	0	0	16,080
55-59	48	23	0	3	0	0	0	74
	27,874	13,525	0	22,861	0	0	0	23,211
60-64	78	28	17	2	1	1	0	127
	35,469	20,165	13,265	7,617	16,261	16,628	0	28,384
65-69	41	43	33	12	1	2	0	132
	32,160	34,553	18,444	13,240	10,616	11,210	0	27,310
70-74	12	24	37	21	12	1	1	108
	21,064	15,248	27,964	18,383	7,983	14,534	13,034	20,026
75-79	8	13	30	36	25	9	1	122
	8,687	19,554	30,969	24,695	15,541	6,733	1,029	21,245
80-84	7	6	6	22	33	30	4	108
	6,915	13,543	10,013	21,040	21,106	10,230	9,965	15,703
85 & Over	7	6	1	3	28	30	17	92
_	7,680	6,958	6,621	54,781	15,915	13,020	15,743	14,895
Total	232	150	125	99	100	73	23	802
	27,207	21,349	23,076	21,666	16,533	11,119	13,981	21,609

## EXHIBIT 9.13 - AVERAGE ANNUAL BENEFIT AND MEMBERSHIP DISTRIBUTION OF RETIRED GENERAL MEMBERS AS OF JUNE 30, 2005

#### **FEMALES**

Years of Retirement

				1 0415 01 10	CtifCificit			
Current Age								
	0-4	5-9	10-14	15-19	20-24	25-29	30 & OVER	TOTAL
Below 45	6	2	2	0	0	0	0	10
	8,904	16,728	6,867	0	0	0	0	10,061
45-49	5	9	0	1	0	0	0	15
	18,667	15,101	0	17,244	0	0	0	16,433
50-54	58	5	2	1	1	0	0	67
	12,849	26,382	16,164	26,939	10,566	0	0	14,134
55-59	75	47	2	1	0	1	0	126
	22,153	10,030	18,931	8,607	0	12,242	0	17,394
60-64	95	47	24	3	1	1	0	171
	23,177	15,236	8,183	13,635	10,614	9,298	0	18,568
65-69	70	62	33	14	2	2	1	184
	22,066	16,743	11,129	10,279	16,411	9,777	16,923	17,191
70-74	32	52	49	21	13	3	3	173
	17,651	18,337	18,474	9,903	7,818	7,020	6,572	16,034
75-79	17	20	47	46	23	19	1	173
	10,206	12,288	16,219	14,773	10,136	6,490	4,514	12,844
80-84	12	10	14	38	34	33	13	154
	9,500	15,863	14,733	17,996	11,201	5,734	8,761	11,991
85 & Over	13	8	1	7	27	49	41	146
_	6,542	6,077	21,762	18,647	10,485	8,076	10,017	9,421
Total	383	262	174	132	101	108	59	1,219
10411		15,013			10,423	7,133	9,589	14,801

## EXHIBIT 9.14 - AVERAGE ANNUAL BENEFIT AND MEMBERSHIP DISTRIBUTION OF RETIRED SAFETY MEMBERS AS OF JUNE 30, 2005

#### **TOTAL**

Years of Retirement

_								
Current								
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 & OVER	TOTAL
Below 45	7	2	0	0	0	0	0	9
	28,431	25,655	0	0	0	0	0	27,814
45-49	7	7	0	0	0	0	0	14
	26,558	23,813	0	0	0	0	0	25,186
50-54	27	3	0	2	2	0	0	34
	32,900	28,108	0	23,602	23,548	0	0	31,380
55-59	87	18	4	2	3	6	0	120
	68,014	25,396	34,829	28,597	24,472	18,352	0	56,287
60-64	52	82	16	2	6	5	6	169
	60,929	56,236	33,820	32,627	18,853	15,003	18,576	51,394
65-69	4	27	27	11	9	14	5	97
	56,619	43,273	46,389	27,289	24,719	19,936	16,690	36,418
70-74	5	6	15	12	6	3	1	48
	18,406	24,632	39,349	38,507	29,444	13,614	25,476	31,982
75-79	4	2	1	3	3	5	6	24
	19,506	32,104	32,996	51,214	38,846	20,300	14,951	26,526
80-84	0	0	1	1	3	3	10	18
	0	0	79,921	10,651	40,546	21,811	17,218	24,990
85 & Over	0	0	0	0	1	2	4	7
_	0	0	0	0	13,699	35,369	25,680	26,737
Total	193	147	64	33	33	38	32	540
1 Otai					26,807			

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

## **AS OF JUNE 30, 2005**

#### **GENERAL MEMBERS**

		Number	_	Annual Allowance
Service				
	Males	684	\$	15,927,679
	Females	901	_	14,023,241
	Total	1,585	\$	29,950,920
Disability				
	Males	52	\$	933,684
	Females	71	_	1,326,689
	Total	123	\$	2,260,373
Beneficiaries				
	Males	66	\$	469,221
	Females	247		2,692,228
	Total	313	\$	3,161,449
Total		2,021	\$ =	35,372,742
		SAFETY MEMBERS		
		Number		Annual Allowance
Service			_	
	Males	329	\$	17,902,784
	Females	47		1,457,166
	Total	376	\$	19,359,950
Disability				
- -	Males	92	\$	2,495,958
	Females	19		490,331
	Total	111	\$	2,986,289
Beneficiaries				
	Males	4	\$	84,492
	Females	49		1,020,406
	Total	53	\$	1,104,898
Total		540	\$ _	23,451,137

#### General Plan 5, APCD and Safety

**Eligibility** First pay period following date of employment.

Final Average Salary Highest 12 consecutive months of compensation earnable for all

members.

Service Retirement Early retirement

Age 50 and 10 years or 30 years for General and APCD, and 20

years for Safety.

**Benefit** 

General Plan 5 and APCD: 2% of final average salary times years

of service times factor in the table below.

Safety Plan 4: 3% of final average salary per year of service for times years of service times factor in the table below.

<b>Benefit Factors</b>		General Plan 5	APCD	Safety
	Age	31676.12	31676.15	31664.2
	41			.4777
	42			.5058
	43			.5347
	44			.5647

Non Service Connected Disability Retirement

1.8% of final average salary per year of service, with a maximum of 33-1/3% if projected service is used (age 62 for General Plan 5, age 65 for APCD and age 55 for Safety Plan 4), or 90% of the accrued service retirement benefit without a benefit adjustment, or service retirement benefit (if eligible).

Service Connected Disability Retirement

Greater of 50% of final average salary or service retirement benefit (if eligible).

**Death Before Retirement** 

If nonservice connected before eligible to retire, this benefit is a refund of contributions plus 1/12 of last years' salary per year of service up to 6 years.

If eligible for nonservice connected disability or service retirement the benefit is 60% of member's accrued allowance.

If service connected death, the benefit is 50% of salary.

**Death After Retirement** 

\$5,000 lump sum death benefit.

For service retirement or nonservice connected disability, the benefit is 60% of member's allowance payable to an eligible.

For service connected disability, the benefit is 100% of member's allowance payable to an eligible spouse.

**Vesting** 

Must leave contributions on deposit.

Must have five years of service.

**Member Contributions** 

Based on entry age.

Half rates for General Plan 5A, Safety Plan 4A and APCD Plan 1. Full rates for General Plan 5B, Safety Plan 4B, and APCD Plan 2.

**Maximum Benefit** 

100% of final average salary.

**Cost-Of-Living** 

Up to 3% cost-of-living adjustment.

#### Section 10: Summary of Major Plan Provisions

**General Plan 2 Only** 

**Eligibility** First pay period following date of Employment.

**Final Average Salary** Highest 36 consecutive months of compensation earnable.

Service Retirement Early retirement

Age 55 and 10.

**Benefit** 

2% of final average salary per year of service (max. 35 years) plus 1% of final average salary per year of service in excess of 35 (max. 10 years) reduced by 1/35 of Social Security benefit at age

65 per year of service (max. 35 years).

**Disability Retirement** 60% of salary provided outside of the Plan. Payments are reduced

by other disability income benefits. Service retirement at age 65 (credit given toward service retirement while disabled under the

LTD plan).

**Death Before Retirement** 1/12 of last years' salary per year of service up to 6 years.

**Death After Retirement** 50% of member's allowance payable to an eligible spouse.

**Vesting** Ten years of service.

**Member Contributions** Noncontributory.

Maximum Benefit Benefit and Social Security combined cannot exceed 70% of final

average salary if service is less than 35, otherwise 80.

**Cost-Of-Living** None.

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.

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

premiums 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 System membership.

### Section 11: Glossary of Terms

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.

# Section 12: Valuation Summary

## Summary of Valuation Results

		Actives	Inactives	Retirees	Totals	Active Payroll	Average	Retiree Benefits	Average	Valuation Value of Assets*	Market Value of Assets	Actuarial Accrued Liability *	Retirement	Unfunded Actuarial Accrued Liability* Retirement	Retirement Contribution Rates	Normal Cost Unfunded Actuarial Accured Liability	Total	Valuation Assets Funded Ratios Retirement	Market Value of Assets Funded Ratios Retirement
400000	General	3.502	557	1,933	5,992	195,663,669	55,872	31,749,518	16,425	722,632,002	703,686,310		830,056,620	107,424,618	ò	9.45% 4.86%	14.31%	87.1%	84.8%
5002/08/9	General	3.502	590	2,013	6,105	195,460,015	55,814	35,190,250	17,481	759,956,727	778,771,919		891,552,064	131,595,337	Š	9.32%	15.52%	85.2%	87 4%
Percentage	Change	0.0%	5.9%	4.1%	1.9%	-0.1%	-0.1%	10.8%	6.4%	5.2%	10.7%		7.4%	22.5%	ì	-1.4%	8.5%	-2.2%	3 1%
4000/08/9	Safety	944	140	499	1,583	67,595,739	71,606	20,341,268	40,764	504,496,220	491,269,528		594,673,780	90,177,560	i i	11.85%	29.20%	84.8%	%9 C8
5002/08/9	Safety	947	147	540	1,634	68,414,763	72,244	23,451,137	43,428	530,140,348	543,265,690		639,412,662	109,272,314	i i	17.26%	32.03%	82.9%	%0 58
Percentage	Change	0.3%	5.0%	8.2%	3.2%	1.2%	%6.0	15.3%	6.5%	5.1%	10.6%		7.5%	21.2%	e i	-0.5% 24.6%	9.7%	-2.2%	%0 C
400706/9	APCD	57	20	· ∞	85	3,701,016	64,930	177,178	22,147	14,428,392	14,050,114		16,425,675	1,997,283		11.36% 4.96%	16.52%	87.8%	%5 58
\$000/08/9	APCD	95	20	· ∞	84	3,910,457	69,830	182,494	22,812	15,897,856	16,291,459		18,838,244	2,940,388	200	7.04%	18.33%	84.4%	%5 98
Percentage	Change	-1.8%	%0:0	0.0%	-1.2%	5.7%	7.5%	3.0%	3.0%	10.2%	16.0%		14.7%	47.2%	ò	-2.3% 41.9%	11.0%	-3.9%	1 2%
400000	Totals	4.503	717	2,440	7,660	266,960,424	59,285	52,267,964	21,421	1,241,556,614	1,209,005,952		1,441,156,075	199,599,461	•	11.48%	18.11%	86.2%	83.9%
\$000/08/9	Totals	4.505	757	2,561	7,823	267,785,235	59,442	58,823,881	22,969	1,305,994,931	1,338,329,068		1,549,802,970	243,808,039		11.38%	19.78%	84.3%	86.4%
Percentage	Change	0.0%	5.6%	5.0%	2.1%	0.3%	0.3%	12.5%	7.2%	5.2%	10.7%		7.5%	22.1%	ò	%6.7% 26.7%	9.2%	-2.2%	3 0%

\*Excluding Special Reserves