

Actuarial²⁰⁰⁸

SAN JOAQUIN COUNTY EMPLOYEES'
RETIREMENT ASSOCIATION

Actuarial Certification

April 14, 2009

Board of Retirement
San Joaquin County Employees' Retirement Association
6 South El Dorado Street, Suite 700
Stockton, California 95202

Re: Actuarial Certification of January 1, 2008 Valuation

EFI Actuaries, under contract with the San Joaquin County Employees' Retirement Association (SJCERA), performed an actuarial valuation of Plan benefits as of January 1, 2008. In this study, we relied on participant and financial data supplied by SJCERA staff, and conducted an examination of such data for reasonableness and consistency.

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 the valuation date, the amortization period is 10 years. The funding objective of the Plan is to establish contribution rates that, over time, are likely to remain as a level percentage of payroll unless Plan benefit provisions are changed. For actuarial valuation purposes, Plan assets are valued at Actuarial Value with adjustments for certain Special Reserves. Under this method, the assets used to determine employer contribution rates take into account market value by spreading all investment gains and losses (returns above or below expected returns) over a period of five years.

We selected the actuarial assumptions shown in the schedules to be appropriate for use under the Plan. We performed an analysis of the Plan's noneconomic experience for the years 2004 through 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 expected to cover the years 2007 through 2009.

Our firm has prepared the following schedules for the actuarial report: all demographic rate tables, salary increase rates, and Actuarial Value of Assets and Reserves. Additionally, we have prepared the following schedules based on historical information and our calculations as of January 1, 2008: Solvency Test, Schedule of Funding Progress, and Schedule of Contributions. 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,



Robert T. McCrory, FSA



Graham A. Schmidt, ASA

Summary of Actuarial Assumptions and Methods

Actuarial assumptions and methods are both recommended by our actuaries, EFI Actuaries, and adopted by the Board of Retirement on an annual basis. The most current Actuarial Valuation was conducted on January 1, 2008 for the period ending December 31, 2007. An Experience Analysis is completed once every three years.

The most recent Experience Analysis was conducted on January 1, 2007 for the years 2004 through 2006.

ACTUARIAL COST METHOD:	Entry Age Normal Cost Method
UNFUNDED LIABILITY:	The excess of the Actuarial Accrued Liability over Plan assets is the Unfunded Actuarial Accrued Liability (UAAL), and this liability is amortized over a rolling 10 year-period as a level percentage of payroll.
VALUATION INTEREST RATE:	The annual rate of return on all Plan assets is assumed to be 8.00% per annum, which equates to an 8.16% effective rate, net of investment and administrative expenses.
INFLATION ASSUMPTION:	3.75% per annum
INCREASES IN PAY:	Assumed pay increases for active members consist of increases due to base salary adjustments plus service-based increases due to longevity and promotion. Rates vary by age and classification (<i>See Salary Scale Schedule</i>)
ASSET VALUATION METHOD:	The Plan uses a modified market-related value method called the Actuarial Value of Plan Assets. The market value of assets is adjusted to recognize, over a five-year period, differences between actual investment earnings and the assumed investment return. The actuarial value of assets is limited to no less than 80% and no more than 120% of the market value. Accordingly, only 20% of this difference is being recognized in any one year (<i>See Actuarial Value of Assets Schedule</i>).
POST-RETIREMENT MORTALITY:	Rates of mortality for retired male General Members and their beneficiaries are given by the 1994 GAM tables with ages set forward one year. Rates of mortality for retired Safety Members and their beneficiaries are given by the 1994 GAM tables with ages set forward one year for males and three years for females.

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Summary of Actuarial Assumptions and Methods

DISABLED MEMBER MORTALITY:	Rates of mortality among disabled Members are specified for male and female members combined; separate tables are used for General and for Safety disabled members.
PRE-RETIREMENT MORTALITY:	Rates vary by age, gender and classification (See <i>Probabilities of Separation Schedule</i>).
WITHDRAWAL RATES:	Rates vary by age, gender and classification (See <i>Probabilities of Separation Schedule</i>).
DISABILITY RATES:	Rates vary by age, gender and classification (See <i>Probabilities of Separation Schedule</i>).
SERVICES RETIREMENT RATES:	Rates vary by age, gender and classification (See <i>Probabilities of Separation Schedule</i>).
FAMILY COMPOSITION:	50% of General female members and 70% of General male and all Safety members are assumed to be married. Male spouses are assumed to be three years older than their wives.
VESTED TERMINATIONS:	No terminations are assumed for participants who are eligible for retirement. For General members who terminate with at least five years of service, 25% are assumed to go to work with a reciprocal employer. For General members who terminate with less than five years of service, 100% are assumed to go to work with a reciprocal employer. This rate is 50% for Safety members at all service levels.
DEFERRAL AGE FOR VESTED TERMINATORS:	Vested terminated General Members are assumed to begin receiving benefits at age 63; terminated Safety Members are assumed to begin receiving benefits at age 55.
RECIPROCITY ASSUMPTIONS:	50% of members who terminate with a vested benefit are assumed to enter a reciprocal system.
EMPLOYMENT STATUS:	No future transfers among member groups are assumed.

Schedule of Active Member Valuation Data

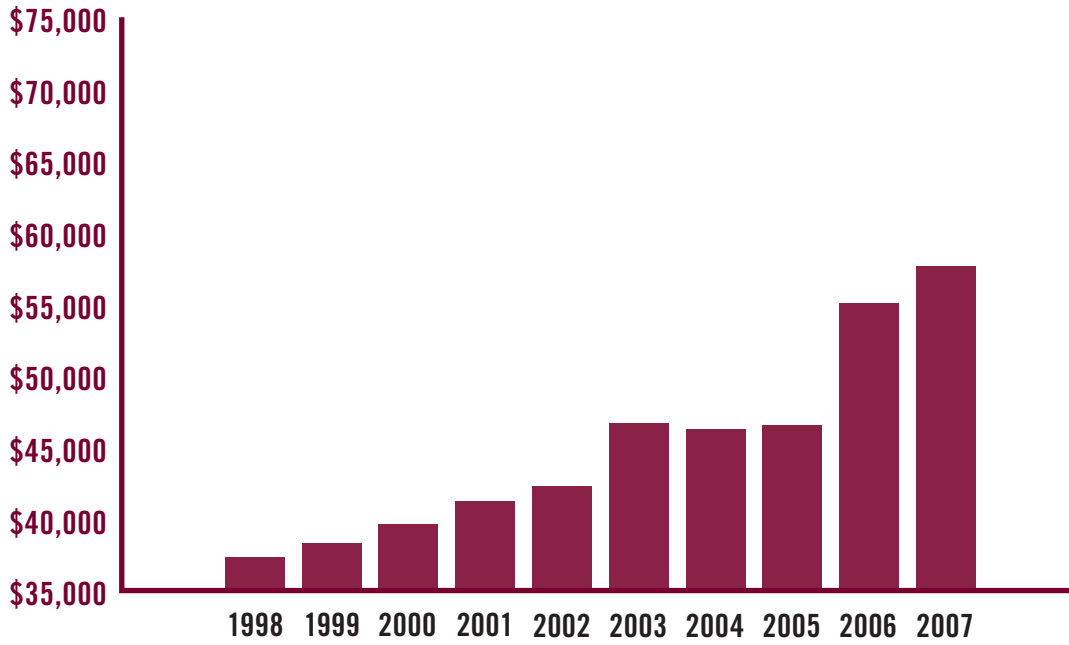
VALUATION AT YEAR END	PLAN TYPE	MEMBERS	ANNUAL PAYROLL	AVERAGE ANNUAL SALARY	AVERAGE SALARY % INCREASE
1998	General	3,999	149,191,271	37,307	2.4%
	Safety	713	33,136,675	46,475	-0.6%
	Total	4,712	182,327,946	38,694	1.9%
1999	General	4,124	157,981,192	38,308	2.7%
	Safety	741	38,155,572	51,492	10.8%
	Total	4,865	196,136,764	40,316	4.2%
2000	General	4,456	176,642,080	39,641	3.5%
	Safety	754	38,720,916	51,354	-0.3%
	Total	5,210	215,362,996	41,336	2.5%
2001	General	4,907	202,537,166	41,275	4.1%
	Safety	769	40,790,000	53,043	3.3%
	Total	5,676	243,327,166	42,869	3.7%
2002	General	5,121	216,750,000	42,326	2.5%
	Safety	796	43,062,000	54,098	2.0%
	Total	5,917	259,812,000	43,909	2.4%
2003	General	5,116	238,914,000	46,699	10.3%
	Safety	812	47,515,000	58,516	8.2%
	Total	5,928	286,429,000	48,318	10.0%
2004	General	5,176	239,505,000	46,272	-0.9%
	Safety	832	47,567,000	57,168	-2.3%
	Total	6,008	287,072,000	47,784	-1.1%
2005	General	5,210	242,654,000	46,575	6.5%
	Safety	835	49,623,000	59,429	3.95%
	Total	6,045	292,277,000	48,350	1.18%
2006	General	5,234	288,178,806	55,059	18.22%
	Safety	820	56,293,820	68,651	15.52%
	Total	6,054	344,472,626	56,900	3.75%
2007	General	5,353	308,773,122	57,682	4.76%
	Safety	871	62,988,014	72,317	5.34%
	Total	6,224	371,761,136	59,370	4.97%

Payroll figures represent the annualization of active member's pay rates on December 31.

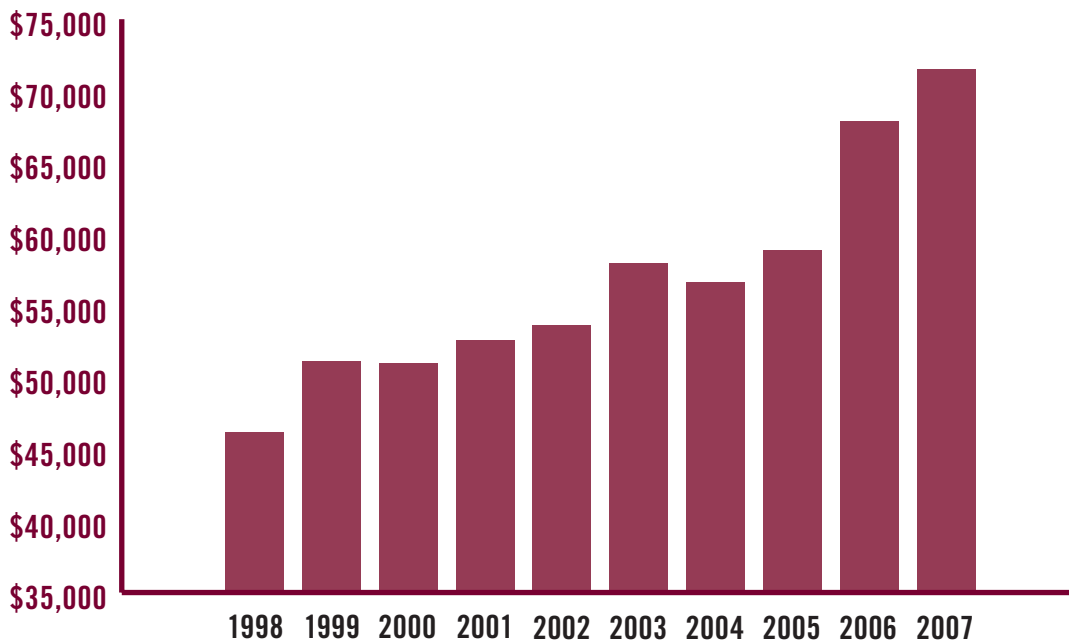
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Chart of Active Member Average Annual Salary

General Members



Safety Members



Schedule of Retirees and Beneficiaries Valuation Data

YEAR	PLAN TYPE	MEMBER RETIREMENTS	BENEFICIARY CONTINUANCE	MEMBERS AND BENEFICIARIES REMOVED	TOTAL RETIREES ON PAYROLL	ANNUAL RETIREMENT PAYROLL	AVERAGE ANNUAL ALLOWANCE	AVERAGE ALLOWANCE % INCREASE
1998	General	136	31	89	2,239	27,964,957	12,490	3.4%
	Safety	30	7	5	337	8,654,663	25,682	5.3%
	Total	166	38	94	2,576	36,619,620	14,216	4.5%
1999	General	146	34	75	2,344	30,811,767	13,145	5.2%
	Safety	48	2	4	383	10,343,753	27,007	5.2%
	Total	194	36	79	2,727	41,155,520	15,092	6.2%
2000	General	158	24	81	2,445	33,700,711	13,784	4.9%
	Safety	29	6	7	411	11,669,478	28,393	5.1%
	Total	187	30	88	2856	45,370,189	15,886	5.3%
2001	General	125	35	80	2,525	36,070,516	14,285	3.6%
	Safety	49	6	10	456	14,174,134	31,084	9.5%
	Total	174	41	90	2,981	50,244,650	16,855	6.1%
2002	General	158	24	86	2,621	39,891,228	15,220	6.5%
	Safety	60	8	8	516	17,673,572	34,251	10.2%
	Total	218	32	94	3,137	57,564,800	18,350	8.9%
2003	General	176	42	98	2,741	44,424,864	16,208	6.5%
	Safety	36	4	8	548	19,348,974	35,308	3.1%
	Total	212	46	106	3,289	63,773,838	19,390	5.7%
2004	General	196	23	83	2,856	48,699,000	17,052	5.2%
	Safety	46	6	14	577	21,444,000	37,164	10.8%
	Total	242	29	97	3,433	70,143,000	20,436	5.4%
2005	General	204	29	111	2,978	54,058,708	18,153	6.5%
	Safety	35	4	12	604	23,396,038	38,735	4.2%
	Total	239	33	123	3,582	77,454,746	21,623	5.9%
2006	General	190	41	102	3,107	58,634,478	18,872	4.0%
	Safety	31	8	11	632	25,003,422	39,562	2.1%
	Total	221	49	113	3,739	83,637,900	22,369	3.5%
2007	General	199	31	99	3,238	65,213,731	20,140	6.7%
	Safety	38	6	8	668	27,396,329	41,012	3.7%
	Total	237	37	107	3,906	92,610,060	23,710	6.0%

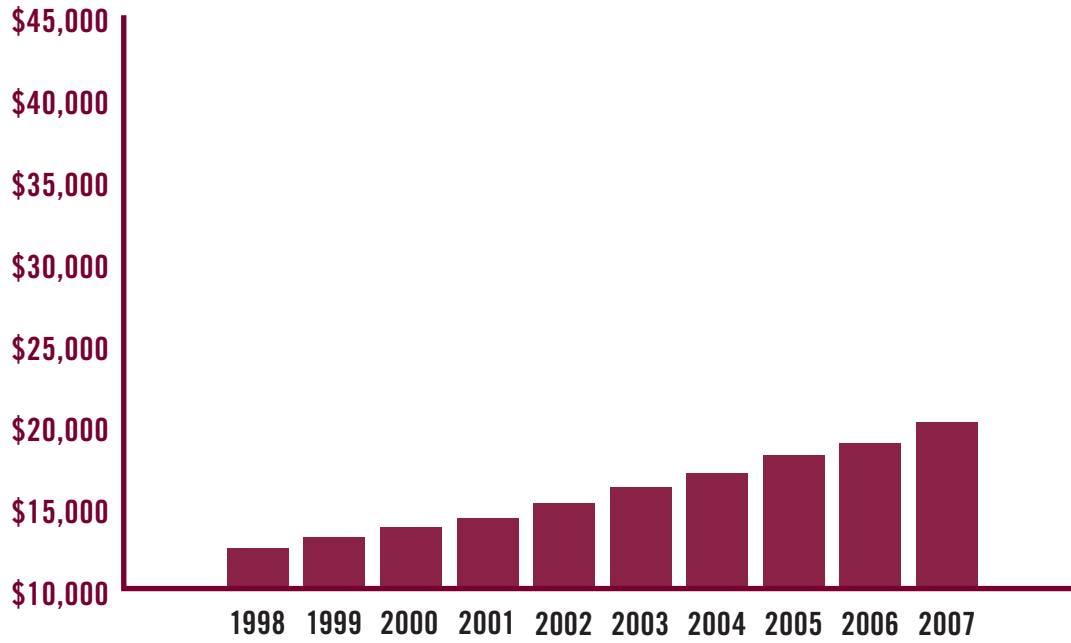
Payroll figures represent year end monthly retirement benefits annualized and exclude Post-Employment.

Healthcare benefit and benefits under the Class Action Settlement.

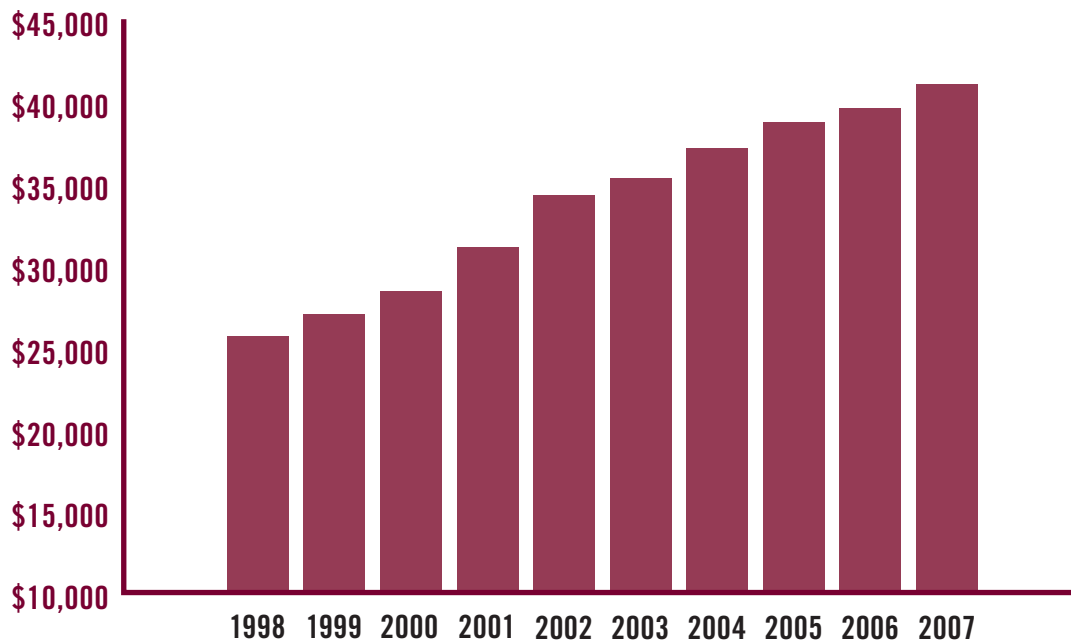
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Chart of Retirees and Beneficiaries Average Annual Allowance

General Members



Safety Members



Solvency Test

VALUATION AT YEAR END	(1) ACTIVE MEMBER CONTRIBUTIONS	(2) RETIRES AND BENEFICIARIES	(3) ACTIVE MEMBERS (EMPLOYER FINANCED PORTION)	ACTUARIAL VALUE OF ASSETS	PORTION OF ACCRUED LIABILITIES COVERED BY REPORTED ASSET		
					(1)	(2)	(3)
1997	103,864	359,353	409,186	915,242	100%	100%	100%
1998	110,300	394,016	436,338	1,013,320	100%	100%	100%
1999	116,054	445,458	461,031	1,105,506	100%	100%	100%
2000	123,941	486,532	481,357	1,182,914	100%	100%	100%
2001	132,004	541,321	593,423	1,357,409	100%	100%	100%
2002	137,209	643,984	637,016	1,448,905	100%	100%	100%
2003	126,606	726,382	739,749	1,531,288	100%	100%	91.3%
2004	140,800	805,878	822,829	1,614,979	100%	100%	81.2%
2005	147,953	904,208	883,657	1,727,033	100%	100%	76.4%
2006	159,100	1,023,296	967,542	1,869,717	100%	100%	71.0%
2007	166,804	1,119,690	1,048,027	2,029,949	100%	100%	71.0%

This schedule excludes the health insurance reserve, supplemental cost-of living reserve, Retiree Class Action Settlement Reserve, \$5,000 Death Benefit Reserve, Purchasing Power COL Reserve, Unappropriated Earnings Reserve, and Restricted Unappropriated Earnings Reserve.

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Probabilities of Separation for Active Membership (General)

AGE	WITHDRAWAL AFTER 5 YEARS	NON-DUTY DEATH	ORDINARY DISABILITY	SERVICE RETIREMENT	DUTY DEATH	DUTY DISABILITY	TERMINATED VESTED
GENERAL MEMBERS - MALE							
20	0.020	0.000	0.000	0.000	0.000	0.001	0.025
25	0.020	0.001	0.001	0.000	0.000	0.001	0.025
30	0.020	0.001	0.001	0.000	0.000	0.001	0.025
35	0.020	0.001	0.001	0.000	0.000	0.001	0.025
40	0.020	0.001	0.001	0.000	0.000	0.004	0.025
45	0.020	0.001	0.002	0.000	0.000	0.004	0.025
50	0.020	0.002	0.002	0.020	0.000	0.002	0.025
55	0.020	0.003	0.003	0.050	0.000	0.002	0.025
60	0.000	0.005	0.003	0.075	0.000	0.002	0.025
65	0.000	0.009	0.004	0.500	0.000	0.002	0.025
GENERAL MEMBERS - FEMALE							
20	0.020	0.000	0.001	0.000	0.000	0.000	0.020
25	0.020	0.000	0.001	0.000	0.000	0.000	0.020
30	0.020	0.000	0.001	0.000	0.000	0.001	0.020
35	0.020	0.000	0.001	0.000	0.000	0.001	0.020
40	0.020	0.000	0.002	0.000	0.000	0.001	0.020
45	0.020	0.001	0.002	0.000	0.000	0.002	0.020
50	0.020	0.001	0.003	0.020	0.000	0.002	0.020
55	0.020	0.001	0.004	0.040	0.000	0.003	0.020
60	0.000	0.002	0.005	0.100	0.000	0.003	0.020
65	0.000	0.004	0.006	0.500	0.000	0.004	0.020

The probabilities for each cause of separation represent the likelihood that a given member will separate at a particular age for the indicated reason. As an example, if the probability of separation of a male general member at age 20 is 0.03624, that indicates that 3.624% of active general members are expected to separate from service during the year.

Probabilities of Separation for Active Membership (Safety)

AGE	WITHDRAWAL AFTER 5 YEARS	NON-DUTY DEATH	ORDINARY DISABILITY	SERVICE RETIREMENT	DUTY DEATH	DUTY DISABILITY	TERMINATED VESTED
SAFETY MEMBERS - MALE							
20	0.010	0.000	0.000	0.000	0.000	0.001	0.020
25	0.010	0.001	0.000	0.000	0.000	0.001	0.020
30	0.010	0.001	0.000	0.000	0.000	0.002	0.020
35	0.010	0.001	0.000	0.000	0.000	0.003	0.020
40	0.010	0.001	0.000	0.000	0.001	0.006	0.010
45	0.010	0.001	0.002	0.010	0.001	0.011	0.005
50	0.000	0.002	0.004	0.100	0.001	0.020	0.000
55	0.000	0.003	0.006	0.200	0.001	0.032	0.000
SAFETY MEMBERS - FEMALE							
20	0.010	0.000	0.000	0.000	0.000	0.001	0.020
25	0.010	0.001	0.000	0.000	0.000	0.001	0.020
30	0.010	0.001	0.000	0.000	0.000	0.002	0.020
35	0.010	0.001	0.000	0.000	0.000	0.003	0.020
40	0.010	0.001	0.000	0.000	0.001	0.006	0.010
45	0.010	0.001	0.002	0.010	0.001	0.011	0.005
50	0.000	0.002	0.004	0.100	0.001	0.020	0.000
55	0.000	0.003	0.006	0.200	0.001	0.032	0.000

The probabilities for each cause of separation represent the likelihood that a given member will separate at a particular age for the indicated reason. As an example, if the probability of separation of a male general member at age 20 is 0.03624, that indicates that 3.624% of active general members are expected to separate from service during the year.

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Salary Increase Assumption

SERVICE	GENERAL	SAFETY
1	0.0790	0.1075
2	0.0790	0.1075
3	0.0790	0.1075
4	0.0790	0.1075
5	0.0479	0.0608
6	0.0479	0.0608
7	0.0479	0.0608
8	0.0479	0.0608
9	0.0479	0.0608
10	0.0479	0.0608
11	0.0479	0.0608
12	0.0479	0.0608
13	0.0479	0.0608
14	0.0479	0.0608
15	0.0479	0.0608
16	0.0479	0.0608
17	0.0479	0.0608
18	0.0479	0.0608
19	0.0479	0.0608
20	0.0479	0.0608
21	0.0479	0.0608
22	0.0479	0.0608
23	0.0479	0.0608
24	0.0479	0.0608
25	0.0479	0.0608
26	0.0479	0.0608
27	0.0479	0.0608
28	0.0479	0.0608
29	0.0479	0.0608
30+	0.0375	0.0608

Note: Salary scale assumption reflects 3.75% for wage inflation (including 3.50% for general inflation).

Actuarial Value of Assets and Reserves

Actuarial Value of Assets							
	(A)	(B)	(C)	(D)	(E) = (D) – (C)	(F)	(G) = (E) X (F)
YEAR END	CONTRIBUTIONS	BENEFITS	EXPECTED RETURN	ACTUAL RETURN	ADDITIONAL EARNINGS	PERCENTAGE NOT RECOGNIZED	UNRECOGNIZED DOLLARS
2004	53,694,111	78,373,298	129,668,425	184,483,524	54,815,099	20%	10,963,020
2005	73,363,413	86,079,634	136,711,660	119,329,193	(17,382,467)	40%	(6,952,987)
2006	85,627,410	89,710,609	145,884,755	234,031,734	88,146,979	60%	52,888,187
2007	100,961,450	95,922,296	159,890,660	143,799,297	(16,091,364)	80%	(12,873,091)
(1) Total Unrecognized Dollars							44,025,129
(2) Market Value of Assets as of December 31, 2007							2,228,090,628
(3) Actuarial Value of Assets as of December 31, 2007 [(2) - (1)]							2,184,065,499
(4) Corridor Limits							
a. 80% of Net Market Value						1,782,472,502	
b. 120% of Net Market Value						2,673,708,754	
(5) Actuarial Value of Assets after Corridor							2,184,065,499
(6) Ratio of Actuarial Value to Market Value [(5) ÷ (2)]							98.0%
(7) Special (Non Valuation) Reserves:							
\$5,000 Death Benefits						8,284,345	
Health Insurance Reserve						14,702,393	
Supplemental COL Reserve						0	
Purchasing Power COL Reserve						10,814,608	
Class Action Settlement – Pre 4/1/1982						600,623	
Class Action Settlement – Post 4/1/1982						2,969,576	
Contingency Reserve						66,842,719	
Reserve for Employer Contribution Offset						0	
Undistributed Earnings Reserve - Restricted						27,000,000	
Undistributed Earnings Reserve - Unrestricted						22,902,646	
Total Special Reserves							154,116,910
(8) Pension Reserves at Actuarial Value (Valuation Assets)							
[(5) - (7)]							2,029,948,588

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Summary of Major Plan Provisions

Membership

Membership is mandatory upon appointment to a full-time, permanent position with the County or participating agency. Membership begins on the first day of the biweekly payroll after employment.

Final Average Salary

Final compensation is the highest 12 consecutive months of compensation earnable. Compensation includes most pay supplements as determined by the Board of Retirement. Overtime pay is excluded.

Contributions

Employee contributions are based upon age at entry into membership and is a percentage of salary. Contributions earn interest which will be refunded with a member's contributions should employment termination occur before becoming eligible for retirement benefits.

Vesting

A member with 5 years of County retirement service is vested, assuming they leave their contributions on deposit.

Service Retirement

Service retirement benefits are as provided under Sections 31676.14 and 31664.1 of the 1937 County Act and became effective January 1, 2001 for all member service. Members are eligible to retire at age 50 with qualified retirement credit of 5 years and assuming 10 years have lapsed from date of membership. General Members with 30 years of qualified service or Safety Members with 20 years are eligible to retire, regardless of age. All members age 70 are eligible to retire, regardless of service. The benefit for a General Member at age 52 is 1/60 times final average

salary per year of service. The benefit for Safety Members at least age 50 is 3% times final average salary per year of service. Social Security integration reduces benefits by 1/3 on the first \$350 of monthly final average salary. The maximum benefit payable is 100% of final average salary.

Disability Retirement

Members with 5 years of qualified service, regardless of age, are eligible to apply for a non-service connected disability. The benefit is the greater of 1.5% (1.8% for Safety) of final average salary per year of service, with a general maximum of 33 1/3%, or 90% of the accrued service retirement benefit or a regular service retirement benefit, if eligible. Regardless of service, a member is eligible to apply for a service-connected disability which, if granted, would provide the greater of 50% of final average salary or a regular service retirement benefit, if eligible.

Death Benefit - Prior to Retirement

The Basic Death Benefit, available to any named beneficiary, consists of a refund of contributions plus 1/12 of last years' salary per year of service, but not to exceed 6 months. If the deceased member has at least 5 years of qualified service, a surviving spouse (if none, member's minor children) may elect, in lieu of the Basic Death Benefit, a monthly allowance equal to 60% of the monthly retirement allowance the deceased member would have been entitled to had the member retired for non-service connected disability or service retirement on the date of death. If a member's death is service-connected, the spouse may elect, in lieu of the Basic Death Benefit, a monthly allowance equal to 50% of the member's final highest one-year average salary.

Summary of Major Plan Provisions

Death Benefit - After Retirement

Survivor benefits vary based upon the option selected by a member at the time of retirement. Options available include a 50% and 100% lifetime survivor continuance, lump-sum payment of contributions remaining and a 60% lifetime continuance to an eligible surviving spouse. A service-connected disability provides for a 100% continuance to an eligible surviving spouse.

Cost-of-Living Benefits

Retirement allowances are adjusted effective April 1 of each year in accordance with changes in the All Urban Consumers annual average Consumer Price Index for the San Francisco-Oakland-San Jose Area. The cost-of-living increase cannot exceed 3% per year.