



Public Pension
Professionals, Inc.

San Mateo County Employees Retirement Association

Actuarial Valuation as of June 30, 2004



December 23, 2004



Actuaries you can understand

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Section 1 Highlights

This report presents the results of the June 30, 2004 actuarial valuation of the San Mateo County Employees' Retirement Association (SamCERA). Results from the prior valuation are shown for comparison.

June 30, 2004

June 30, 2003

Average Employer Contribution Rates

Normal Cost	10.32%	13.32%
Payment to UAAL	10.90%	9.52%
Total Contribution Rate	21.22%	22.84%

Funded Status

Actuarial Accrued Liability	\$1,921,328,506	\$1,781,544,000
Actuarial Value of Assets	\$1,452,621,173	\$1,387,521,000
UAAL	\$ 468,707,333	\$ 427,603,000
Funded Percentage	75.6%	76.0%

Key Assumptions

Interest Rate	8.00%	8.00%
Average Salary Increase	6.00%	6.25%
Inflation	4.00%	3.00%

Section 2 Board Summary

This actuarial valuation report has been prepared primarily to review the San Mateo County Employees' Retirement Association's (SamCERA) funded status as of June 30, 2004 and determine the contributions required of the Plan Members and Participating Employers for the fiscal year beginning July 1, 2005.

A. Major Events

The major events affecting the contribution rates and funded position of the Plan primarily fall into four categories:

- Investments,
- Demographics,
- Assumptions and Methodology, and
- Benefits.

Investments

Empirical evidence suggests that over 90% of the return achieved by a portfolio is due to the allocation of assets within that portfolio. As of June 30, 2004, the Retirement Plan's asset allocation was:

Stocks – Domestic	54%
Stocks – International	16%
Bonds	26%
Real Estate	4%

According to Ibbotson Associates, the return on investment for the major asset classes for the 12-month periods ended June 30, 2003 and June 30, 2004 were:

	June 30, 2004	June 30, 2003
Large Company Stocks	19.11%	0.25%
Small Company Stocks	40.12%	3.14%
Long-term Corporate Bonds	-2.75%	19.93%
Long-term Government Bonds	-4.32%	20.16%
Intermediate-term Government Bonds	-1.57%	11.92%
Treasury Bills	0.89%	1.38%

This translated into investment gains for pension funds across the United States. This fund was no exception. On a market value basis, the Plan investments achieved a return of approximately 15.6% for fiscal year 2003-2004. In the 2003-2004 fiscal year, these returns were greater than the 8.0% return assumed. This resulted in an actuarial gain to the Retirement Plan on a market-value basis of approximately \$84 million for the year.

SamCERA uses an asset smoothing method to determine contribution rates and the Plan's funded position. This method spreads market gains greater than the assumed rate (or less than the assumed rate) over a five-year period. Consequently, the asset value used for valuation purposes only achieved a return of approximately 6.2% for the fiscal year, due to the spreading of losses from previous years into the current year. This resulted in an actuarial loss of approximately \$25 million.

Detailed information regarding plan investments is shown in the Asset Information subsection in the Technical Information section of the report.

Demographics

The number of active members increased by 5% from 4,937 to 5,186. The average pay for active members increased by 7% (more than the rate assumed in the previous valuation) from \$65,606 to \$70,448.

The number of retired members and beneficiaries receiving pension checks increased from 3,454 to 3,539, while the average monthly benefit check went from \$1,676 to \$1,778 (an increase of 6%).

Detailed information regarding plan's demographics is shown in the Member Information subsection in the Technical Information section of the report.

Assumptions and Methodology

This marks the first valuation performed for SamCERA by Public Pension Professionals, Inc. (P³). As part of the transition from the prior actuary, we received the data used in the prior valuation along with information related to the benefits valued and the assumptions employed in that valuation. We attempted to match the liabilities developed by the prior actuary and were able to get within 2% of their calculations of the Present Value of Benefits for retirees, terminated vested members and active members.

With the June 30, 2004 Actuarial Valuation, we briefly reviewed the Plan's methodology and economic assumptions and are recommending a set of actuarial assumptions that are our best expectation of future experience under the Plan. These changes to the Plan's assumptions and methodology were presented to the Board in previous meetings and adopted by the Board at that time.

The assumptions for which we recommend changes include:

- **Inflation Assumption:** We are recommending an inflation assumption of 4.0%. This is in line with the interest assumption and current expectations.
- **Salary Increases:** We are recommending a change in the salary increase assumption reflecting the increase in the inflation assumption and the elimination of the productivity increase assumption.

We are also recommending some changes to the funding methodology used in the prior valuation. The changes include:

- The salary increase assumption used in the development of rates for the June 30, 2003 actuarial valuation report were 1/4% lower than shown in the June 30, 2003 valuation report.
- Member contribution accounts will be assumed to be credited using the valuation interest rate, rather than the 8.25% rates used in the June 30, 2003 actuarial valuation.
- Death benefit will include salary related benefit (up to 6 months of pay).
- Plan 3 early retirement factors will match those used by SamCERA.
- Retirement, disability, withdrawal and death assumptions will match those stated in the back of this report.
- Decrements related to terminated vested and ordinary death benefits will begin when the member is eligible to receive the benefit.
- Retirement eligibility will match the Plan's eligibility rules.
- Benefits will be allocated over the entire career of a Plan member even if he or she switches classification or tier during his or her career.

Benefits

There are no changes in the benefits taken into account in the actuarial valuation.

B. Funded Position

The primary responsibility of Plan Trustees is to ensure that there is enough money to pay for Plan benefits. We check our progress in this area by comparing the assets that have been set aside to pay for plan benefits with plan liabilities.

The primary target liability for SamCERA is the Actuarial Accrued Liability. The **Actuarial Accrued Liability (AAL)** is the portion of the Present Value of Benefits attributed to the past. In other words,

- If current plan benefits had always been in place, and
- If the current assumptions had always been in place, and
- If the plan had always been funded under the current funding method, and
- If plan experience had always matched the assumptions, then

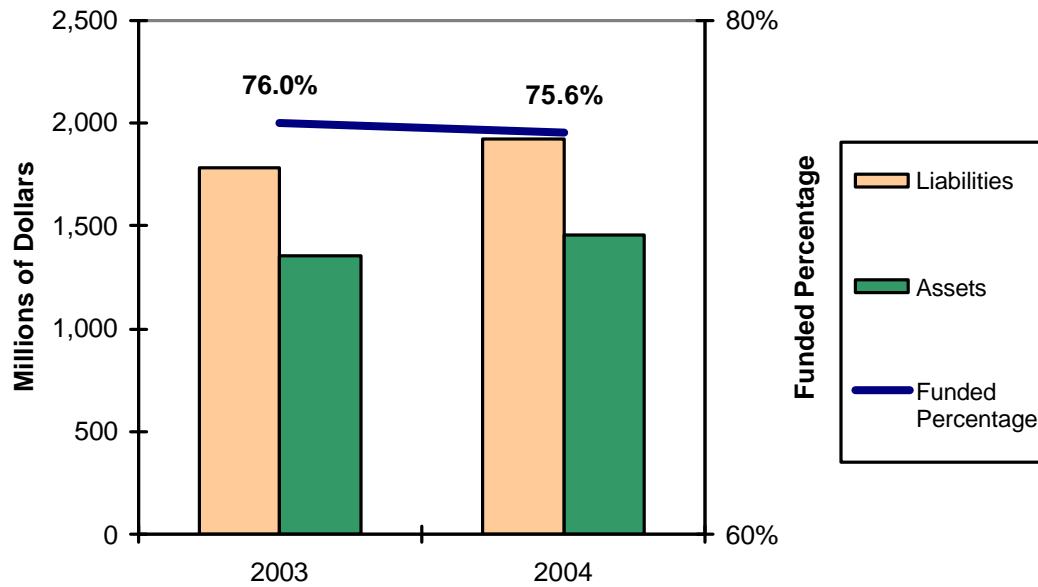
The Actuarial Value of Assets would be equal to the Actuarial Accrued Liability. It is the value often used as a funding target.

Current Funded Position

The following table shows the Plan's total funded percentage is 75.6%. It is calculated by dividing the Actuarial Value of Assets by the Actuarial Accrued Liability. The table below summarizes the development of funded percentage and compares it with the development of the funded percentage for the prior year.

	June 30, 2004	June 30, 2003
Actuarial Accrued Liability	\$1,921.3	\$1,781.5
Actuarial Value of Assets	<u>1,452.6</u>	<u>1,353.9</u>
Unfunded Actuarial Accrued Liability	468.7	427.6
Funded Percentage	75.6%	76.0%

Current Funded Position



Changes from the Prior Valuation

The funded percentage decreased from 76.0% as of June 30, 2003 to 75.6% as of June 30, 2004. Some of the reasons for the change in funded percentage include:

- **Normal Operation of the Plan.** Continuing to pay down the UAAL, along with expected growth in Plan assets and liabilities was projected to increase the funded percentage by 1.6%.
- **Investment Losses.** Despite a solid investment performance this year, the recognition of losses from prior years caused the assets recognized for valuation purposes to achieve a return less than the 8.0% assumed in the prior valuation. This caused the funded percentage to decrease by 1.3%.
- **Miscellaneous Losses.** Non-investment losses during the year decreased the Plan's funded percentage by 1.2%.
- **Assumption Changes.** During our initial review of the valuation process, we recommended some basic changes in the Plan's economic assumptions and some minor fine-tuning of the Plan's demographic assumptions. These changes slightly decreased the Plan's liabilities, increasing the funded percentage by 0.5%.

C. Employer Contribution Rates

Each year, recommended contribution rates are determined separately for members and employers. Employer contributions are determined as the sum of two elements: the Normal Cost and an Amortization of the Unfunded Actuarial Accrued Liability (UAAL).

The **Normal Cost (NC)** is the portion of the Present Value of Benefits attributed to the current year. In other words,

- If current plan benefits had always been in place, and
- If the current assumptions had always been in place, and
- If plan experience had always matched the assumptions, then

A contribution equal to the Normal Cost would be sufficient to keep the plan right on target, at 100% funding.

In the normal course of operating a retirement plan, there are a number of reasons why the plan may be someplace other than at 100% funding.

- **Plan Amendments** – These are changes in the benefits that are to be paid to plan members, such as the improvement to the 3%-at-50 plan for Safety members.
- **Assumption Changes** – Periodically, the plan actuaries and trustees adjust their expectation for the future. This year we are recommending changes to the investment return, inflation rate and salary scale.
- **Methodology Changes** – Every few years, the actuary recommends a refinement in its actuarial methodology. This might be a change in the method used to allocate plan liabilities or in the smoothing method used to determine the actuarial value of assets.
- **Gain or Loss** – Each year actual plan experience is different than the experience expected under the plan assumptions. When actual experience reduces the Unfunded Actuarial Accrued Liability, it is called a gain. When plan experience increases the Unfunded Actuarial Accrued Liability, it is called a loss.

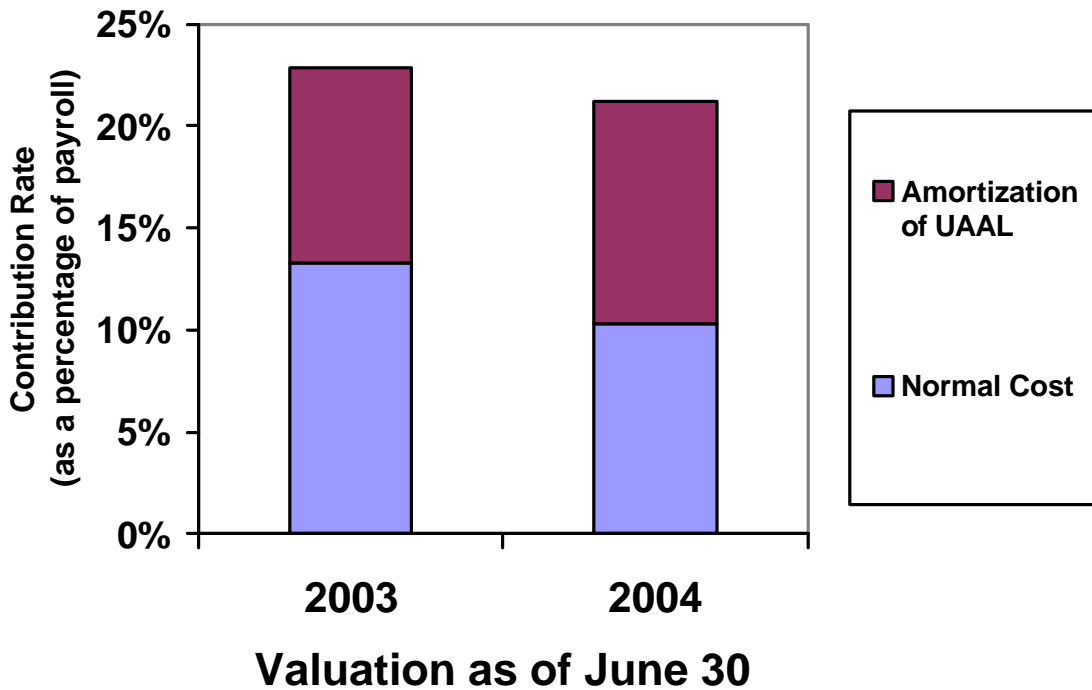
The amount that the funding is off target is added to the NC (when behind target) or reduced from the NC (when ahead of target) over a series of years.

Changes in UAAL are amortized as a level percentage of payroll over an eighteen-year period.

Average Contribution Rates

The average employer contribution rate is projected to decrease from 22.84% in the prior valuation to 21.22% in the current valuation. This is primarily due to a decrease in employer normal cost, as shown in the following table.

	June 30, 2004	June 30, 2003
Normal Cost	10.32%	13.32%
Amortization of UAAL	<u>10.90%</u>	<u>9.52%</u>
Total Contribution Rate	21.22%	22.84%
Dollar Amount of Contribution (in Thousands)	\$80,246	\$73,995



Plan Contribution Rates

Even though the average employer contribution rate decreased from the prior year, this does not mean that employer rates decreased consistently for each plan. There were some reallocations in contribution rates between plans due to changes in funding methodology and plan experience. The table below shows employer contribution rates from the current valuation and the prior valuation.

	June 30, 2004	June 30, 2003	% Increase (Decrease)
General			
<i>Plan 1</i>	30.32%	28.85%	5.1%
<i>Plan 2</i>	18.92%	19.84%	(4.6%)
<i>Plan 3</i>	17.39%	13.64%	27.5%
<i>Plan 4</i>	15.02%	16.33%	(8.0%)
<i>Total</i>	18.01%	19.12%	(5.8%)
Safety			
<i>Plan 1</i>	68.05%	51.66%	31.7%
<i>Plan 2</i>	39.91%	42.67%	(6.5%)
<i>Plan 4</i>	31.41%	37.78%	(16.9%)
<i>Total</i>	40.16%	42.74%	(6.0%)
Probation			
<i>Plan 1</i>	42.36%	49.33%	(14.1%)
<i>Plan 2</i>	34.48%	39.13%	(11.9%)
<i>Plan 4</i>	27.63%	29.69%	(6.9%)
<i>Total</i>	31.45%	35.63%	(11.7%)
All Plans	21.22%	22.84%	(7.1%)

The increase in contribution rates for General Plan 1 and Safety Plan 1 are mostly due to the drop in the payroll for these plans. Since these are closed plans, the remaining UAAL is being spread over a decreasing payroll, causing the rate, as a percentage of that payroll, to increase. If the methodology is not adjusted, this is projected to continue in future years.

The contribution rate for General Plan 3 increased due to methodology adjustments from the prior actuary. This caused the normal cost to increase as a percentage of payroll.

D. Member Contribution Rates

Each year, recommended contribution rates are determined separately for members and employers. Member contributions are made up of two components: Basic Contributions, and Supplemental Contributions.

- **Basic Contributions** are amounts, defined in the County Employees Retirement Law of 1937 (1937 Act), that are generally designed to pay for approximately one-half of the Regular Benefit that the member is projected to receive if he or she retires at the normal retirement age. Basic contribution rates are calculated as a percentage of the member's pay, on the basis of the member's age at entry into System, the classification of the member, the Plan's economic assumptions and the member's life expectancy at the retirement age specified for this purpose in the 1937 Act. Basic Contribution rates do not vary from year-to-year based on demographic or investment experience.
- **COL Contributions** are defined in Article 16.5 of the 1937 Act and are designed to help pay for the Cost of Living (COL) Benefit. Members are not required to pay COL Contributions to SamCERA. The COL benefit is paid by the employer.
- **Supplemental Contributions** are additional contributions agreed to through collective bargaining to help pay for the additional cost associated with improving the retirement formula.

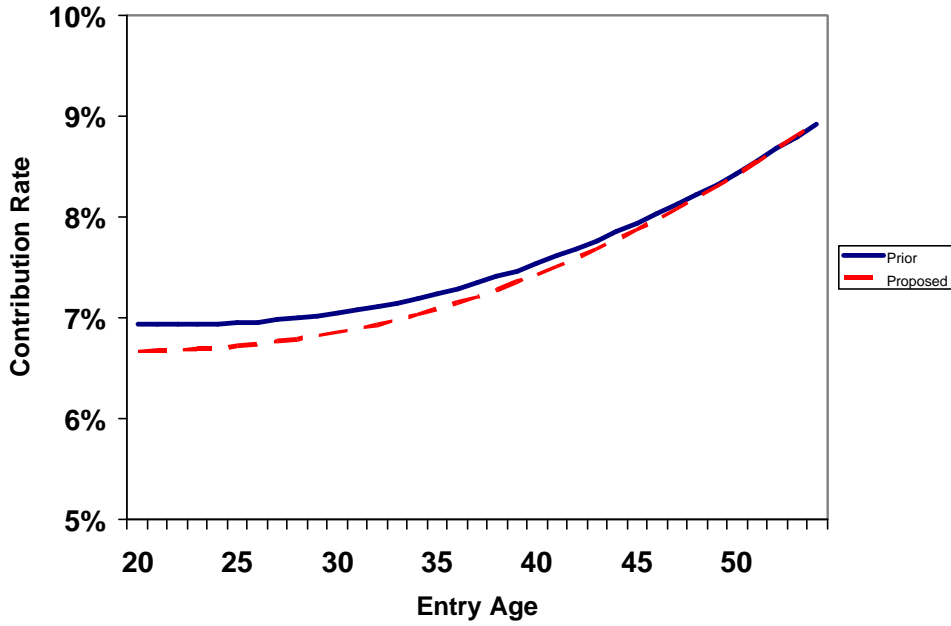
Basic Contributions

Since the prior valuation, there have been changes to the Basic Contribution Rates for SamCERA Members. The rates have changed slightly since the prior valuation due to changes in the salary increase assumption. Overall, we estimate the average Basic Contribution Rate for the coming year to be approximately 7.09% of payroll. This is a decrease from the 8.38% rate estimated for the prior year. The decrease in the average rate is likely due to changes in the mix of active members covered by each plan. The Basic Contribution Rates are shown in Section G (for General Members), Section I (for Safety Members) and Section K (for Probation Members) of the Technical Information portion of this report.

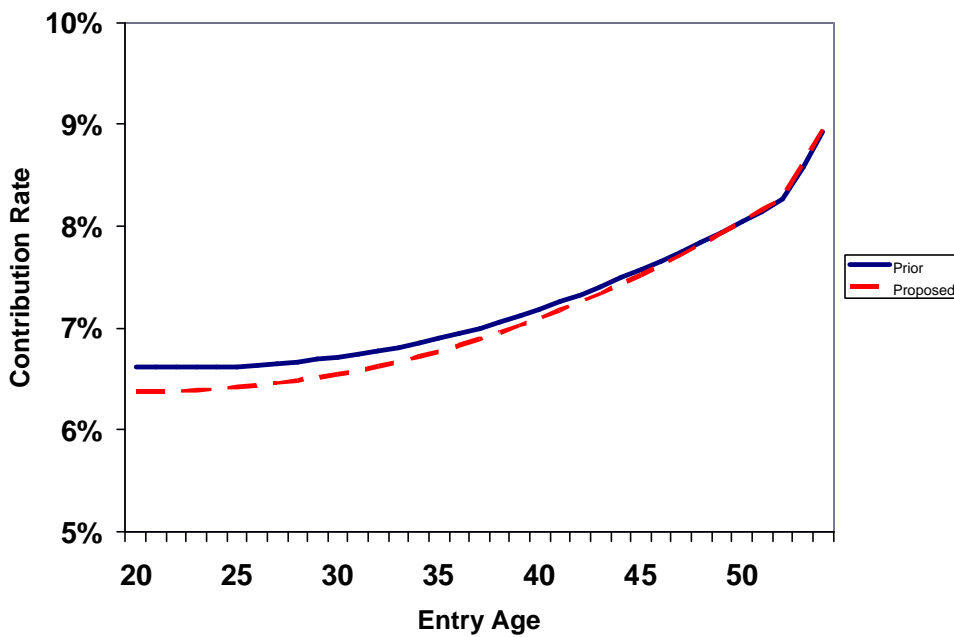
General Members

The Basic contribution rates required of General Members are projected to average 6.88% of covered pay. These rates are generally slightly lower than those that were required in the past year due to the decrease in the expected salary growth, as are shown in the following graphs.

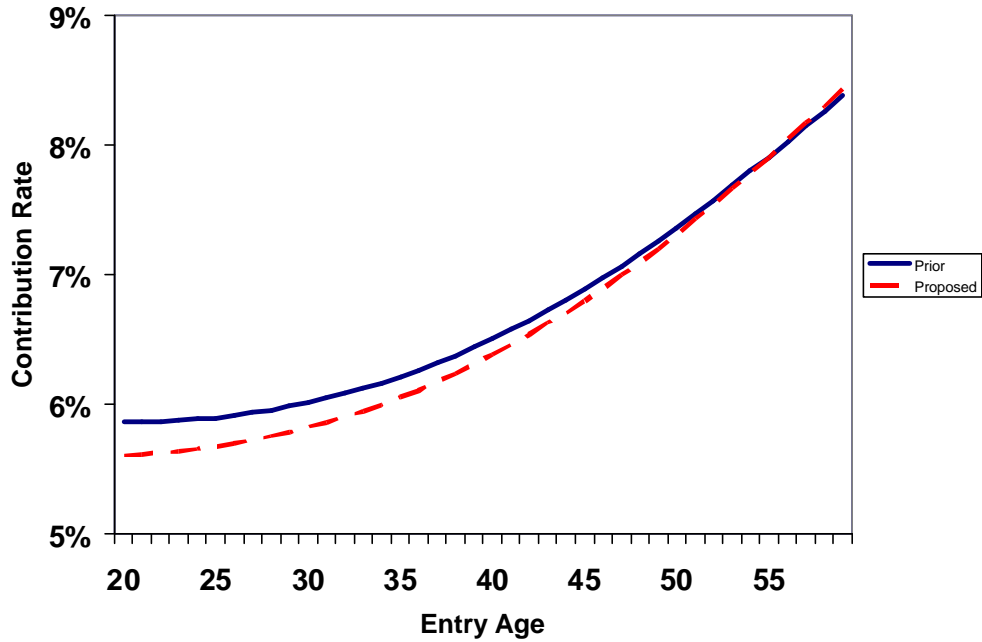
Comparison of Basic Contribution Rates General Plan 1 & Plan 2



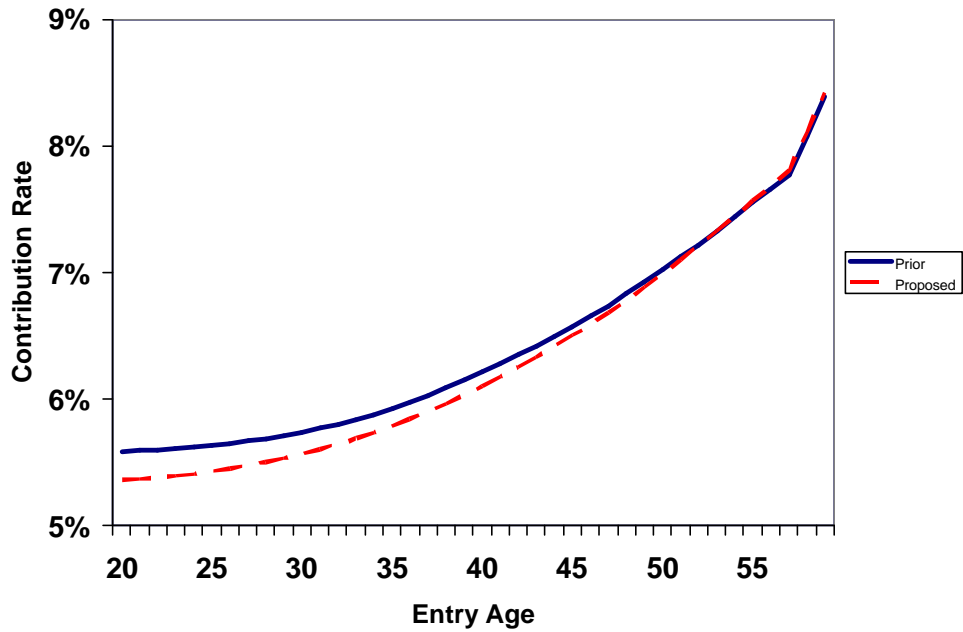
Comparison of Basic Contribution Rates General Plan 4



Comparison of Basic Contribution Rates Mosquito District Plan 1 & Plan 2



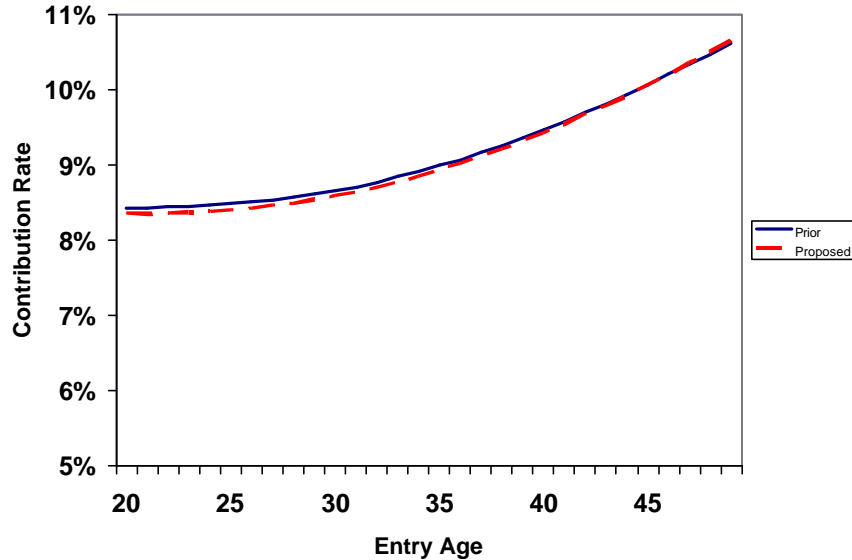
Comparison of Basic Contribution Rates Mosquito District Plan 4



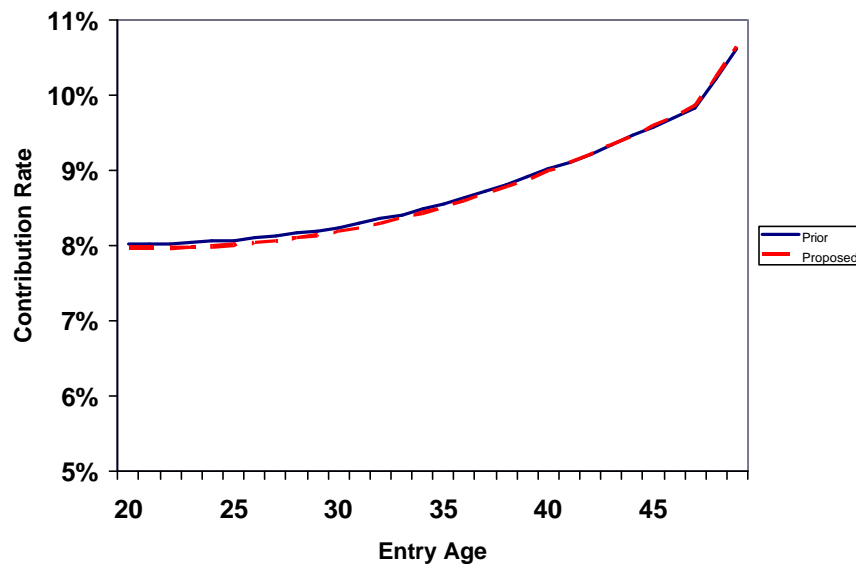
Safety Members

The Basic contribution rates required of Safety Members are projected to average 8.53% of covered pay. These rates are generally slightly lower than those that were required in the past year due to the decrease in the expected salary growth, as are shown in the following graphs.

Comparison of Basic Contribution Rates
Safety Plan 1 & Plan 2



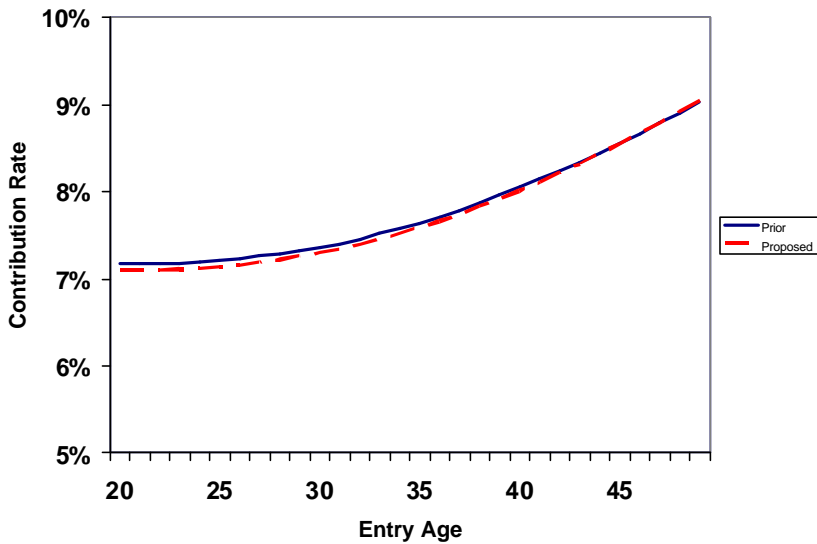
Comparison of Basic Contribution Rates
Safety Plan 4



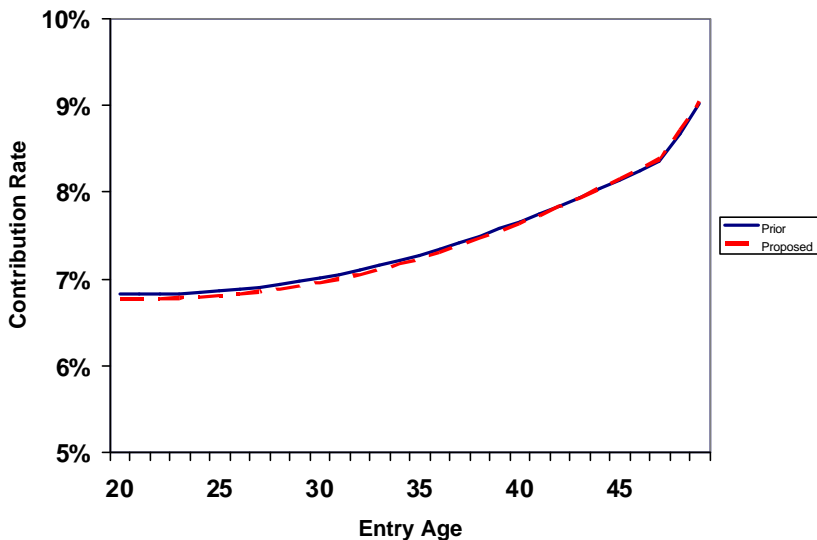
Probation Members

The Basic contribution rates required of Probation Members are projected to be 7.25% of covered pay. These rates are the same as those paid by Safety Members, except that the employer picks up 15% of the contribution for Probation Members. As was the case for Safety Members, the rates for Probation Members are generally slightly lower than those that were required in the past year due to the decrease in the expected salary growth, as are shown in the following graphs.

Comparison of Basic Contribution Rates
Probation Plan 1 & Plan 2



Comparison of Basic Contribution Rates
Probation Plan 4



Section
3 **Technical Information**

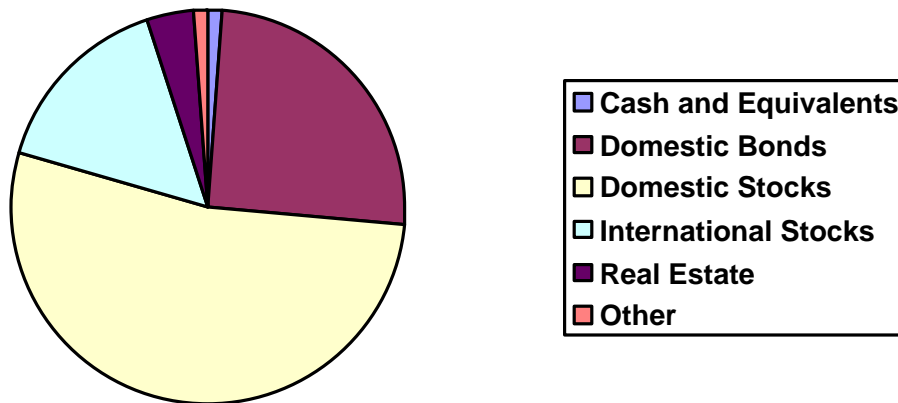
A. Asset Information

Net Plan Assets at Market Value as of June 30, 2004

	<i>Dollars</i>	%
Cash and Equivalents	\$ 16,292,775	1%
Domestic Bonds	375,186,833	26%
Domestic Stocks	768,511,724	54%
International Stocks	226,683,026	16%
Real Estate	58,213,649	4%
Other	<u>(9,528,584)</u>	<u>-1%</u>
Net Assets	\$1,435,359,423	100%

* Percentages may not add up to 100% due to rounding.

Asset Allocation on a Market Value Basis



Development of Actuarial Value of Assets

Development of Unexpected Gains and Losses

Six Month Period Ended	Market Value Beginning of Period	Contributions	Benefit Payments	Market Value End of Period	Assumed Rate of Return	Expected Return	Actual Return	Unexpected Gain (Loss)
6/30/2003	1,150,314,103	15,456,378	35,285,915	1,233,271,537	4.125%	46,952,400	102,786,971	55,834,571
12/31/2003	1,233,271,537	64,003,192	37,168,920	1,411,797,335	4.000%	50,651,708	151,691,527	101,039,818
6/30/2004	1,411,797,335	23,132,825	38,581,851	1,435,359,423	4.000%	56,040,580	39,011,113	(17,029,466)

Development of Market Stabilization Reserve

Six-Month Period Ended	Unexpected Gain (Loss)	Percent Recognized	Gain (Loss) Excluded
Prior Periods	(230,062,821)	33.3%	(153,375,214)
6/30/2003	55,834,571	30%	\$39,084,200
12/31/2003	101,039,818	20%	\$80,831,855
6/30/2004	(17,029,466)	10%	<u>(\$15,326,520)</u>
<i>Total</i>			<i>(48,785,679)</i>

Development of Valuation Assets

1. Market Value of Assets as June 30	\$1,435,359,423
2. Market Stabilization Reserve	<u>(48,785,679)</u>
3. Preliminary Actuarial Value: (1) – (2)	1,484,145,102
4. Corridor Around Market Value	
(a) Minimum = 80% of Market	1,148,287,538
(b) Maximum = 120% of Market	1,722,431,307
5. Gross Actuarial Value of Assets	1,484,145,102
6. Non-Valuation Reserves and Designations:	
a. Reserve for Interest Fluctuations	0
b. Medicare Part B Reserve	0
c. Ventura Reserve	<u>31,523,929</u>
d. Total	31,523,929
7. Valuation Assets (5) - (6)	1,452,621,173

Reconciliation of Assets for the Year Ended June 30, 2004

	Market Value	Valuation Assets
1. Value as of beginning of year	1,233,271,537	1,358,640,708
2. Contributions		
a. Employer	60,041,821	60,041,821
b. Employee	27,094,196	<u>27,094,196</u>
c. Total Contributions	87,136,017	87,136,017
3. Benefit Payments	(75,750,771)	(74,552,388)
4. Investment Income		
a. Interest and Dividends	12,673,292	
b. Realized and Unrealized Gains / Losses	184,592,243	
c. Other Additions	226,318	
d. Investment Expenses	<u>(4,158,687)</u>	
e. Net Investment Income	193,333,166	84,027,363
5. Administrative and other Expenses	(2,630,527)	(2,630,527)
6. Value as of end of year	1,435,359,423	1,452,621,173
7. Estimated Rate of Return	15.6%	6.2%

Allocation of Valuation Assets

	General	Safety	Probation	Total
Plan 1	649,380,276	218,916,392	46,265,550	914,562,218
Plan 2	465,726,707	81,705,103	23,001,720	570,433,530
Plan 3	17,786,558	0	0	17,786,558
Plan 4	<u>(24,162,773)</u>	<u>(19,122,274)</u>	<u>(6,876,086)</u>	<u>(50,161,133)</u>
Total	1,108,730,768	281,499,221	62,391,184	1,452,621,173

B. Liability Information

Present Value of Projected Benefits

Present Value of Projected Benefits – Basic

Benefits	Retirees and Beneficiaries	Deferred Vested Members	Active Members	All Members
A. General				
Plan 1	243,611,400	17,623,576	182,022,350	443,257,326
Plan 2	95,975,232	49,939,198	451,451,579	597,366,009
Plan 3	3,664,020	4,765,512	30,786,990	39,216,522
Plan 4	450,240	3,091,072	268,703,398	272,244,710
B. Safety				
Plan 1	100,450,932	4,141,563	49,114,071	153,706,566
Plan 2	14,777,028	4,753,259	114,350,620	133,880,907
Plan 4	-	274,702	49,844,848	50,119,550
C. Probation				
Plan 1	20,756,544	-	14,097,496	34,854,040
Plan 2	2,236,500	1,492,960	38,550,104	42,279,564
Plan 4	42,732	295,651	36,361,634	36,700,017
D. Total	481,964,628	86,377,493	1,235,283,090	1,803,625,211

Present Value of Projected Benefits – Basic and Cost of Living

Benefits	Retirees and Beneficiaries	Deferred Vested Members	Active Members	All Members
A. General				
Plan 1	441,959,784	17,623,576	239,240,385	728,697,697
Plan 2	137,467,944	49,939,198	580,494,155	767,901,297
Plan 3	3,664,020	4,765,512	30,786,990	39,216,522
Plan 4	579,288	3,091,072	318,804,877	322,475,237
B. Safety				
Plan 1	168,873,648	4,141,563	66,506,999	254,696,738
Plan 2	22,003,812	4,753,259	152,281,653	179,038,724
Plan 4	-	274,702	60,952,158	61,226,860
C. Probation				
Plan 1	30,731,268	-	18,948,522	52,467,774
Plan 2	3,219,240	1,492,960	50,847,537	55,559,737
Plan 4	52,212	295,651	44,165,297	44,513,460
D. Total	856,387,980	86,377,493	1,563,028,573	2,505,794,046

Actuarial Accrued Liability

Actuarial Accrued Liability – Basic

Benefits	Retirees and Beneficiaries	Deferred Vested Members	Active Members	All Members
A. General				
Plan 1	243,611,400	17,623,576	166,038,062	427,273,038
Plan 2	95,975,232	49,939,198	323,700,853	469,615,283
Plan 3	3,664,020	4,765,512	17,788,539	26,218,071
Plan 4	450,240	3,091,072	60,616,978	64,158,290
B. Safety				
Plan 1	100,450,932	4,141,563	46,600,116	151,192,611
Plan 2	14,777,028	4,753,259	85,246,210	104,776,497
Plan 4	0	274,702	11,714,772	11,989,474
C. Probation				
Plan 1	20,756,544	0	13,201,911	33,958,455
Plan 2	2,236,500	1,492,960	26,153,124	29,882,584
Plan 4	42,732	295,651	8,531,873	8,870,256
D. Total	481,964,628	86,377,493	759,592,438	1,327,934,559

Actuarial Accrued Liability – Basic and Cost of Living

Benefits	Retirees and Beneficiaries	Deferred Vested Members	Active Members	All Members
A. General				
Plan 1	441,959,784	17,623,576	218,374,377	707,831,689
Plan 2	137,467,944	49,939,198	416,785,730	604,192,872
Plan 3	3,664,020	4,765,512	17,788,539	26,218,071
Plan 4	579,288	3,091,072	72,267,580	75,937,940
B. Safety				
Plan 1	168,873,648	4,141,563	63,043,016	251,232,755
Plan 2	22,003,812	4,753,259	113,436,372	140,193,443
Plan 4	0	274,702	14,332,620	14,607,322
C. Probation				
Plan 1	30,731,268	0	17,731,247	51,250,499
Plan 2	3,219,240	1,492,960	34,449,463	39,161,663
Plan 4	52,212	295,651	10,354,089	10,702,252
D. Total	856,387,980	86,377,493	978,563,033	1,921,328,506

Normal Cost

Employer Normal Cost – Basic

	Dollar Amount	Percent of Payroll
A. General		
Plan 1	1,977,945	7.84%
Plan 2	8,211,885	6.45%
Plan 3	1,084,489	10.56%
Plan 4	8,995,907	6.43%
B. Safety		
Plan 1	415,987	8.55%
Plan 2	1,947,708	9.56%
Plan 4	1,244,271	8.34%
C. Probation		
Plan 1	239,209	13.53%
Plan 2	839,138	10.90%
Plan 4	1,138,585	10.19%
D. Total	26,095,124	7.18%

Normal Cost – Basic and Cost of Living

	Dollar Amount	Percent of Payroll
A. General		
Plan 1	2,972,810	11.78%
Plan 2	12,783,737	10.04%
Plan 3	1,084,489	10.56%
Plan 4	12,698,797	9.08%
B. Safety		
Plan 1	756,894	15.56%
Plan 2	3,428,275	16.83%
Plan 4	1,975,883	13.24%
C. Probation		
Plan 1	346,308	19.58%
Plan 2	1,340,036	17.41%
Plan 4	1,650,178	14.77%
D. Total	39,037,407	10.74%

C. Funded Percentage

Development of UAAL and Funded Percentage

<i>Benefits</i>	<i>Actuarial Accrued Liability</i>	<i>Valuation Assets</i>	<i>UAAL</i>	<i>Funded Percentage</i>
A. General				
Plan 1	707,831,689	649,380,276	58,451,413	91.7%
Plan 2	604,192,872	465,726,707	138,466,165	77.1%
Plan 3	26,218,071	17,786,558	8,431,513	67.8%
Plan 4	75,937,940	(24,162,773)	100,100,713	-31.8%
Total	1,414,180,572	1,108,730,768	305,449,804	78.4%
B. Safety				
Plan 1	251,232,755	218,916,392	32,316,363	87.1%
Plan 2	140,193,443	81,705,103	58,488,340	58.3%
Plan 4	14,607,322	(19,122,274)	33,729,596	-130.9%
Total	406,033,520	281,499,221	124,534,299	69.3%
C. Probation				
Plan 1	51,250,499	46,265,550	4,984,949	90.3%
Plan 2	39,161,663	23,001,720	16,159,943	58.7%
Plan 4	10,702,252	(6,876,086)	17,578,338	-64.2%
Total	101,114,414	62,391,184	38,723,230	61.7%
D. Total	1,921,328,506	1,452,621,173	468,707,333	75.6%

Comparison of Current and Prior Year UAAL

Benefits	June 30, 2004	June 30, 2003	% Increase (Decrease)
A. General			
Plan 1	58,451,413	53,003,732	10.3%
Plan 2	138,466,165	128,839,654	7.5%
Plan 3	8,431,513	8,164,169	3.3%
Plan 4	100,100,713	91,491,523	9.4%
Total	305,449,804	281,499,078	8.5%
B. Safety			
Plan 1	32,316,363	27,844,738	16.1%
Plan 2	58,488,340	52,818,544	10.7%
Plan 4	33,729,596	30,461,020	10.7%
Total	124,534,299	111,124,302	12.1%
C. Probation			
Plan 1	4,984,949	4,379,413	13.8%
Plan 2	16,159,943	14,692,651	10.0%
Plan 4	17,578,338	15,907,359	10.5%
Total	38,723,230	34,979,423	10.7%
D. Total	468,707,333	427,602,803	9.6%

D. Employer Contribution Rates

General

	Plan 1	Plan 2	Plan 3	Plan 4	Total
1. Normal Cost	2,972,810	12,783,737	1,084,489	12,698,797	29,539,833
2. UAAL Amortization Payment					
a) Basic UAAL	58,451,413	138,466,165	8,431,513	100,100,713	305,449,804
b) Amortization Factor – 18 Years	13.31212	13.31212	13.31212	13.31212	13.31212
c) Amortization Payment = (a) / (b)	4,390,843	10,401,513	633,371	7,519,519	22,945,246
3. Preliminary Contribution = (1) + (2c)	7,363,653	23,185,250	1,717,860	20,218,316	52,485,079
4. Interest for Payments during year	288,880	909,569	67,392	793,174	2,059,015
5. Adjustment for payment during next fiscal year	306,101	963,793	71,410	840,460	2,181,764
6. Required Contribution = (3) + (4) + (5)					
a) Dollar Amount	7,958,634	25,058,612	1,856,662	21,851,950	56,725,858
b) Percentage of Payroll	30.32%	18.92%	17.39%	15.02%	18.01%

Allocation of Contribution Rate

	Plan 1	Plan 2	Plan 3	Plan 4	Total
Normal Cost	11.78%	10.04%	10.56%	9.08%	9.76%
UAAL Amortization Payment	18.54%	8.88%	6.83%	5.94%	8.25%
Total Contribution Rate	30.32%	18.92%	17.39%	15.02%	18.01%

Mosquito Abatement District Contribution Rate

	Plan 1	Plan 2	Plan 3	Plan 4
Total Contribution Rate	24.42%	13.92%	17.39%	10.69%

Contribution for the Plan 1, 2 and 4 for the District have been calculated proportionally to this year's County rates based on the ratio of contribution rates in the prior year's valuation.

Safety

	Plan 1	Plan 2	Plan 4	Total
1. Normal Cost	756,894	3,428,275	1,975,883	6,161,052
2. UAAL Amortization Payment				
a) COLA UAAL	32,316,363	58,488,340	33,729,596	124,534,299
b) Amortization Factor	13.31212	13.31212	13.31212	13.31212
c) Amortization Payment = (a) / (b)	2,427,590	4,393,617	2,533,751	9,354,958
3. Preliminary Contribution = (1) + (2c)	3,184,484	7,821,892	4,509,634	15,516,010
4. Interest for Payments during year	124,929	306,857	176,915	608,701
5. Adjustment for payment during next fiscal year	132,377	325,150	187,462	644,989
6. Required Contribution = (3) + (4) + (5)				
a) Dollar Amount	3,441,790	8,453,899	4,874,011	16,769,700
b) Percentage of Payroll	68.05%	39.91%	31.41%	40.16%

Allocation of Contribution Rate

	Plan 1	Plan 2	Plan 4	Total
Normal Cost	15.56%	16.83%	13.24%	15.34%
UAAL Amortization Payment	52.49%	23.08%	18.17%	24.82%
Total Contribution Rate	68.05%	39.91%	31.41%	40.16%

Probation

	Plan 1	Plan 2	Plan 4	Total
1. Normal Cost	346,308	1,340,036	1,650,178	3,336,522
2. UAAL Amortization Payment				
a) COLA UAAL	4,984,949	16,159,943	17,578,338	38,723,230
b) Amortization Factor	13.31212	13.31212	13.31212	13.31212
c) Amortization Payment = (a) / (b)	374,467	1,213,927	1,320,476	2,908,870
3. Preliminary Contribution = (1) + (2c)	720,775	2,553,963	2,970,654	6,245,392
4. Interest for Payments during year	28,276	100,193	116,540	245,009
5. Adjustment for payment during next fiscal year	29,962	106,166	123,488	259,616
6. Required Contribution = (3) + (4) + (5)				
a) Dollar Amount	779,013	2,760,322	3,210,682	6,750,017
b) Percentage of Payroll	42.36%	34.48%	27.63%	31.45%

Allocation of Contribution Rate

	Plan 1	Plan 2	Plan 4	Total
Normal Cost	19.58%	17.41%	14.77%	16.17%
UAAL Amortization Payment	22.78%	17.07%	12.86%	15.28%
Total Contribution Rate	42.36%	34.48%	27.63%	31.45%

E. Comprehensive Annual Financial Report (CAFR)

A list of supporting schedules we prepared for inclusion in the actuarial and financial sections of the Association's CAFR report is provided below:

1. Schedule of Assumptions and Methods;
2. Schedule of Employer and Member Contribution Rates;
3. Schedules of Pertinent Membership and Financial Information Used in the Valuation;
4. Solvency Test;
5. Schedule of Funding Progress; and
6. Actuarial Analysis of Financial Experience.

Actuarial Assumptions and Cost Method

Valuation Date	June 30, 2004
Actuarial Cost Method	Entry Age
Amortization Method	Level Percent – open group
Remaining Amortization Period	18 years
Asset Valuation Method	5-year smoothed market
Actuarial Assumptions:	
Investment Rate of Return	8.00%
Projected Salary Increases*	6.00%
*Attributed to Inflation	4.00%
*Attributed to Adjustments for Merit and longevity	2.00%

Cost of Living Adjustments: The maximum increase in retirement allowance is:

- 5% for General and Safety Plan 1,
- 3% for Probation Plan 1 and Plan 2, and
- 2% for Plan 4 Members.

The maximums are based on the change in the Consumer Price Index for the Bay Area.

Summary of Employer and Member Contribution Rates

Employer Contribution Rates

	06/30/04	6/30/03	Change
Normal Cost Rate	10.32%	13.32%	-22.52%
Rate of Contribution to Unfunded Actuarial Accrued Liability	1.090%	9.52%	14.50%
Total Employer Rate	21.22%	22.84%	-7.09%
Estimated Annual Amount in Thousands	\$80,246	\$73,995	8.45%

The employer contribution rates determined in the June 30, 2003 and June 30, 2004 actuarial valuations are effective for the fiscal years beginning July 1, 2004 and July 1, 2005, respectively. The rates calculated in the June 30, 2004 actuarial valuation include cost sharing.

Member Contribution Rates

		7/1/2005	3/15/2005	7/1/2004	Change
General Members (Plans 1 & Plan 2)					
Age	25	6.72%	6.95%	5.90%	0.82%
	35	7.09%	7.24%	6.22%	0.87%
	45	7.88%	7.97%	6.89%	0.99%
General Members (Plan 4)					
Age	25	6.42%	6.62%	5.63%	0.79%
	35	6.77%	6.90%	5.93%	0.84%
	45	7.52%	7.57%	6.57%	0.95%
Safety Members (Plans 1 & Plan 2)					
Age	21	8.35%	8.43%	8.43%	-0.08%
	25	8.40%	8.48%	8.48%	-0.08%
	30	8.59%	8.66%	8.66%	-0.07%
Safety Members (Plan 4)					
Age	21	7.97%	8.02%	8.02%	-0.05%
	25	7.99%	8.07%	8.07%	-0.08%
	30	8.19%	8.24%	8.24%	-0.05%
Probation Members (Plans 1 & Plan 2)					
Age	21	7.10%	7.17%	7.17%	-0.07%
	25	7.14%	7.21%	7.21%	-0.07%
	30	7.30%	7.36%	7.36%	-0.06%
Probation Members (Plan 4)					
Age	21	6.77%	6.82%	6.82%	-0.05%
	25	6.81%	6.86%	6.86%	-0.05%
	30	6.96%	7.00%	7.00%	-0.04%

The member rates above do not reflect changes in cost sharing and employer pickup arrangements effective after June 30, 2002. The details regarding cost sharing and employer pickup arrangements are discussed in the Summary of Major Plan Provision section.

The change column reflects the difference between the 7/1/2004 and 7/1/2005 rates.

Short -Term Solvency Test

	(1) Active Member Contributions (000s)	(2) Liability For Inactive Participants (000s)	(3) Liability for Active Members (Employer Financed Portion) (000s)	Valuation Assets (000s)	Portion of Accrued Liability Covered by Valuation Assets		
					(1)	(2)	(3)
6/30/95	107,385	507,002	343,441	663,629	100%	100%	14%
6/30/96	115,910	537,129	333,863	752,110	100%	100%	30%
6/30/97	130,736	565,593	351,246	866,823	100%	100%	49%
6/30/98	148,753	601,473	353,844	992,314	100%	100%	68%
6/30/99	157,826	629,653	416,489	1,104,833	100%	100%	76%
6/30/00	158,314	689,356	444,024	1,271,565	100%	100%	95%
6/30/01	174,066	789,104	440,890	1,384,586	100%	100%	96%
6/30/02	190,450	866,985	785,082	1,416,850	100%	100%	46%
6/30/03	202,551	858,273	915,108	1,353,941	100%	100%	32%
6/30/04	259,731	942,765	718,832	1,452,621	100%	100%	35%

Schedule of Funding Progress

(Dollars in Thousands)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / (c))
6/30/95	651,217	945,417	294,200	68.9%	188,822	155.81%
6/30/96	728,369	963,162	234,792	75.6%	187,926	124.94%
6/30/97	856,679	1,037,431	180,752	82.6%	196,391	92.00%
6/30/98	992,314	1,104,070	111,756	89.9%	211,259	52.90%
6/30/99	1,109,417	1,205,554	96,137	92.0%	238,864	40.20%
6/30/00	1,271,565	1,291,694	20,129	98.4%	259,075	7.80%
6/30/01	1,384,586	1,404,060	19,474	98.6%	274,318	7.10%
6/30/02	1,416,821	1,660,566	243,745	85.3%	301,891	80.7%
6/30/03	1,353,941	1,781,544	427,603	76.0%	323,896	132.0%
6/30/04	1,452,621	1,921,328	468,707	75.6%	365,385	128.3%

Actuarial Analysis of Financial Experience

Summary of (Gains)/Losses	Change In Liability (in 000s)				
	2004	2003	2002	2001	2000
Unfunded Liability as of July 1	427,603	243,745	19,474	20,129	96,137
Expected Change in UAAL	(419)	20,884	(2,125)	(700)	(3,535)
Salary (Gain)/Loss		(4,907)	(3,400)	8,134	7,766
Fewer Withdrawal than expected		1,268	425		
Liability corrections for part timers					
Retiree COLA more/(less) than expected		(13,863)	8,499	1,502	(1,356)
Assets (Gain)/Loss	25,062	169,944	34,881	(12,157)	(71,409)
Change due to Assumptions Changes	(13,989)	(7,797)	32,979		
Change due to Actuarial Asset Corridor			31,919		
Miscellaneous Experience	30,450	(5,138)	1,580	2,566	(7,474)
Change Due to New Formula		23,467	119,513		
Unfunded Liability as of June 30	468,707	427,603	243,745	19,474	20,129

F. Summary of Major Plan Provisions – General Members

Membership:

Employees hired after July 6, 1980, but on or before July 12, 1997 become members under Plan 2. Employees hired after July 12, 1997 become members of Plan 4. General members are given the option to elect non-contributory General Plan 3. General Plan 3 members can elect membership under the open contributory plan after 5 years of service. Members with Plan 3 service who are currently in a contributory plan may purchase an upgrade of their Plan 3 service.

Final Average Salary (FAS):

Final average salary (FAS) is defined as the highest 12 consecutive months of compensation earnable for General Plan 1 and 2 members. FAS of General Plan 3 and Plan 4 members are based on the highest three years average monthly salary. The individual years need not be consecutive.

Service Retirement

Eligibility:

1. Plan 1, Plan 2, and Plan 4

Members with 10 years of service who have attained the age of 50 are eligible to retire. Members with 30 years of service, regardless of age, are eligible to retire.

2. Plan 3

Members with 10 years of service, who have attained the age of 55 are eligible to retire.

Benefit:

1. Plan 1, Plan 2, and Plan 4

The benefit is a percentage of monthly FAS per year of service, depending on age at retirement and is illustrated below for typical ages under both the current and new formulas.

**Percentage of Final Average Salary
 (rounded) – New Formula**

Age	General Section 31676.16 Current	General Section 31676.14 March 2005
50	1.43%	1.48%
55	2.00%	1.95%
60	2.26%	2.44%
62	2.37%	2.61%
65	2.43%	2.61%

and
 over

For members of the Mosquito Abatement District, their benefits are under Section 31676.1

2. Plan 3

The percentage of monthly FAS per year of service, depending on age at retirement, is illustrated below for typical ages.

Age	Percentage*
55	0.74%
60	1.20%
62	1.46%
65 and over	2.00%

* One-half of these percentages are credited for years of service over 35. Percentages for ages below 65 are actuarially reduced and may change from time to time.

Early Retirement Adjustment Factor: For Plan 3 members only, the adjustment factor for benefit commencing at age other than 65. Sample factors:

Age	ERA Factor
55	.39
56	.43
57	.47
58	.51
59	.56
60	.61
61	.67
62	.74
63	.82
64	.90

Integration with Social Security (Plan 3):

The benefit arrived at by using the percentages shown above for Plan 3 will be reduced by using a Social Security offset formula shown below:

Social Security Offset = 1/35 times County years of service times P.I.A. at age 65 (not greater than 100% P.I.A. where P.I.A. is the Primary Insurance Amount from Social Security).

Maximum Benefit:

The maximum basic benefit payable to a member or beneficiary under Plan 1, Plan 2, and Plan 4 is 100% of FAS.

The maximum (Plan 3 and P.I.A. combined) is 70% of final average salary for years of service less than 35 and is 80% of FAS for years of service greater than 35.

Normal Form of Benefit:

1. Plan 1, Plan 2 and Plan 4

Life annuity; 60% of the member's allowance is continued to the eligible surviving spouse for life.

2. Plan 3

Life annuity; 50% of the member's allowance is continued to the eligible surviving spouse for life.

Non-service Connected Disability

Eligibility:	5 years of service regardless of age.
Disabled Definition:	Unable to perform their own job.
Benefit:	<ol style="list-style-type: none"> Plan 1, Plan 2, and Plan 4 <p>The benefit is 1.5% of FAS for each year of service. If this benefit does not equal 1/3 of FAS, the benefit is increased by the above percentage of FAS for the years of which would have been credited to age 65 for General members. The total benefit in this case cannot exceed one-third of FAS.</p> <ol style="list-style-type: none"> Plan 3 <p>There is no disability benefit payable under the Retirement Plan until the member reaches 65. At that time, the benefit is calculated as a service retirement benefit and is calculated to incorporate years of service while disabled.</p>
Normal Form of Benefit:	Life annuity; 60% continuance to eligible spouse after death of member. If there is no eligible surviving spouse, the benefit is paid to eligible children.

Service Connected Disability

Eligibility:	First day of work
Disabled Definition:	Disability is substantially caused by employment and unable to perform his or her own job.

Benefit:

1. Plan 1, Plan 2, and Plan 4

The member may retire regardless of length of service, with a benefit of 50% of FAS.

2. Plan 3

There is no disability benefit payable under the Retirement Plan until the member reaches 65. At that time, the benefit is calculated as a service retirement benefit and is calculated to incorporate years of service while disabled.

Normal Form of Benefit:

Life annuity; 60% continuance to spouse after death of member. If there is no surviving spouse, the benefit is paid to eligible children.

Non-service Connected Death

Before eligible for Non-service Connected Disability or Service Retirement:

1. Plan 1, Plan 2, and Plan 4

Refund of employee contributions with interest, plus a lump sum death benefit equal to 1 month's salary for each full year of service (maximum 6 months' salary).

2. Plan 3

No benefit is payable under the Retirement Plan on death before retirement.

**After eligible for Non-service
Connected Disability or Service
Retirement:**

1. Plan 1, Plan 2, and Plan 4

The Regulations of the Board of Retirement provide an eligible spouse with a monthly allowance equal to the Option 2 100 % survivor continuance allowance that the member would have been eligible to receive for retirement on the day of his or her death. We have taken the value of the Option 2 benefit election in our valuation.

2. Plan 3

No benefit is payable under the Retirement Plan on death before retirement.

Deferred Service Retirement**Eligibility:**

5 years of service (including service with reciprocal systems).

Additional requirement:

Must leave contributions on deposit.

Benefit:

Same as service retirement benefit after 10 years of membership, including 5 years of service.

FAS:

If reciprocity provisions apply, includes compensation earned at reciprocal agency.

Normal Form of Benefit:

Same as service retirement benefit.

Withdrawal**Eligibility:**

First day of work.

Other Requirement:

Forfeits right to receive other benefit from retirement system.

Benefit:

Accumulated contributions with interest.

Form of Benefit:

Lump sum.

Cost of Living Benefits

Timing:	Annually, effective April 1 for all those who retired on or before April 1. Based on the annual average change in the Consumer Price Index (CPI) for the San Francisco-Oakland-San Jose area for the preceding calendar year.
Maximum:	The maximum increase in retirement allowance for General Plan 1 is 5% per year; for Plan 2 is 3 % per year and for Plan 4 it is 2% per year. Plan 1 has a COLA bank. Plan 3 does not provide any cost-of-living increases.

Member Contributions

Basic:	Member basic rates are based on a formula reflecting the age at entry in to the Association. The rates under the current formula (Section 31676.16 for County and 31676.1 for Mosquito Abatement District) are such to provide an average annuity at age 60 of 1/120 of final average salary for General members under Plan 1, Plan 2, and Plan 4 members. When the 2 percent at 55.5 formula (Section 31676.14) goes into effect in March, 2004, the General contributions will be such as to provide an average annuity at age 55 of 1/120 of final average salary.
COLA:	Members do not contribute towards the cost of living benefit.

Cost Sharing:

For the new formula, General members will share in 1%, 2%, and 3% of the employers' contributions, effective August 30, 2003, August 28, 2004, and March 13, 2005, respectively.

Our employer contribution rates take these cost sharing provisions into account. The member contribution rates shown in the next section do not include these cost sharing arrangements.

If a General member retires at age 65 or older during the period that the new formula (Section 31676.16) is in effect, the member will (a) receive a refund of "Sharing Formula contributions" and interest thereon and (b) receive the higher benefit under the old formula.

Employer Pick-Up:

The county provides a variety of refundable service-based employer pick-up of member contributions programs for members in several of its unions. The County also pays 100% of management employees' and unrepresented attorneys' contributions and 50% of confidential employees' contributions on a refundable basis.

As instructed by the Association, the employer rates have not been adjusted to reflect the payment of any of the refundable employer pick-up of member contributions programs because the County payroll system captures these costs on a pay-as-you-go basis while processing each individual's biweekly pay.

Other Provisions:

Rates based on age at entry into the Association.

G. Member Contribution Rates – General Members

Member contribution rates are calculated as a percentage of the member's pay, on the basis of the member's age at entry into System, the classification of the member, the Plan's economic assumptions and the member's life expectancy at the retirement age specified for this purpose in the County Employees Retirement Law of 1937 (1937 Act). The rates shown in this report do not take into account the cost sharing arrangements described in the prior section.

Plan 1 & Plan 2

Age	County	Mosquito Abatement District	Age	County	Mosquito Abatement District
20	6.67%	5.61%	41	7.51%	6.46%
21	6.68%	5.62%	42	7.60%	6.54%
22	6.68%	5.63%	43	7.69%	6.63%
23	6.69%	5.64%	44	7.78%	6.71%
24	6.70%	5.66%	45	7.88%	6.80%
25	6.72%	5.68%	46	7.98%	6.90%
26	6.74%	5.70%	47	8.08%	7.00%
27	6.77%	5.73%	48	8.19%	7.10%
28	6.79%	5.76%	49	8.31%	7.20%
29	6.82%	5.79%	50	8.43%	7.31%
30	6.86%	5.83%	51	8.55%	7.43%
31	6.89%	5.86%	52	8.68%	7.55%
32	6.93%	5.91%	53	8.81%	7.67%
33	6.98%	5.95%	54	8.95%	7.79%
34	7.03%	6.00%	55	8.95%	7.91%
35	7.09%	6.06%	56	8.95%	8.04%
36	7.15%	6.11%	57	8.95%	8.17%
37	7.21%	6.18%	58	8.95%	8.30%
38	7.28%	6.24%	59 and up	8.95%	8.43%
39	7.36%	6.31%			
40	7.43%	6.39%			

General Members - Plan 4

Age	County	Mosquito Abatement District	Age	County	Mosquito Abatement District
20	6.37%	5.36%	41	7.18%	6.18%
21	6.38%	5.37%	42	7.26%	6.25%
22	6.38%	5.38%	43	7.34%	6.33%
23	6.39%	5.39%	44	7.43%	6.42%
24	6.40%	5.41%	45	7.52%	6.50%
25	6.42%	5.43%	46	7.62%	6.59%
26	6.44%	5.45%	47	7.72%	6.69%
27	6.46%	5.48%	48	7.82%	6.79%
28	6.49%	5.51%	49	7.93%	6.89%
29	6.52%	5.54%	50	8.05%	6.99%
30	6.55%	5.57%	51	8.17%	7.10%
31	6.58%	5.61%	52	8.29%	7.21%
32	6.62%	5.65%	53	8.61%	7.33%
33	6.67%	5.69%	54	8.95%	7.44%
34	6.71%	5.74%	55	8.95%	7.56%
35	6.77%	5.79%	56	8.95%	7.68%
36	6.83%	5.84%	57	8.95%	7.81%
37	6.89%	5.90%	58	8.95%	8.11%
38	6.95%	5.97%	59 and up	8.95%	8.43%
39	7.02%	6.03%			
40	7.10%	6.10%			

H. Summary of Major Plan Provisions – Safety Members

Membership:

Employees hired after July 6, 1980, but on or before July 12, 1997 become members under Plan 2. Employees hired after July 12, 1997 become members of Plan 4.

Final Average Salary (FAS):

Final average salary (FAS) is defined as the highest 12 consecutive months of compensation earnable for Safety Plan 1 and 2 members. FAS of Safety Plan 4 members is based on the highest three years average monthly salary. The individual years need not be consecutive.

Service Retirement

Eligibility:

Members with 10 years of service who have attained the age of 50 are eligible to retire. Members with 20 years of service, regardless of age, are eligible to retire.

Benefit:

The benefit is a percentage of monthly FAS per year of service, depending on age at retirement and is illustrated below for typical ages under both the current and new formulas.

Age	Percentage of Final Average Salary (rounded) – New Formula	
	Safety Section 31664.2	Safety Section 31664.1
	Current	January 2005
50	2.29%	3.00%
55	3.00%	3.00%
60	3.00%	3.00%
62	3.00%	3.00%
65	3.00%	3.00%
and over		

Maximum Benefit: The maximum basic benefit payable to a member or beneficiary is 100% of FAS.

Normal Form of Benefit: Life annuity; 60% of the member's allowance is continued to the eligible spouse for life.

Non-service Connected Disability

Eligibility: 5 years of service regardless of age.

Disabled Definition: Unable to perform their own job.

Benefit: The benefit is 1.8% of FAS for each year of service. If this benefit does not equal 1/3 of FAS, the benefit is increased by the above percentage of FAS for the years of which would have been credited to age 55. The total benefit in this case cannot exceed one-third of FAS.

Normal Form of Benefit: Life annuity; 60% continuance to eligible spouse after death of member. If there is no eligible surviving spouse, the benefit is paid to eligible children.

Service Connected Disability

Eligibility: First day of work

Disabled Definition: Disability is substantially caused by employment and unable to perform his or her own job.

Benefit: The member may retire regardless of length of service, with a benefit of 50% of FAS.

Normal Form of Benefit: Life annuity; 60% continuance to eligible spouse after death of member. If there is no eligible surviving spouse, the benefit is paid to eligible children.

Non-service Connected Death

Before eligible for Non-service Connected Disability or Service Retirement:

Refund of employee contributions with interest, plus a lump sum death benefit equal to 1 month's salary for each full year of service (maximum 6 months' salary).

After eligible for Non-service Connected Disability or Service Retirement:

The Regulations of the Board of Retirement provide an eligible spouse with a monthly allowance equal to the Option 2 100 % survivor continuance allowance that the member would have been eligible to receive for retirement on the day of his or her death. We have taken the value of the Option 2 benefit election in our valuation.

Deferred Service Retirement

Eligibility:

5 years of service (including service with reciprocal systems).

Additional requirement:

Must leave contributions on deposit.

Benefit:

Same as service retirement benefit after 10 years of membership, including 5 years of service.

FAS:

If reciprocity provisions apply, includes compensation earned at reciprocal agency.

Normal Form of Benefit:

Same as service retirement benefit.

Withdrawal

Eligibility:

First day of work.

Other Requirement:

Forfeits right to receive other benefit from retirement system.

Benefit:

Accumulated contributions with interest.

Form of Benefit:

Lump sum.

Cost of Living Benefits

Timing:	Annually, effective April 1 for all those who retired on or before April 1. Based on the annual average change in the Consumer Price Index (CPI) for the San Francisco-Oakland-San Jose area for the preceding calendar year.
Maximum:	The maximum increase in retirement allowance for Safety Plan 1 is 5% per year; for Plan 2 is 3% per year, and for Plan 4 it is 2% per year. Plan 1 has a COLA bank.

Member Contributions

Basic:	Member basic rates are based on a formula reflecting the age at entry in to the Association. The rates under the current formula provide a benefit at age 50 of 1/100 of final average salary for Safety members.
COLA:	Members do not contribute towards the cost of living benefit.
Cost Sharing:	<p>Safety members, with the exception of Deputy Sheriffs, will share in 2%, 3%, and 5% of the employer's contributions, effective July 1, 2003, January 1, 2004, and January 1, 2005, respectively. Our employer contribution rates take this cost sharing into account. The member contribution rates in the following section do not take the cost sharing into account.</p> <p>Deputy Sheriff's share in the contribution in accordance with the following schedule:</p> <p>Effective July 6, 2003:</p> <ul style="list-style-type: none"> • Employees with more than 15 years of County service or who are age 45

or older will contribute 2%

- Employees with 5 to 15 years of County service will contribute 1.5%
- Employees with 0 to 5 years of County service will contribute 1%

Effective January 4, 2004:

- Employees with more than 15 years of County service or who are age 45 or older will contribute an additional 1% for a total of 3%
- Employees with 5 to 15 years of County service will contribute an additional 1% for a total of 2.5%
- Employees with 0 to 5 years of County service will contribute and additional 1% for a total of 2%

Effective January 2, 2005:

- Employees with more than 15 years of County service or who are age 45 or older will contribute an additional 1.5% for a total of 4.5%
- Employees with 5 to 15 years of County service will contribute an additional 1% for a total of 3.5%
- Employees with 0 to 5 years of County service will contribute and additional 1% for a total of 3%

Employer Pick-Up:

The county provides a variety of refundable service-based employer pick-up of member contributions programs for members in several of its unions. The County also pays 100% of management employees' and Sheriff's Sergeants' contributions and 50% of confidential employees' contributions on a refundable basis.

Employer rates have not been adjusted to reflect the payment of the refundable employer pick-up of member contributions programs because the County payroll system captures these costs on a pay-as-you-go basis while processing each individual's biweekly pay.

Other Provisions:

Rates based on age at entry into the Association.

I. Member Contribution Rates

- Safety Members

Member contribution rates are calculated as a percentage of the member's pay, on the basis of the member's age at entry into System, the classification of the member, the Plan's economic assumptions and the member's life expectancy at the retirement age specified for this purpose in the County Employees Retirement Law of 1937 (1937 Act). The rates shown in this report do not take into account the cost sharing arrangements described in the prior section.

Entry Age	Plan 1 & 2	Plan 4
20	8.36%	7.97%
21	8.35%	7.97%
22	8.36%	7.97%
23	8.37%	7.98%
24	8.38%	7.99%
25	8.40%	8.01%
26	8.43%	8.03%
27	8.46%	8.06%
28	8.49%	8.10%
29	8.54%	8.14%
30	8.59%	8.19%
31	8.64%	8.24%
32	8.70%	8.30%
33	8.77%	8.36%
34	8.85%	8.43%
35	8.93%	8.51%
36	9.02%	8.60%
37	9.11%	8.69%
38	9.21%	8.78%
39	9.32%	8.88%
40	9.43%	8.99%
41	9.54%	9.10%
42	9.67%	9.22%
43	9.79%	9.34%
44	9.92%	9.46%
45	10.06%	9.59%
46	10.20%	9.73%
47	10.35%	9.86%
48	10.50%	10.25%
49 and up	10.65%	10.65%

J. Summary of Major Plan Provisions – Probation Members

Membership:

Employees hired after July 6, 1980, but on or before July 12, 1997 become members under Plan 2. Employees hired after July 12, 1997 become members of Plan 4. Probation officers in 1990 were given the choice of remaining in the General Plan or electing Safety status for future service under a new Probation Plan. Such Probation Officers may purchase an upgrade of their General Plan Service.

Final Average Salary (FAS):

Final average salary (FAS) is defined as the highest 12 consecutive months of compensation earnable for Probation Plan 1 and 2 members. FAS of Plan 4 members are based on the highest three years average monthly salary. The individual years need not be consecutive.

Service Retirement

Eligibility:

Members with 10 years of service who have attained the age of 50 are eligible to retire. Members with 20 years of service regardless of age, are eligible to retire.

Benefit:

The benefit is a percentage of monthly FAS per year of service, depending on age at retirement and is illustrated below for typical ages under both the current and new formulas.

Age	Percentage of Final Average Salary (rounded) – New Formula	
	Probation Section 31664.2 Current	Probation Section 31664.1 January 2005
50	2.29%	3.00%
55	3.00%	3.00%
60	3.00%	3.00%
62	3.00%	3.00%
65 and over	3.00%	3.00%

Maximum Benefit:

The maximum basic benefit payable to a member or beneficiary is 100 % of FAS.

Normal Form of Benefit:

Life annuity; 60% of the member's allowance is continued to the eligible spouse for life.

Non-service Connected Disability

Eligibility:

5 years of service regardless of age.

Disabled Definition:

Unable to perform their own job.

Benefit:

The benefit is 1.8% of FAS for each year of service. If this benefit does not equal 1/3 of FAS, the benefit is increased by the above percentage of FAS for the years of which would have been credited to age 55. The total benefit in this case cannot exceed one-third of FAS.

Normal Form of Benefit:

Life annuity; 60% continuance to eligible spouse after death of member. If there is no eligible surviving spouse, the benefit is paid to eligible children.

Service Connected Disability

Eligibility:	First day of work
Disabled Definition:	Disability is substantially caused by employment and unable to perform his or her own job.
Benefit:	The member may retire regardless of length of service, with a benefit of 50% of FAS.
Normal Form of Benefit:	Life annuity; 60% continuance to eligible spouse after death of member. If there is no eligible surviving spouse, the benefit is paid to eligible children.

Non-service Connected Death

Before eligible for Non-service Connected Disability or Service Retirement:	Refund of employee contributions with interest, plus a lump sum death benefit equal to 1 month's salary for each full year of service (maximum 6 months' salary).
After eligible for Non-service Connected Disability or Service Retirement:	The Regulations of the Board of Retirement provide an eligible spouse with a monthly allowance equal to the Option 2 100 % survivor continuance allowance that the member would have been eligible to receive for retirement on the day of his or her death. We have taken the value of the Option 2 benefit election in our valuation.

Deferred Service Retirement

Eligibility:	5 years of service (including service with reciprocal systems).
Additional requirement:	Must leave contributions on deposit.
Benefit:	Same as service retirement benefit after 10 years of membership, including 5 years of service.

FAS: If reciprocity provisions apply, includes compensation earned at reciprocal agency.

Normal Form of Benefit: Same as service retirement benefit.

Withdrawal

Eligibility: First day of work.

Other Requirement: Forfeits right to receive other benefit from retirement system.

Benefit: Accumulated contributions with interest.

Form of Benefit: Lump sum.

Cost of Living Benefits

Timing: Annually, effective April 1 for all those who retired on or before April 1. Based on the annual average change in the Consumer Price Index (CPI) for the San Francisco-Oakland-San Jose area for the preceding calendar year.

Maximum: The maximum increase in retirement allowance for Plan 1 is 5% per year, for Plan 2 is 3 % per year and for Plan 4 it is 2% per year. Plan 1 has a COLA bank.

Member Contributions

- Basic:** Member basic rates are based on a formula reflecting the age at entry in to the Association. The rates under the current formula are such to provide an average annuity at age 50 of 1/100 of final average salary for Probation Officer members.
- COLA:** Members do not contribute towards the cost of living benefit.
- Cost Sharing:** Probation members will share in 1.5%, 2.5%, and 3.5% of the employers' contributions, effective October 12, 2003, January 1, 2004 and January 1, 2005, respectively. Our employer contributions rates take into account this cost sharing. The member contribution rates shown in the next section do not include this cost sharing.
- Employer Pick-Up:** The County pays 100% of management employees' contributions and 50% of confidential employees' contributions on a refundable basis. For Probation members, the employer rates have been adjusted to reflect the 15% non-refundable County pick-up effective October 12, 2003.
- Other Provisions:** Rates based on age at entry into the Association.

K. Member Contribution Rates – Probation Members

Member contribution rates are calculated as a percentage of the member's pay, on the basis of the member's age at entry into System, the classification of the member, the Plan's economic assumptions and the member's life expectancy at the retirement age specified for this purpose in the County Employees Retirement Law of 1937 (1937 Act). The rates shown in this report do not take into account the cost sharing arrangements described in the prior section.

Entry Age	Plan 1 & 2	Plan 4
20	7.10%	6.77%
21	7.10%	6.77%
22	7.10%	6.77%
23	7.11%	6.78%
24	7.12%	6.79%
25	7.14%	6.81%
26	7.16%	6.83%
27	7.19%	6.85%
28	7.22%	6.88%
29	7.26%	6.92%
30	7.30%	6.96%
31	7.34%	7.00%
32	7.40%	7.05%
33	7.45%	7.11%
34	7.52%	7.17%
35	7.59%	7.23%
36	7.66%	7.31%
37	7.74%	7.38%
38	7.83%	7.46%
39	7.92%	7.55%
40	8.01%	7.64%
41	8.11%	7.74%
42	8.22%	7.83%
43	8.32%	7.94%
44	8.44%	8.04%
45	8.55%	8.15%
46	8.67%	8.27%
47	8.79%	8.38%
48	8.92%	8.71%
49 and up	9.05%	9.05%

L. Summary of Actuarial Assumptions and Funding Methods

This actuarial valuation report has been prepared in accordance with generally accepted actuarial principles and practices. The major assumptions and methods used in this valuation are as follows:

Economic Assumptions

Interest:	8.00% per year (7.85% compounded semi-annually).
Salary Increase – Total Payroll:	4.0 % per year. This is a change from 4.25% in the previous valuation.
Salary Increase – Individual:	Rates varying by service, for General, Safety and Probation members, as shown in Schedule 17. This is a change from the previous valuation, in which rates were assumed to be 0.25% greater each year.
Inflation:	4.00% per year. This is a change from 3.00% in the previous valuation.
Employee Contribution Interest Crediting Rate:	8.00% per year.

Demographic Assumptions

Post-retirement mortality:

- **Service Retirement:**

- **General Males**

1994 Group Annuity Mortality Table set back 1 year (Male).

- **General Females**

1994 Group Annuity Mortality Table set back 2 years (Female).

- **Safety and Probation**

1994 Group Annuity Mortality Table set forward 1 year (Male).

Life Expectancies are shown in Schedule 1.

- **Disability Retirement:**

General

1981 General Disability Mortality Table set back 4 years.

Safety

1981 Safety Disability Mortality Table set back 2 years.

Life Expectancies are shown in Schedule 2.

- **Beneficiaries:**

General Males

1994 Group Annuity Mortality Table set back 1 year (Male).

General Females

1994 Group Annuity Mortality Table set back 1 year (Female).

Safety and Probation

1994 Group Annuity Mortality Table set back 1 year (Female).

- **For Employee Contributions Rate Purposes:**

General

1994 Group Annuity Mortality Table no set back (Female).

Safety

1994 Group Annuity Mortality Table set forward 1 year (Male).

Withdrawal (termination with refund of member contributions):

Rates varying by age and service, as shown in Schedule 3, 7 and 11 (for General males), 5, 9 and 13 (for General females) and 15 (for Safety and Probation).

Vested Termination (termination with retirement pension deferred to age 60 for General and age 50 for Safety members):

Rates varying by age, as shown in Schedule 3, 7 and 11 (for General males), 5, 9 and 13 (for General females) and 15 (for Safety and Probation). Half of all members are assumed to join a reciprocal agency immediately after termination.

Service Disability:	Rates varying by age, as shown in Schedule 4, 8 and 12 (for General males), 6, 10 and 14 (for General females) and 16 (for Safety and Probation).
Ordinary Disability:	Rates varying by age, as shown in Schedule 4, 8 and 12 (for General males), 6, 10 and 14 (for General females) and 16 (for Safety and Probation).
Service Retirement:	Rates varying by age, as shown in Schedule 4, 8 and 12 (for General males), 6, 10 and 14 (for General females) and 16 (for Safety and Probation).
Form of Payment:	Life annuity for single members. 60% contingent annuity for married members (100% contingent annuity if receiving service-related disability).
Percentage Married at Retirement:	85% for General male, Safety and Probation members. 55% for General female members.
Benefit Eligibility:	For decrement purposes, active members are considered potentially eligible for a benefit after meeting the age and service requirements. Prior to meeting those requirements, the demographic decrements are not applied.
Spouse Ages	For active members reaching retirement, wives are assumed to be three years younger than husbands. Where spousal information was included for retirees, that information was used. If no beneficiary information was present, it was assumed that there was no eligible beneficiary.

Actuarial Methods

<i>Funding Method:</i>	Entry Age Funding Method.
<i>Amortization Period:</i>	The amortization period for the Unfunded Actuarial Accrued Liability (UAAL) is 18 years as of June 30, 2004. The UAAL is amortized as a level percentage of payroll.
<i>Actuarial Value of Assets:</i>	The market value of assets is adjusted to recognize, over a five-year period, investment earnings greater than (or less than) the assumed investment return. Actuarial value of assets must fall within a 20% corridor around the market value of assets.
<i>Allocation of Liability:</i>	<p>For active members currently classified as General or Safety, we have allocated the liability for past service credit to the plan and classification in which it was earned.</p> <p>For active members currently classified as Probation, we have allocated the liability for past service credit to the plan and classification in which the member is currently earning service credit.</p>
<i>Allocation of Assets:</i>	<p>Valuation Assets are allocated between plans using a three-step process.</p> <ol style="list-style-type: none">1. Project expected UAAL by plan based on previous year's allocation of UAAL, payment toward UAAL from prior valuation, and prior valuation interest rate.2. Allocate UAAL for current valuation based on prior assumptions proportionally to projected UAAL from step 1 above.3. Subtract UAAL from AAL by plan to get valuation assets.

Data Sources

Asset Data:

The asset information is taken directly from statements furnished by the Association's staff and used without audit.

Member Data:

The member data was supplied by the Retirement Office. It is reviewed for reasonableness and consistency, but no audit was performed. Public Pension Professionals is not aware of any errors or omissions in the data that would have a significant effect on the results of our calculations.

**Schedule 1
 Life Expectancies
 Healthy Members after Service Retirement**

Age	General			Safety and Probation			
	Male	Female	Male/Female	Age	Male	Female	Male/Female
50	31.12	36.30	29.27	81	7.87	10.43	6.94
51	30.19	35.34	28.35	82	7.39	9.81	6.50
52	29.27	34.39	27.45	83	6.94	9.21	6.09
53	28.35	33.44	26.54	84	6.50	8.64	5.69
54	27.45	32.49	25.65	85	6.09	8.08	5.30
55	26.54	31.55	24.76	86	5.69	7.55	4.93
56	25.65	30.61	23.89	87	5.30	7.04	4.57
57	24.76	29.67	23.02	88	4.93	6.56	4.23
58	23.89	28.74	22.17	89	4.57	6.09	3.92
59	23.02	27.81	21.33	90	4.23	5.65	3.63
60	22.17	26.89	20.50	91	3.92	5.23	3.36
61	21.33	25.99	19.68	92	3.63	4.84	3.11
62	20.50	25.09	18.89	93	3.36	4.48	2.87
63	19.68	24.20	18.10	94	3.11	4.14	2.66
64	18.89	23.32	17.34	95	2.87	3.83	2.48
65	18.10	22.46	16.60	96	2.66	3.54	2.31
66	17.34	21.61	15.87	97	2.48	3.26	2.16
67	16.60	20.78	15.16	98	2.31	3.01	2.02
68	15.87	19.96	14.47	99	2.16	2.78	1.89
69	15.16	19.15	13.79	100	2.02	2.56	1.76
70	14.47	18.36	13.13	101	1.89	2.35	1.65
71	13.79	17.58	12.48	102	1.76	2.17	1.53
72	13.13	16.80	11.84	103	1.65	2.00	1.43
73	12.48	16.04	11.22	104	1.53	1.84	1.34
74	11.84	15.28	10.62	105	1.43	1.69	1.25
75	11.22	14.54	10.03	106	1.34	1.56	1.18
76	10.62	13.81	9.46	107	1.25	1.44	1.12
77	10.03	13.10	8.90	108	1.18	1.33	1.07
78	9.46	12.40	8.37	109	1.12	1.24	1.03
79	8.90	11.72	7.87	110	1.07	1.16	1.01
80	8.37	11.07	7.39				

General Male Members – 1994 GAM Male Set Back 1 Year
 Female Members – 1994 GAM Female Set Back 2 years

Safety All Members – 1994 GAM Male Set Forward 1 year

**Schedule 2
Life Expectancies
Disabled Members**

Age	General Members	Safety Members	Age	General Members	Safety Members
20	41.16	50.60	66	14.95	14.08
21	40.44	49.70	67	14.49	13.59
22	39.71	48.79	68	14.03	13.11
23	38.97	47.89	69	13.57	12.63
24	38.23	46.98	70	13.10	12.16
25	37.48	46.08	71	12.63	11.68
26	36.76	45.18	72	12.16	11.20
27	36.06	44.29	73	11.68	10.71
28	35.37	43.39	74	11.20	10.22
29	34.69	42.51	75	10.71	9.72
30	34.03	41.62	76	10.22	9.23
31	33.37	40.74	77	9.72	8.74
32	32.73	39.86	78	9.23	8.25
33	32.10	38.98	79	8.74	7.78
34	31.48	38.11	80	8.25	7.33
35	30.87	37.24	81	7.78	6.91
36	30.26	36.38	82	7.33	6.50
37	29.67	35.52	83	6.91	6.13
38	29.08	34.66	84	6.50	5.77
39	28.50	33.81	85	6.13	5.44
40	27.93	32.95	86	5.77	5.13
41	27.37	32.11	87	5.44	4.84
42	26.81	31.27	88	5.13	4.56
43	26.26	30.43	89	4.84	4.30
44	25.71	29.59	90	4.56	4.05
45	25.17	28.76	91	4.30	3.81
46	24.64	27.93	92	4.05	3.59
47	24.11	27.11	93	3.81	3.37
48	23.59	26.30	94	3.58	3.16
49	23.07	25.48	95	3.37	2.96
50	22.56	24.68	96	3.16	2.76
51	22.06	23.88	97	2.96	2.57
52	21.56	23.09	98	2.76	2.39
53	21.07	22.30	99	2.56	2.21
54	20.58	21.53	100	2.38	2.03
55	20.09	20.76	101	2.20	1.87
56	19.61	20.00	102	2.02	1.70
57	19.13	19.27	103	1.85	1.54
58	18.66	18.56	104	1.67	1.37
59	18.18	17.90	105	1.49	1.21
60	17.71	17.28	106	1.31	1.03
61	17.25	16.70	107	1.10	0.85
62	16.79	16.14	108	0.85	0.64
63	16.33	15.61	109	0.51	0.39
64	15.87	15.09	110	0.00	0.00
65	15.41	14.58			

General Members – 1981 General Disability Mortality Set Back 4 Years

Safety Members – 1981 Safety Disability Mortality Set Back 2 years



Actuaries you can understand

Schedule 3
Probability of Separation from Active Service
 (Number separating at each age per 10,000 working at that age)

General Male Members – Plan 1

Age	With (svc<1)	With (1<svc<2)	With (2<svc<3)	With (3<svc<4)	With (4<svc<5)	With (svc>5)	Vested Term
20	1,460	1,460	1,460	1,460	1,460	1,460	0
21	1,440	1,440	1,440	1,440	1,440	1,440	0
22	1,420	1,420	1,420	1,420	1,420	1,420	0
23	1,400	1,400	1,400	1,400	1,400	1,400	0
24	1,370	1,370	1,370	1,370	1,370	1,370	0
25	1,340	1,340	1,340	1,340	1,340	1,340	85
26	1,310	1,310	1,310	1,310	1,310	1,310	85
27	1,280	1,280	1,280	1,280	1,280	1,280	90
28	1,250	1,250	1,250	1,250	1,250	1,250	90
29	1,210	1,210	1,210	1,210	1,210	1,210	95
30	1,170	1,170	1,170	1,170	1,170	1,170	98
31	1,120	1,120	1,120	1,120	1,120	1,120	103
32	1,050	1,050	1,050	1,050	1,050	1,050	108
33	960	960	960	960	960	927	113
34	860	860	860	860	860	800	123
35	760	760	760	760	760	727	130
36	650	650	650	650	650	597	137
37	550	550	550	550	550	485	144
38	460	460	460	460	460	386	152
39	380	380	380	380	380	301	159
40	300	300	300	300	300	176	166
41	240	240	240	240	240	133	170
42	200	200	200	200	200	103	170
43	180	180	180	180	180	88	168
44	160	160	160	160	160	74	165
45	140	140	140	140	140	50	157
46	120	120	120	120	120	40	150
47	100	100	100	100	100	31	142
48	90	90	90	90	90	27	134
49	80	80	80	80	80	23	126
50	70	70	70	70	70	26	0
51	60	60	60	60	60	21	0
52	50	50	50	50	50	17	0
53	40	40	40	40	40	13	0
54	40	40	40	40	40	12	0
55	30	30	30	30	30	29	0
56	20	20	20	20	20	19	0
57	20	20	20	20	20	18	0
58	10	10	10	10	10	13	0
59	10	10	10	10	10	17	0
60	0	0	0	0	0	0	0
61	0	0	0	0	0	0	0
62	0	0	0	0	0	0	0
63	0	0	0	0	0	0	0
64	0	0	0	0	0	0	0
65	0	0	0	0	0	0	0
66	0	0	0	0	0	0	0
67	0	0	0	0	0	0	0
68	0	0	0	0	0	0	0
69	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0

Schedule 4
Probability of Separation from Active Service - continued
(Number separating at each age per 10,000 working at that age)

General Male Members – Plan 1

Age	Ordinary Disability	Duty Disability	Ordinary Death	Duty Death	Service Retirement
20	0	0	2	1	0
21	0	0	2	1	0
22	0	0	2	1	0
23	0	0	2	1	0
24	0	0	2	1	0
25	3	0	3	1	0
26	3	0	3	1	0
27	3	1	3	1	0
28	3	1	3	1	0
29	3	1	3	1	0
30	3	2	3	1	0
31	3	2	4	1	0
32	4	2	4	1	0
33	4	3	5	1	0
34	5	3	5	1	0
35	6	3	5	1	0
36	7	4	6	1	0
37	8	5	6	1	0
38	9	6	6	1	0
39	10	7	6	1	0
40	10	8	6	1	0
41	11	9	7	1	0
42	13	10	8	1	0
43	14	10	9	1	0
44	16	11	10	2	0
45	18	12	12	2	0
46	20	12	14	2	0
47	21	13	16	2	0
48	23	13	18	2	0
49	25	13	20	2	0
50	56	13	22	2	362
51	28	13	24	2	300
52	30	13	26	3	300
53	31	13	28	3	300
54	33	13	30	3	300
55	35	14	32	3	340
56	36	12	34	3	490
57	38	16	36	4	865
58	40	19	38	4	1,121
59	42	22	40	4	1,650
60	43	25	42	4	1,570
61	45	28	44	4	1,489
62	47	32	46	5	3,000
63	48	38	48	5	2,121
64	50	44	50	5	2,656
65	0	0	52	5	5,000
66	0	0	56	5	5,000
67	0	0	60	6	7,500
68	0	0	65	6	8,500
69	0	0	70	6	9,500
70	0	0	0	0	10,000

Schedule 5
Probability of Separation from Active Service
 (Number separating at each age per 10,000 working at that age)

General Female Members – Plan 1

	With (0<svc<1)	With (1<svc<2)	With (2<svc<3)	With (3<svc<4)	With (4<svc<5)	With (svc>5)	Vested Term
20	1,540	1,540	1,540	1,540	1,540	1,540	0
21	1,471	1,471	1,471	1,471	1,471	1,471	0
22	1,410	1,410	1,410	1,410	1,410	1,410	0
23	1,332	1,332	1,332	1,332	1,332	1,332	0
24	1,263	1,263	1,263	1,263	1,263	1,263	0
25	1,194	1,194	1,194	1,194	1,194	1,194	35
26	1,124	1,124	1,124	1,124	1,124	1,124	40
27	1,055	1,055	1,055	1,055	1,055	1,055	45
28	986	986	986	986	986	986	55
29	916	916	916	916	916	916	70
30	847	847	847	847	847	847	80
31	762	762	762	762	762	762	94
32	676	676	676	676	676	676	113
33	591	591	591	591	591	565	132
34	520	520	520	520	520	474	151
35	431	431	431	431	431	400	180
36	402	402	402	402	402	331	190
37	344	344	344	344	344	268	200
38	285	285	285	285	285	202	200
39	227	227	227	227	227	145	190
40	168	168	168	168	168	96	188
41	157	157	157	157	157	79	172
42	145	145	145	145	145	63	156
43	138	138	138	138	138	67	144
44	134	134	134	134	134	71	132
45	126	126	126	126	126	73	119
46	118	118	118	118	118	75	107
47	107	107	107	107	107	73	94
48	99	99	99	99	99	75	89
49	92	92	92	92	92	76	80
50	84	84	84	84	84	0	79
51	76	76	76	76	76	0	76
52	69	69	69	69	69	0	75
53	61	61	61	61	61	0	74
54	54	54	54	54	54	0	72
55	46	46	46	46	46	0	71
56	38	38	38	38	38	0	68
57	31	31	31	31	31	0	61
58	23	23	23	23	23	0	54
59	19	19	19	19	19	0	47
60	0	0	0	0	0	0	32
61	0	0	0	0	0	0	26
62	0	0	0	0	0	0	21
63	0	0	0	0	0	0	16
64	0	0	0	0	0	0	11
65	0	0	0	0	0	0	0
66	0	0	0	0	0	0	0
67	0	0	0	0	0	0	0
68	0	0	0	0	0	0	0
69	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0

Schedule 6
Probability of Separation from Active Service - continued
(Number separating at each age per 10,000 working at that age)

General Female Members – Plan 1

Age	Ordinary Disability	Duty Disability	Ordinary Death	Duty Death	Service Retirement
20	0	0	3	0	0
21	0	0	3	0	0
22	0	0	3	0	0
23	0	0	3	0	0
24	0	0	3	0	0
25	1	0	3	0	0
26	1	0	3	0	0
27	2	1	3	0	0
28	2	1	3	0	0
29	2	1	3	0	0
30	2	2	3	0	0
31	2	2	4	0	0
32	2	2	4	0	0
33	3	3	4	0	0
34	3	3	4	0	0
35	4	4	5	0	0
36	4	5	5	0	0
37	5	6	5	0	0
38	6	7	6	0	0
39	6	8	6	0	0
40	6	9	6	0	0
41	6	10	7	0	0
42	7	10	8	0	0
43	10	11	8	0	0
44	14	12	9	0	0
45	22	12	9	0	0
46	30	13	10	0	0
47	39	13	10	0	0
48	37	13	11	0	0
49	34	20	12	0	0
50	30	20	13	0	400
51	30	20	14	0	400
52	30	20	15	0	400
53	30	20	17	0	400
54	30	20	19	0	400
55	20	42	21	0	450
56	25	45	22	0	694
57	20	48	25	0	750
58	20	56	28	0	800
59	18	65	31	0	850
60	19	65	36	0	1,219
61	20	65	42	0	1,655
62	21	65	48	0	2,000
63	25	65	55	0	2,000
64	29	65	63	0	2,000
65	0	0	72	0	4,000
66	0	0	82	0	2,641
67	0	0	93	0	2,832
68	0	0	104	0	4,484
69	0	0	116	0	5,765
70	0	0	0	0	10,000

Schedule 7
Probability of Separation from Active Service
 (Number separating at each age per 10,000 working at that age)

General Male Members – Plan 2 and Plan 4

Age	With (svc<1)	With (1<svc<2)	With (2<svc<3)	With (3<svc<4)	With (4<svc<5)	With (svc>5)	Vested Term
20	1,360	1,100	1,000	700	400	400	0
21	1,360	1,100	1,000	700	400	400	0
22	1,360	1,100	1,000	700	400	400	0
23	1,360	1,100	1,000	700	400	400	0
24	1,360	1,100	1,000	700	400	400	0
25	1,360	1,100	1,000	700	400	400	90
26	1,360	1,100	1,000	700	400	400	100
27	1,360	1,100	1,000	700	400	400	110
28	1,360	1,100	1,000	700	400	400	120
29	1,360	1,100	1,000	700	400	400	130
30	1,360	1,100	1,000	700	400	400	160
31	1,360	1,100	1,000	700	400	400	144
32	1,360	1,100	1,000	700	400	400	190
33	1,360	1,100	1,000	700	400	400	174
34	1,360	1,100	1,000	700	400	400	220
35	1,360	1,100	1,000	700	400	400	260
36	1,360	1,100	1,000	700	400	400	222
37	1,360	1,100	1,000	700	400	350	300
38	1,360	1,100	1,000	700	400	300	260
39	1,360	1,100	1,000	700	400	250	340
40	1,360	1,100	1,000	700	400	200	380
41	1,360	1,100	1,000	700	400	175	380
42	1,360	1,100	1,000	700	400	150	380
43	1,360	1,100	1,000	700	400	150	300
44	1,360	1,100	1,000	700	400	150	280
45	1,360	1,100	1,000	700	400	150	260
46	1,360	1,100	1,000	700	400	150	260
47	1,360	1,100	1,000	700	400	150	240
48	1,360	1,100	1,000	700	400	150	240
49	1,360	1,100	1,000	700	400	150	240
50	1,360	1,100	1,000	700	400	0	220
51	1,360	1,100	1,000	700	400	0	220
52	1,360	1,100	1,000	700	400	0	220
53	1,360	1,100	1,000	700	400	0	200
54	1,360	1,100	1,000	700	400	0	180
55	1,360	1,100	1,000	700	400	0	120
56	1,360	1,100	1,000	700	400	0	110
57	1,360	1,100	1,000	700	400	0	100
58	1,360	1,100	1,000	700	400	0	90
59	1,360	1,100	1,000	700	400	0	80
60	1,360	1,100	1,000	700	400	0	70
61	1,360	1,100	1,000	700	400	0	60
62	1,360	1,100	1,000	700	400	0	50
63	1,360	1,100	1,000	700	400	0	40
64	1,360	1,100	1,000	700	400	0	30
65	1,360	1,100	1,000	700	400	0	0
66	1,360	1,100	1,000	700	400	0	0
67	1,360	1,100	1,000	700	400	0	0
68	1,360	1,100	1,000	700	400	0	0
69	1,360	1,100	1,000	700	400	0	0
70	0	0	0	0	0	0	0

Schedule 8
Probability of Separation from Active Service - continued
(Number separating at each age per 10,000 working at that age)

General Male Members – Plan 2 and Plan 4

Age	Ordinary Disability	Duty Disability	Ordinary Death	Duty Death	Service Retirement
20	0	0	2	1	0
21	0	0	2	1	0
22	0	0	2	1	0
23	0	0	2	1	0
24	0	0	2	1	0
25	3	0	3	1	0
26	3	0	3	1	0
27	3	2	3	1	0
28	3	2	3	1	0
29	3	2	3	1	0
30	3	4	3	1	0
31	3	4	4	1	0
32	4	4	4	1	0
33	4	6	5	1	0
34	5	6	5	1	0
35	5	6	5	1	0
36	6	8	6	1	0
37	6	10	6	1	0
38	7	12	6	1	0
39	9	14	6	1	0
40	12	16	6	1	0
41	15	18	7	1	0
42	18	20	8	1	0
43	21	22	9	1	0
44	24	24	10	2	0
45	27	26	12	2	0
46	30	28	14	2	0
47	32	30	16	2	0
48	34	32	18	2	0
49	36	34	20	2	0
50	38	36	22	2	362
51	40	38	24	2	300
52	42	40	26	3	300
53	44	42	28	3	300
54	46	44	30	3	300
55	48	48	32	3	340
56	50	54	34	3	490
57	52	60	36	4	865
58	54	66	38	4	1,121
59	56	72	40	4	1,650
60	58	78	42	4	1,570
61	60	84	44	4	1,489
62	62	92	46	5	2,833
63	64	100	48	5	2,121
64	66	108	50	5	2,656
65	0	0	52	5	3,000
66	0	0	56	5	1,000
67	0	0	60	6	1,500
68	0	0	65	6	2,000
69	0	0	70	6	2,500
70	0	0	0	0	10,000

Schedule 9
Probability of Separation from Active Service
 (Number separating at each age per 10,000 working at that age)

General Female Members – Plan 2 and Plan 4

Age	With (svc<1)	With (1<svc<2)	With (2<svc<3)	With (3<svc<4)	With (4<svc<5)	With (svc>5)	Vested Term
20	1,300	1,097	882	700	400	400	0
21	1,300	1,097	882	700	400	400	0
22	1,300	1,097	882	700	400	400	0
23	1,300	1,097	882	700	400	400	0
24	1,300	1,097	882	700	400	400	0
25	1,300	1,097	882	700	400	400	128
26	1,300	1,097	882	700	400	400	128
27	1,300	1,097	882	700	400	400	135
28	1,300	1,097	882	700	400	400	135
29	1,300	1,097	882	700	400	400	143
30	1,300	1,097	882	700	400	349	188
31	1,300	1,097	882	700	400	349	225
32	1,300	1,097	882	700	400	349	240
33	1,300	1,097	882	700	400	349	255
34	1,300	1,097	882	700	400	349	263
35	1,300	1,097	882	700	400	240	300
36	1,300	1,097	882	700	400	240	300
37	1,300	1,097	882	700	400	240	300
38	1,300	1,097	882	700	400	240	263
39	1,300	1,097	882	700	400	240	225
40	1,300	1,097	882	700	400	240	225
41	1,300	1,097	882	700	400	240	225
42	1,300	1,097	882	700	400	240	225
43	1,300	1,097	882	700	400	240	225
44	1,300	1,097	882	700	400	240	225
45	1,300	1,097	882	700	400	227	210
46	1,300	1,097	882	700	400	211	200
47	1,300	1,097	882	700	400	195	190
48	1,300	1,097	882	700	400	180	180
49	1,300	1,097	882	700	400	166	170
50	1,300	1,097	882	700	400	0	160
51	1,300	1,097	882	700	400	0	150
52	1,300	1,097	882	700	400	0	140
53	1,300	1,097	882	700	400	0	130
54	1,300	1,097	882	700	400	0	125
55	1,300	1,097	882	700	400	0	120
56	1,300	1,097	882	700	400	0	110
57	1,300	1,097	882	700	400	0	100
58	1,300	1,097	882	700	400	0	50
59	1,300	1,097	882	700	400	0	25
60	1,300	1,097	882	700	400	0	0
61	1,300	1,097	882	700	400	0	0
62	1,300	1,097	882	700	400	0	0
63	1,300	1,097	882	700	400	0	0
64	1,300	1,097	882	700	400	0	0
65	1,300	1,097	882	700	400	0	0
66	1,300	1,097	882	700	400	0	0
67	1,300	1,097	882	700	400	0	0
68	1,300	1,097	882	700	400	0	0
69	1,300	1,097	882	700	400	0	0
70	0	0	0	0	0	0	0

Schedule 10
Probability of Separation from Active Service - continued
(Number separating at each age per 10,000 working at that age)

General Female Members – Plan 2 and Plan 4

Age	Ordinary Disability	Duty Disability	Ordinary Death	Duty Death	Service Retirement
20	0	0	3	0	0
21	0	0	3	0	0
22	0	0	3	0	0
23	0	0	3	0	0
24	0	0	3	0	0
25	1	0	3	0	0
26	1	0	3	0	0
27	2	1	3	0	0
28	2	1	3	0	0
29	2	1	3	0	0
30	3	1	3	0	0
31	3	1	4	0	0
32	3	1	4	0	0
33	7	3	4	0	0
34	10	6	4	0	0
35	16	10	5	0	0
36	20	12	5	0	0
37	28	15	5	0	0
38	29	18	6	0	0
39	30	20	6	0	0
40	30	20	6	0	0
41	30	20	7	0	0
42	30	20	8	0	0
43	30	20	8	0	0
44	30	20	9	0	0
45	30	22	9	0	0
46	36	24	10	0	0
47	36	26	10	0	0
48	36	28	11	0	0
49	36	30	12	0	0
50	36	31	13	0	400
51	36	32	14	0	350
52	36	33	15	0	300
53	36	34	17	0	300
54	36	35	19	0	300
55	36	36	21	0	400
56	36	37	22	0	694
57	36	38	25	0	750
58	36	39	28	0	800
59	36	40	31	0	850
60	36	56	36	0	1,219
61	36	71	42	0	1,655
62	36	85	48	0	2,000
63	36	97	55	0	2,000
64	36	107	63	0	2,000
65	0	0	72	0	4,000
66	0	0	82	0	2,000
67	0	0	93	0	2,500
68	0	0	104	0	2,200
69	0	0	116	0	3,000
70	0	0	0	0	10,000

Schedule 11
Probability of Separation from Active Service
 (Number separating at each age per 10,000 working at that age)

General Male Members – Plan 3

Age	With (svc<1)	With (1<svc<2)	With (2<svc<3)	With (3<svc<4)	With (4<svc<5)	With (svc>5)	Vested Term
20	3,000	1,387	1,387	1,387	600	0	0
21	3,000	1,387	1,387	1,387	600	0	0
22	3,000	1,387	1,387	1,387	600	0	0
23	3,000	1,387	1,387	1,387	600	0	0
24	3,000	1,387	1,387	1,387	600	0	0
25	3,000	1,387	1,387	1,387	600	0	85
26	3,000	1,387	1,387	1,387	600	0	85
27	3,000	1,387	1,387	1,387	600	0	90
28	3,000	1,387	1,387	1,387	600	0	90
29	3,000	1,387	1,387	1,387	600	0	95
30	3,000	1,387	1,387	1,387	600	0	100
31	3,000	1,387	1,387	1,387	600	0	105
32	3,000	1,387	1,387	1,387	600	0	110
33	3,000	1,387	1,387	1,387	600	0	115
34	3,000	1,387	1,387	1,387	600	0	125
35	3,000	1,387	1,387	1,387	600	0	135
36	3,000	1,387	1,387	1,387	600	0	160
37	3,000	1,387	1,387	1,387	600	0	180
38	3,000	1,387	1,387	1,387	600	0	195
39	3,000	1,387	1,387	1,387	600	0	205
40	3,000	1,387	1,387	1,387	600	0	210
41	3,000	1,387	1,387	1,387	600	0	215
42	3,000	1,387	1,387	1,387	600	0	215
43	3,000	1,387	1,387	1,387	600	0	220
44	3,000	1,387	1,387	1,387	600	0	230
45	3,000	1,387	1,387	1,387	600	0	240
46	3,000	1,387	1,387	1,387	600	0	250
47	3,000	1,387	1,387	1,387	600	0	260
48	3,000	1,387	1,387	1,387	600	0	250
49	3,000	1,387	1,387	1,387	600	0	245
50	3,000	1,387	1,387	1,387	600	0	245
51	3,000	1,387	1,387	1,387	600	0	225
52	3,000	1,387	1,387	1,387	600	0	200
53	3,000	1,387	1,387	1,387	600	0	175
54	3,000	1,387	1,387	1,387	600	0	140
55	3,000	1,387	1,387	1,387	600	0	120
56	3,000	1,387	1,387	1,387	600	0	110
57	3,000	1,387	1,387	1,387	600	0	100
58	3,000	1,387	1,387	1,387	600	0	90
59	3,000	1,387	1,387	1,387	600	0	80
60	3,000	1,387	1,387	1,387	600	0	70
61	3,000	1,387	1,387	1,387	600	0	60
62	3,000	1,387	1,387	1,387	600	0	50
63	3,000	1,387	1,387	1,387	600	0	40
64	3,000	1,387	1,387	1,387	600	0	30
65	3,000	1,387	1,387	1,387	600	0	0
66	3,000	1,387	1,387	1,387	600	0	0
67	3,000	1,387	1,387	1,387	600	0	0
68	3,000	1,387	1,387	1,387	600	0	0
69	3,000	1,387	1,387	1,387	600	0	0
70	0	0	0	0	0	0	0

Schedule 12
Probability of Separation from Active Service - continued
(Number separating at each age per 10,000 working at that age)

General Male Members – Plan 3

Age	Ordinary Disability	Duty Disability	Ordinary Death	Duty Death	Service Retirement
20	0	0	2	1	0
21	0	0	2	1	0
22	0	0	2	1	0
23	0	0	2	1	0
24	0	0	2	1	0
25	2	0	3	1	0
26	2	0	3	1	0
27	2	0	3	1	0
28	2	0	3	1	0
29	2	0	3	1	0
30	2	0	3	1	0
31	2	0	4	1	0
32	2	0	4	1	0
33	2	0	5	1	0
34	2	0	5	1	0
35	3	1	5	1	0
36	4	1	6	1	0
37	4	1	6	1	0
38	5	1	6	1	0
39	5	1	6	1	0
40	6	1	6	1	0
41	6	1	7	1	0
42	7	1	8	1	0
43	8	1	9	1	0
44	9	1	10	2	0
45	10	2	12	2	0
46	11	2	14	2	0
47	12	2	16	2	0
48	14	2	18	2	0
49	15	2	20	2	0
50	16	2	22	2	0
51	18	3	24	2	0
52	19	4	26	3	0
53	21	4	28	3	0
54	23	5	30	3	0
55	25	5	32	3	513
56	27	6	34	3	660
57	29	6	36	4	806
58	32	7	38	4	953
59	34	8	40	4	1,099
60	38	9	42	4	1,200
61	40	10	44	4	1,250
62	42	11	46	5	2,500
63	45	12	48	5	2,000
64	47	13	50	5	2,000
65	0	0	52	5	2,553
66	0	0	56	5	2,553
67	0	0	60	6	2,918
68	0	0	65	6	3,283
69	0	0	70	6	3,647
70	0	0	0	0	10,000

Schedule 13
Probability of Separation from Active Service
 (Number separating at each age per 10,000 working at that age)

General Female Members – Plan 3

Age	With (svc<1)	With (1<svc<2)	With (2<svc<3)	With (3<svc<4)	With (4<svc<5)	With (svc>5)	Vested Term
20	2,000	2,000	1,000	1,000	800	0	0
21	2,000	2,000	1,000	1,000	800	0	0
22	2,000	2,000	1,000	1,000	800	0	0
23	2,000	2,000	1,000	1,000	800	0	0
24	2,000	2,000	1,000	1,000	800	0	0
25	2,000	2,000	1,000	1,000	800	0	0
26	2,000	2,000	1,000	1,000	800	0	0
27	2,000	2,000	1,000	1,000	800	0	0
28	2,000	2,000	1,000	1,000	800	0	0
29	2,000	2,000	1,000	1,000	800	0	0
30	2,000	2,000	1,000	1,000	800	0	400
31	2,000	2,000	1,000	1,000	800	0	400
32	2,000	2,000	1,000	1,000	800	0	400
33	2,000	2,000	1,000	1,000	800	0	400
34	2,000	2,000	1,000	1,000	800	0	400
35	2,000	2,000	1,000	1,000	800	0	400
36	2,000	2,000	1,000	1,000	800	0	400
37	2,000	2,000	1,000	1,000	800	0	400
38	2,000	2,000	1,000	1,000	800	0	400
39	2,000	2,000	1,000	1,000	800	0	400
40	2,000	2,000	1,000	1,000	800	0	300
41	2,000	2,000	1,000	1,000	800	0	280
42	2,000	2,000	1,000	1,000	800	0	240
43	2,000	2,000	1,000	1,000	800	0	200
44	2,000	2,000	1,000	1,000	800	0	180
45	2,000	2,000	1,000	1,000	800	0	175
46	2,000	2,000	1,000	1,000	800	0	170
47	2,000	2,000	1,000	1,000	800	0	165
48	2,000	2,000	1,000	1,000	800	0	155
49	2,000	2,000	1,000	1,000	800	0	140
50	2,000	2,000	1,000	1,000	800	0	130
51	2,000	2,000	1,000	1,000	800	0	125
52	2,000	2,000	1,000	1,000	800	0	120
53	2,000	2,000	1,000	1,000	800	0	115
54	2,000	2,000	1,000	1,000	800	0	100
55	2,000	2,000	1,000	1,000	800	0	105
56	2,000	2,000	1,000	1,000	800	0	100
57	2,000	2,000	1,000	1,000	800	0	90
58	2,000	2,000	1,000	1,000	800	0	80
59	2,000	2,000	1,000	1,000	800	0	70
60	2,000	2,000	1,000	1,000	800	0	60
61	2,000	2,000	1,000	1,000	800	0	50
62	2,000	2,000	1,000	1,000	800	0	40
63	2,000	2,000	1,000	1,000	800	0	30
64	2,000	2,000	1,000	1,000	800	0	20
65	2,000	2,000	1,000	1,000	800	0	0
66	2,000	2,000	1,000	1,000	800	0	0
67	2,000	2,000	1,000	1,000	800	0	0
68	2,000	2,000	1,000	1,000	800	0	0
69	2,000	2,000	1,000	1,000	800	0	0
70	0	0	0	0	0	0	0

Schedule 14
Probability of Separation from Active Service - continued
(Number separating at each age per 10,000 working at that age)

General Female Members – Plan 3

Age	Ordinary Disability	Duty Disability	Ordinary Death	Duty Death	Service Retirement
20	0	0	3	0	0
21	0	0	3	0	0
22	0	0	3	0	0
23	0	0	3	0	0
24	0	0	3	0	0
25	0	0	3	0	0
26	0	0	3	0	0
27	0	0	3	0	0
28	0	0	3	0	0
29	0	0	3	0	0
30	1	0	3	0	0
31	1	0	4	0	0
32	1	0	4	0	0
33	1	0	4	0	0
34	1	0	4	0	0
35	2	1	5	0	0
36	2	1	5	0	0
37	2	1	5	0	0
38	2	1	6	0	0
39	2	1	6	0	0
40	2	1	6	0	0
41	2	1	7	0	0
42	3	1	8	0	0
43	4	1	8	0	0
44	5	1	9	0	0
45	6	2	9	0	0
46	6	2	10	0	0
47	8	2	10	0	0
48	8	2	11	0	0
49	9	2	12	0	0
50	10	3	13	0	0
51	11	3	14	0	0
52	12	4	15	0	0
53	14	4	17	0	0
54	17	5	19	0	0
55	18	5	21	0	229
56	21	6	22	0	204
57	22	6	25	0	137
58	23	6	28	0	166
59	25	7	31	0	225
60	27	8	36	0	317
61	28	8	42	0	350
62	29	8	48	0	957
63	31	9	55	0	886
64	33	9	63	0	2,000
65	0	0	72	0	2,500
66	0	0	82	0	1,158
67	0	0	93	0	1,244
68	0	0	104	0	4,540
69	0	0	116	0	5,837
70	0	0	0	0	10,000

Schedule 15
Probability of Separation from Active Service
 (Number separating at each age per 10,000 working at that age)

Safety and Probation Members

Age	With (0<svc<1)	With (1<svc<2)	With (2<svc<3)	With (3<svc<4)	With (4<svc<5)	With (svc>5)	Vested Term
20	1,000	799	799	799	799	78	500
21	1,000	754	754	754	754	78	500
22	1,000	709	709	709	709	78	500
23	1,000	663	663	663	663	78	500
24	1,000	618	618	618	618	78	500
25	1,000	474	474	474	474	78	400
26	1,000	449	449	449	449	78	400
27	1,000	424	424	424	424	78	400
28	1,000	411	411	411	411	78	400
29	1,000	399	399	399	399	78	400
30	1,000	369	369	369	369	78	400
31	1,000	357	357	357	357	78	300
32	1,000	345	345	345	345	77	250
33	1,000	333	333	333	333	77	250
34	1,000	321	321	321	321	77	250
35	1,000	310	310	310	310	77	225
36	1,000	299	299	299	299	77	200
37	1,000	289	289	289	289	77	200
38	1,000	278	278	278	278	77	200
39	1,000	267	267	267	267	77	175
40	1,000	257	257	257	257	76	150
41	1,000	214	214	214	214	76	125
42	1,000	172	172	172	172	76	100
43	1,000	129	129	129	129	66	100
44	1,000	86	86	86	86	61	100
45	1,000	56	56	56	56	56	100
46	1,000	51	51	51	51	51	100
47	1,000	46	46	46	46	46	100
48	1,000	41	41	41	41	41	100
49	1,000	36	36	36	36	36	100
50	1,000	13	13	13	13	0	75
51	1,000	13	13	13	13	0	65
52	1,000	7	7	7	7	0	55
53	1,000	7	7	7	7	0	50
54	1,000	7	7	7	7	0	50
55	1,000	0	0	0	0	0	50
56	1,000	0	0	0	0	0	50
57	1,000	0	0	0	0	0	50
58	1,000	0	0	0	0	0	50
59	1,000	0	0	0	0	0	50
60	0	0	0	0	0	0	0

Schedule 16
Probability of Separation from Active Service - continued
(Number separating at each age per 10,000 working at that age)

Safety and Probation Members

Age	Ordinary Disability	Duty Disability	Ordinary Death	Duty Death	Service Retirement
20	0	8	2	5	0
21	0	9	2	5	0
22	0	10	2	5	0
23	0	11	2	5	0
24	0	12	2	5	0
25	2	10	3	5	0
26	2	11	3	5	0
27	2	11	4	5	0
28	2	12	4	4	0
29	2	13	4	4	0
30	3	11	3	5	0
31	3	11	4	5	0
32	4	12	3	5	0
33	4	12	4	5	0
34	5	12	4	5	0
35	4	12	4	5	0
36	5	16	4	5	0
37	6	20	4	5	0
38	7	23	4	5	0
39	8	26	4	6	0
40	9	47	4	6	0
41	10	57	4	6	0
42	10	70	5	7	0
43	11	81	5	7	0
44	11	92	6	7	0
45	12	100	6	7	0
46	12	105	7	7	0
47	12	110	8	7	0
48	12	115	8	7	0
49	12	120	8	7	0
50	12	125	9	7	3,300
51	12	130	9	7	2,500
52	15	135	9	7	2,500
53	20	150	10	7	3,300
54	30	167	12	10	3,300
55	35	175	13	11	5,000
56	36	200	14	11	5,000
57	38	225	15	12	5,000
58	40	250	17	15	5,000
59	41	275	19	0	5,000
60	0	0	0	0	10,000

Schedule 17
Rate of Salary Increase

Age	General		Safety		Age	General		Safety	
	Unisex		Unisex			Unisex		Unisex	
20	9.74%		8.84%		46	5.60%		5.10%	
21	9.49%		8.79%		47	5.50%		5.00%	
22	9.24%		8.74%		48	5.36%		4.95%	
23	9.24%		8.69%		49	5.22%		4.90%	
24	8.99%		8.64%		50	5.08%		4.85%	
25	8.74%		8.59%		51	4.94%		4.80%	
26	8.49%		8.54%		52	4.80%		4.75%	
27	8.24%		8.49%		53	4.78%		4.70%	
28	8.19%		8.29%		54	4.76%		4.65%	
29	8.14%		8.09%		55	4.74%		4.60%	
30	8.09%		7.89%		56	4.72%		4.55%	
31	8.04%		7.69%		57	4.70%		4.50%	
32	7.99%		7.49%		58	4.68%		4.48%	
33	7.74%		7.24%		59	4.66%		4.46%	
34	7.49%		6.99%		60	4.64%		4.00%	
35	7.24%		6.74%		61	4.62%		4.00%	
36	6.99%		6.49%		62	4.60%		4.00%	
37	6.74%		6.24%		63	4.58%		4.00%	
38	6.59%		6.09%		64	4.56%		4.00%	
39	6.44%		5.94%		65	4.54%		4.00%	
40	6.29%		5.80%		66	4.52%		4.00%	
41	6.14%		5.65%		67	4.50%		4.00%	
42	5.99%		5.50%		68	4.48%		4.00%	
43	5.89%		5.40%		69	4.46%		4.00%	
44	5.80%		5.30%		>=70	4.00%		4.00%	
45	5.70%		5.20%						

M. Member Information

Active Participants

General Plan 1	June 30, 2004	June 30, 2003
Number	328	370
Average Age	57.6	56.4
Average Service	28.6	27.6
Percent Male	40.6%	N/A
Average Annual Pay	\$78,165	\$72,835
Total Covered Payroll	\$25,639,853	\$26,949,000
Valuation Payroll	\$25,240,496	N/A
General Plan 2		
Number	1,782	1,836
Average Age	49.1	47.9
Average Service	12.5	11.1
Percent Male	31.6%	N/A
Average Annual Pay	\$71,755	\$66,879
Total Covered Payroll	\$127,883,561	\$122,789,000
Valuation Payroll	\$127,353,321	N/A
General Plan 3		
Number	169	152
Average Age	43.2	42.6
Average Service	8.7	8.1
Percent Male	30.2%	N/A
Average Annual Pay	\$61,216	\$56,961
Total Covered Payroll	\$10,345,449	\$8,658,000
Valuation Payroll	\$10,267,896	N/A
General Plan 4		
Number	2,208	1,855
Average Age	40.5	38.8
Average Service	2.9	2.1
Percent Male	29.9%	N/A
Average Annual Pay	\$63,369	\$58,627
Total Covered Payroll	\$139,918,016	\$108,754,000
Valuation Payroll	\$139,929,269	N/A
General Total		
Number	4,487	4,213
Average Age	45.3	44.4
Average Service	8.9	8.5
Percent Male	31.3%	N/A
Average Annual Pay	\$67,700	\$63,411
Total Covered Payroll	\$303,786,879	\$267,150,000
Valuation Payroll	\$302,790,982	N/A

Safety Plan 1	June 30, 2004	June 30, 2003
Number	48	68
Average Age	54.1	53.7
Average Service	27.9	27.2
Percent Male	93.8%	N/A
Average Annual Pay	\$114,192	\$102,000
Total Covered Payroll	\$5,506,336	\$6,936,000
Valuation Payroll	\$4,862,852	N/A

Safety Plan 2		
Number	199	209
Average Age	44.7	43.4
Average Service	14.8	13.2
Percent Male	82.4%	N/A
Average Annual Pay	\$102,355	\$90,220
Total Covered Payroll	\$20,368,548	\$18,856,000
Valuation Payroll	\$20,368,548	N/A

Safety Plan 4		
Number	164	157
Average Age	36.1	34.3
Average Service	3.8	2.5
Percent Male	84.8%	N/A
Average Annual Pay	\$90,988	\$77,586
Total Covered Payroll	\$14,921,968	\$12,181,000
Valuation Payroll	\$14,921,968	N/A

Safety Total		
Number	411	434
Average Age	42.3	41.7
Average Service	11.9	11.5
Percent Male	84.7%	N/A
Average Annual Pay	\$99,202	\$87,495
Total Covered Payroll	\$40,796,852	\$37,973,000
Valuation Payroll	\$40,143,368	N/A

Probation Plan 1	June 30, 2004	June 30, 2003
Number	22	28
Average Age	54.9	54.4
Average Service	15.1	13.1
Percent Male	86.4%	N/A
Average Annual Pay	\$84,266	\$78,571
Total Covered Payroll	\$1,853,844	\$2,200,000
Valuation Payroll	\$1,768,324	N/A

Probation Plan 2		
Number	103	104
Average Age	42.7	41.6
Average Service	11.1	9.8
Percent Male	53.4%	N/A
Average Annual Pay	\$75,491	\$69,596
Total Covered Payroll	\$7,775,529	\$7,238,000
Valuation Payroll	\$7,697,431	N/A

Probation Plan 4		
Number	163	158
Average Age	36.1	34.8
Average Service	3.7	2.4
Percent Male	45.4%	N/A
Average Annual Pay	\$68,536	\$59,082
Total Covered Payroll	\$11,171,440	\$9,335,000
Valuation Payroll	\$11,171,440	N/A

Probation Total		
Number	288	290
Average Age	39.9	39.1
Average Service	7.2	6.1
Percent Male	51.4%	N/A
Average Annual Pay	\$72,225	\$64,734
Total Covered Payroll	\$20,800,813	\$18,773,000
Valuation Payroll	\$20,637,195	N/A

Total Active Members	June 30, 2004	June 30, 2003
Number	5,186	4,937
Average Age	44.8	
Average Service	9.1	
Percent Male	36.7%	
Average Annual Pay	\$70,448	\$65,606
Total Covered Payroll	\$365,384,544	\$323,896,000
Valuation Payroll	\$363,581,545	N/A

2003 data are as shown in the report of the prior actuary.

Terminated Vested Participants

General **June 30, 2004**

Plan 1

Number	79
Average Age	55.4
Total Annual Allowance	\$1,373,835
Average Monthly Benefit	\$1,449

Plan 2

Number	486
Average Age	46.2
Total Annual Allowance	\$6,218,357
Average Monthly Benefit	\$1,066

Plan 3

Number	117
Average Age	50.8
Total Annual Allowance	\$655,061
Average Monthly Benefit	\$467

Plan 4

Number	101
Average Age	42.7
Total Annual Allowance	\$588,135
Average Monthly Benefit	\$485

Total General

Number	783
Average Age	47.4
Total Annual Allowance	\$8,835,388
Average Monthly Benefit	\$940

Safety **June 30, 2004**

Plan 1

Number	2
Average Age	57.5
Total Annual Allowance	\$286,866
Average Monthly Benefit	\$11,954

Plan 2

Number	36
Average Age	41.1
Total Annual Allowance	\$809,268
Average Monthly Benefit	\$1,873

Plan 4

Number	13
Average Age	36.2
Total Annual Allowance	\$110,607
Average Monthly Benefit	\$709

Total Safety

Number	51
Average Age	40.5
Total Annual Allowance	\$1,206,761
Average Monthly Benefit	\$1,972

Probation **June 30, 2004**

Plan 1

Number	0
Average Age	0
Total Annual Allowance	0
Average Monthly Benefit	0

Plan 2

Number	30
Average Age	40.9
Total Annual Allowance	\$420,961
Average Monthly Benefit	\$1,169

Plan 4

Number	13
Average Age	33.3
Total Annual Allowance	\$205,872
Average Monthly Benefit	\$1,320

Total Probation

Number	43
Average Age	38.6
Total Annual Allowance	\$626,833
Average Monthly Benefit	\$1,215

Total Vested Terminated

Number	877
Average Age	46.5
Total Annual Allowance	\$10,668,982
Average Monthly Benefit	\$1,014

Retired Participants

Service Retirements

General

June 30, 2004

Plan 1

Number	1,742
Average Age	75.0
Total Annual Allowance	\$38,574,528
Average Monthly Benefit	\$1,845

Plan 2

Number	579
Average Age	65.4
Total Annual Allowance	\$7,175,376
Average Monthly Benefit	\$1,033

Plan 3

Number	90
Average Age	66.6
Total Annual Allowance	\$358,920
Average Monthly Benefit	\$332

Plan 4

Number	4
Average Age	58.25
Total Annual Allowance	\$7,344
Average Monthly Benefit	\$153

Total General

Number	2,415
Average Age	72.3
Total Annual Allowance	\$46,116,168
Average Monthly Benefit	\$1,591

Safety **June 30, 2004**

Plan 1

Number	178
Average Age	64.8
Total Annual Allowance	\$10,151,376
Average Monthly Benefit	\$4,753

Plan 2

Number	16
Average Age	59.4
Total Annual Allowance	\$442,812
Average Monthly Benefit	\$2,306

Plan 4

Number	0
Average Age	0
Total Annual Allowance	\$0
Average Monthly Benefit	\$0

Total Safety

Number	194
Average Age	64.4
Total Annual Allowance	\$10,594,188
Average Monthly Benefit	\$4,551

Probation **June 30, 2004**

Plan 1

Number	84
Average Age	63.8
Total Annual Allowance	\$2,331,576
Average Monthly Benefit	\$2,313

Plan 2

Number	12
Average Age	63.3
Total Annual Allowance	\$178,692
Average Monthly Benefit	\$1,241

Plan 4

Number	1
Average Age	57.0
Total Annual Allowance	\$3,948
Average Monthly Benefit	\$329

Total Probation

Number	97
Average Age	63.7
Total Annual Allowance	\$2,514,216
Average Monthly Benefit	\$2,160

**Total Service
Retirements**

June 30, 2004

June 30, 2003

Number	2,706	2,637
Average Age	71.5	N/A
Total Annual Allowance	\$59,224,572	\$54,114,000
Average Monthly Benefit	\$1,824	\$1,710



Disability Retirements

General

June 30, 2004

Plan 1

Number	117
Average Age	70.3
Total Annual Allowance	\$2,306,388
Average Monthly Benefit	\$1,643

Plan 2

Number	137
Average Age	57.0
Total Annual Allowance	\$2,751,072
Average Monthly Benefit	\$1,673

Plan 3

Number	1
Average Age	66.0
Total Annual Allowance	\$2,364
Average Monthly Benefit	\$197

Plan 4

Number	1
Average Age	50.0
Total Annual Allowance	\$30,288
Average Monthly Benefit	\$2,524

Total General

Number	256
Average Age	63.1
Total Annual Allowance	\$5,090,112
Average Monthly Benefit	\$1,657

Safety **June 30, 2004**

Plan 1

Number	53
Average Age	63.6
Total Annual Allowance	\$2,217,276
Average Monthly Benefit	\$3,486

Plan 2

Number	28
Average Age	48.9
Total Annual Allowance	\$989,736
Average Monthly Benefit	\$2,946

Plan 4

Number	0
Average Age	0
Total Annual Allowance	\$0
Average Monthly Benefit	\$0

Total Safety

Number	81
Average Age	58.5
Total Annual Allowance	\$3,207,012
Average Monthly Benefit	\$3,299

Probation **June 30, 2004**

Plan 1

Number	0
Average Age	0
Total Annual Allowance	\$0
Average Monthly Benefit	\$0

Plan 2

Number	2
Average Age	47.0
Total Annual Allowance	\$68,736
Average Monthly Benefit	\$1,614

Plan 4

Number	0
Average Age	0
Total Annual Allowance	\$0
Average Monthly Benefit	\$0

Total Probation

Number	2
Average Age	47.0
Total Annual Allowance	\$38,736
Average Monthly Benefit	\$1,614

**Total Disability
Retirements****June 30, 2004****June 30, 2003**

Number	339	329
Average Age	61.9	N/A
Total Annual Allowance	\$8,335,860	\$ 7,718,000
Average Monthly Benefit	\$2,049	\$1,915

*Actuaries you can understand*

Beneficiaries

General

June 30, 2004

Plan 1

Number	364
Average Age	78.7
Total Annual Allowance	\$5,432,040
Average Monthly Benefit	\$1,244

Plan 2

Number	57
Average Age	56.9
Total Annual Allowance	\$874,632
Average Monthly Benefit	\$1,279

Plan 3

Number	7
Average Age	66.6
Total Annual Allowance	\$28,116
Average Monthly Benefit	\$335

Plan 4

Number	0
Average Age	0
Total Annual Allowance	\$0
Average Monthly Benefit	\$0

Total General

Number	428
Average Age	75.6
Total Annual Allowance	\$6,334,788
Average Monthly Benefit	\$1,233

Safety**June 30, 2004**

Plan 1

Number	52
Average Age	65.8
Total Annual Allowance	\$1,427,124
Average Monthly Benefit	\$2,287

Plan 2

Number	5
Average Age	55.0
Total Annual Allowance	\$39,480
Average Monthly Benefit	\$658

Plan 4

Number	0
Average Age	0
Total Annual Allowance	0
Average Monthly Benefit	0

Total Safety

Number	57
Average Age	64.8
Total Annual Allowance	\$1,466,604
Average Monthly Benefit	\$2,144

Probation **June 30, 2004**

Plan 1

Number	7
Average Age	64.0
Total Annual Allowance	\$110,880
Average Monthly Benefit	\$1,320

Plan 2

Number	2
Average Age	51.0
Total Annual Allowance	\$20,172
Average Monthly Benefit	\$841

Plan 4

Number	0
Average Age	0
Total Annual Allowance	\$0
Average Monthly Benefit	\$0

Total Probation

Number	9
Average Age	61.1
Total Annual Allowance	\$131,052
Average Monthly Benefit	\$1,213

Total Beneficiaries **June 30, 2004** **June 30, 2003**

Number	494	488
Average Age	74.1	N/A
Total Annual Allowance	\$7,932,444	\$7,619,000
Average Monthly Benefit	\$1,338	\$1,301

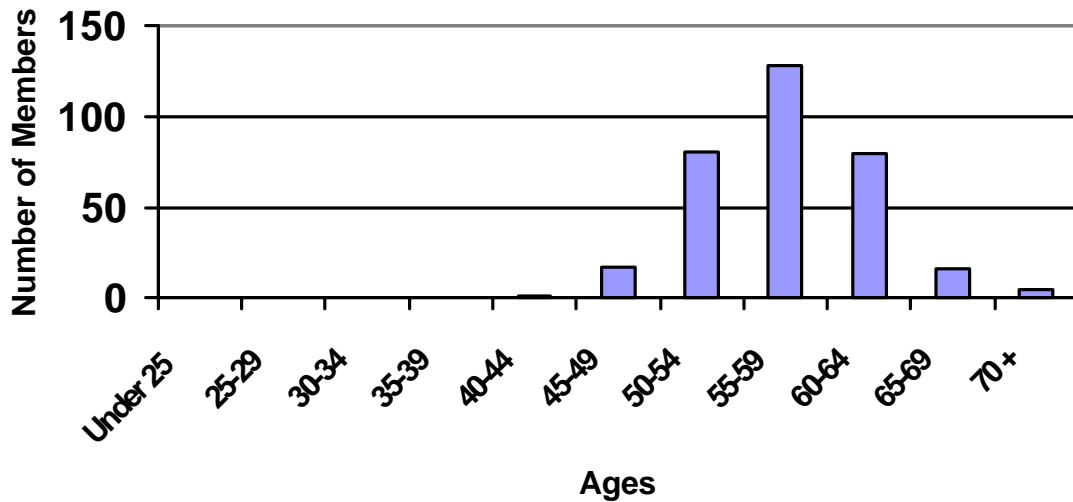
Total Retired Participants	June 30, 2004	June 30, 2003
Number	3,539	3,454
Average Age	70.9	N/A
Total Annual Allowance	\$75,492,876	\$69,451,000
Average Monthly Benefit	\$1,778	\$1,676

2003 data are as shown in the report of the prior actuary.

Active General Plan 1 Members by Age and Service as of June 30, 2004

Service >	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total
Age									
Under 25	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0
40-44	0	0	0	0	0	1	0	0	1
45-49	0	0	0	0	1	5	10	1	17
50-54	0	0	0	3	2	14	34	28	81
55-59	0	0	0	2	3	22	46	55	128
60-64	0	1	0	3	3	8	24	41	80
65-69	1	0	0	0	1	2	4	8	16
70 +	0	0	0	0	0	1	3	1	5
Total	1	1	0	8	10	53	121	134	328

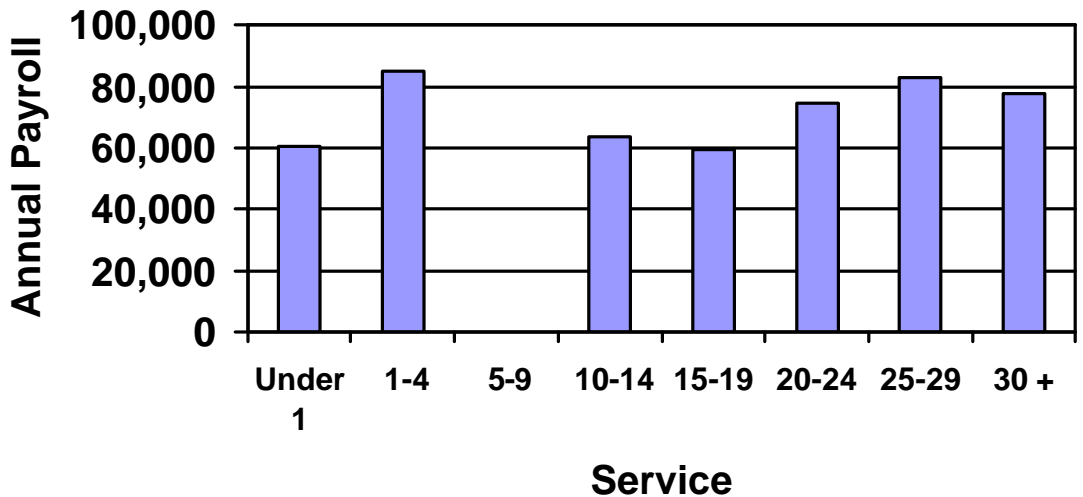
Active General Plan 1 Members by Age



Average Annual Full-Time Compensation for General Plan 1 Members by Age and Service as of June 30, 2004

Service > <u>Age</u>	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total
Under 25	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0
40-44	0	0	0	0	0	50,955	0	0	50,955
45-49	0	0	0	0	49,845	65,257	84,824	60,246	75,565
50-54	0	0	0	83,290	73,833	79,272	80,131	72,224	77,211
55-59	0	0	0	51,966	65,504	69,466	86,811	82,047	80,739
60-64	0	84,950	0	51,328	53,280	94,013	82,546	75,425	77,805
65-69	60,586	0	0	0	43,112	57,253	86,169	78,922	74,641
70 +	0	0	0	0	0	71,377	55,493	57,452	59,062
Total	60,586	84,950	0	63,473	59,697	74,590	83,126	77,436	78,165

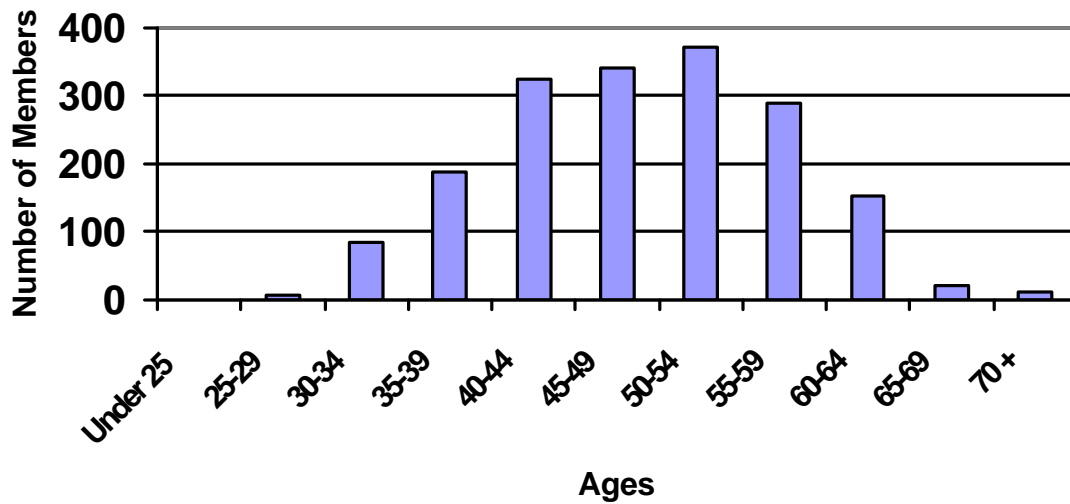
General Plan 1 Member Pay by Service



Active General Plan 2 Members by Age and Service as of June 30, 2004

Service >	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total
Age									
Under 25	0	0	0	0	0	0	0	0	0
25-29	0	0	4	1	0	0	0	0	5
30-34	0	12	49	22	0	0	0	0	83
35-39	2	13	73	77	21	1	0	0	187
40-44	0	17	109	110	74	14	0	0	324
45-49	1	18	79	120	83	39	1	0	341
50-54	5	18	92	148	72	37	0	0	372
55-59	6	12	48	113	68	40	1	0	288
60-64	1	4	28	42	54	23	0	0	152
65-69	0	0	6	5	7	2	0	0	20
70 +	0	0	1	5	2	2	0	0	10
Total	15	94	489	643	381	158	2	0	1,782

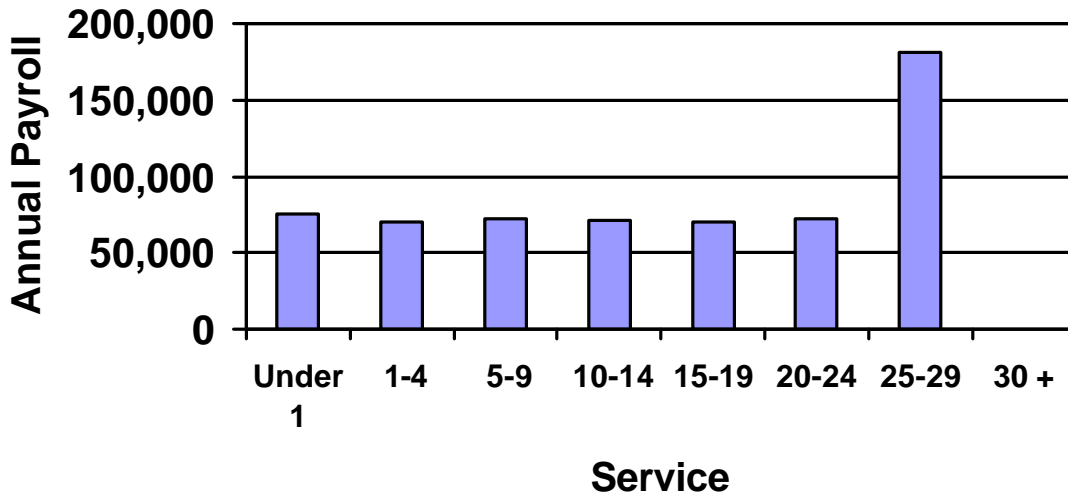
Active General Plan 2 Members by Age



Average Annual Full-Time Compensation for General Plan 2 Members by Age and Service as of June 30, 2004

Service > <u>Age</u>	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30+	Total
Under 25	0	0	0	0	0	0	0	0	0
25-29	0	0	56,005	43,734	0	0	0	0	53,551
30-34	0	65,513	75,353	61,613	0	0	0	0	70,288
35-39	48,563	72,393	70,717	68,594	68,155	65,604	0	0	69,407
40-44	0	71,040	74,599	68,962	71,478	66,189	0	0	71,422
45-49	77,873	77,052	71,741	76,019	71,060	73,485	162,698	0	73,845
50-54	96,714	73,823	72,437	71,627	76,953	77,544	0	0	73,890
55-59	64,607	59,972	75,017	74,654	67,246	70,505	200,000	0	72,003
60-64	79,611	63,242	70,464	72,321	64,908	69,431	0	0	68,717
65-69	0	0	45,379	47,915	74,708	77,026	0	0	59,443
70+	0	0	76,363	49,010	87,688	54,715	0	0	60,649
Total	75,055	70,461	72,525	71,459	70,696	72,202	181,349	0	71,755

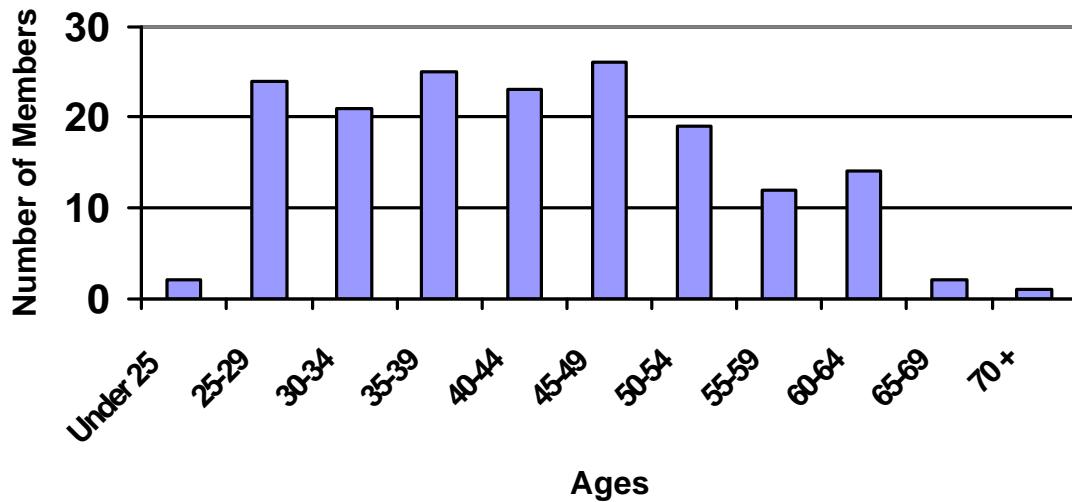
General Plan 2 Member Pay by Service



Active General Plan 3 Members by Age and Service as of June 30, 2004

Service >	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30+	Total
Age									
Under 25	2	0	0	0	0	0	0	0	2
25-29	5	18	1	0	0	0	0	0	24
30-34	2	14	4	1	0	0	0	0	21
35-39	1	9	12	3	0	0	0	0	25
40-44	3	5	1	9	5	0	0	0	23
45-49	1	5	3	8	4	5	0	0	26
50-54	3	3	2	5	3	2	1	0	19
55-59	2	1	2	5	1	1	0	0	12
60-64	1	3	3	2	3	1	1	0	14
65-69	0	1	0	1	0	0	0	0	2
70+	0	0	0	0	1	0	0	0	1
Total	20	59	28	34	17	9	2	0	169

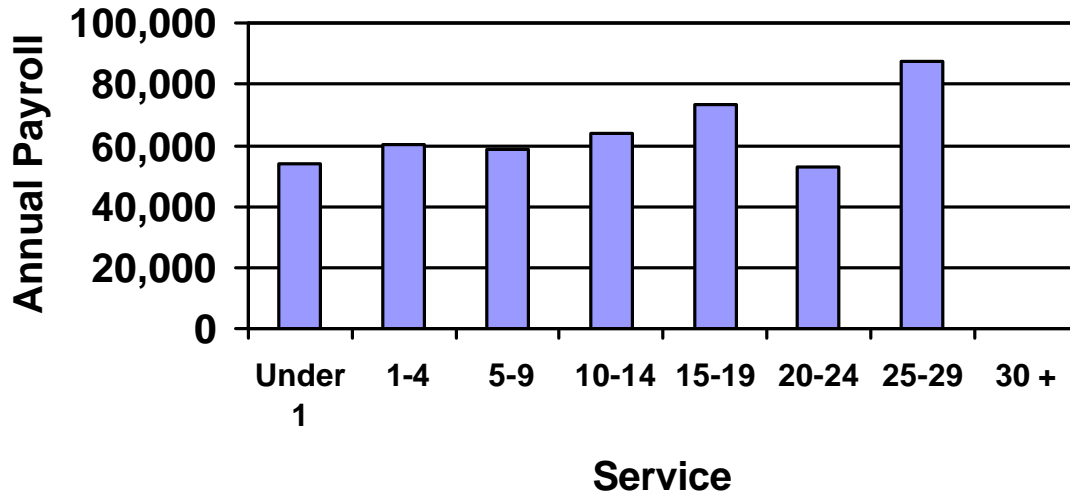
Active General Plan 3 Members by Age



Average Annual Full-Time Compensation For General Plan 3 Members By Age and Service as of June 30, 2004

Service >	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total
<u>Age</u>									
Under 25	43,773	0	0	0	0	0	0	0	43,773
25-29	54,902	55,792	48,604	0	0	0	0	0	55,307
30-34	42,136	60,970	57,778	62,949	0	0	0	0	58,662
35-39	58,958	72,659	58,312	75,751	0	0	0	0	65,596
40-44	68,229	56,371	61,280	70,703	80,109	0	0	0	68,900
45-49	55,831	71,273	84,240	66,925	58,063	59,477	0	0	66,537
50-54	60,654	40,383	59,971	50,692	76,441	41,120	101,755	0	57,360
55-59	41,158	45,521	40,000	62,646	68,872	52,129	0	0	53,505
60-64	47,970	55,861	51,442	45,366	78,859	43,617	73,229	0	58,145
65-69	0	65,805	0	54,794	0	0	0	0	60,299
70 +	0	0	0	0	77,553	0	0	0	77,553
Total	53,903	60,170	58,848	63,945	73,243	52,819	87,492	0	61,216

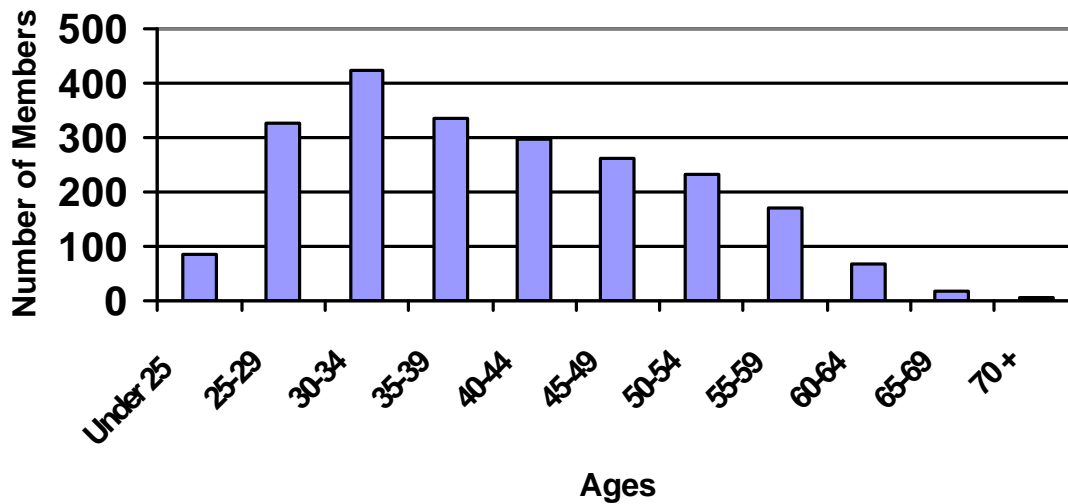
General Plan 3 Member Pay by Service



Active General Plan 4 Members by Age and Service as of June 30, 2004

Service >	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total
Age									
Under 25	30	52	1	0	0	0	0	0	83
25-29	88	212	26	0	0	0	0	0	326
30-34	84	273	66	0	0	0	0	0	423
35-39	57	212	64	0	0	0	0	0	333
40-44	61	174	61	1	0	0	0	0	297
45-49	70	144	47	0	0	0	0	0	261
50-54	52	129	50	0	0	0	0	0	231
55-59	44	94	30	0	0	0	0	0	168
60-64	19	33	14	0	0	0	0	0	66
65-69	4	6	6	0	0	0	0	0	16
70 +	2	2	0	0	0	0	0	0	4
Total	511	1,331	365	1	0	0	0	0	2,208

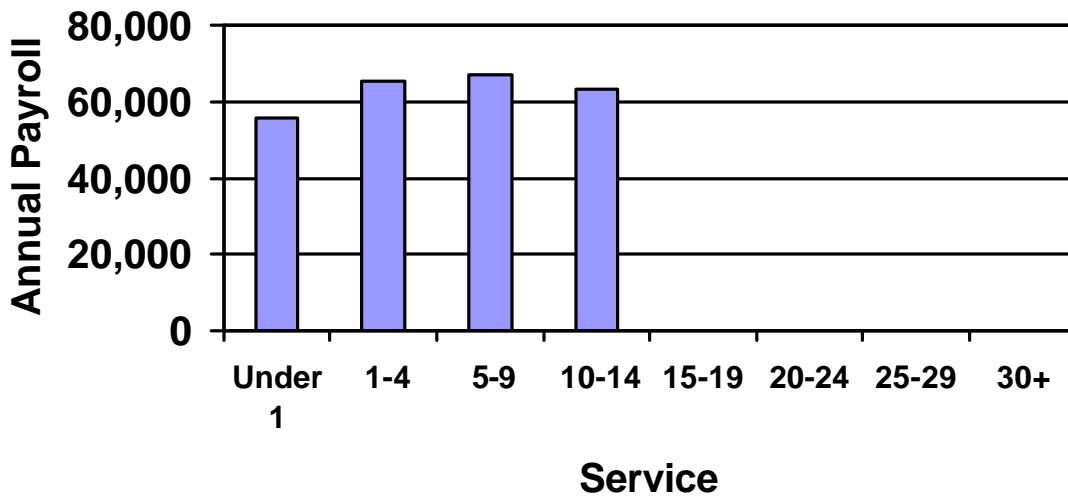
Active General Plan 4 Members by Age



**Average Annual Full-Time Compensation
 for General Plan 4 Members
 by Age and Service as of June 30, 2004**

Service >	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30+	Total
<u>Age</u>									
Under 25	42,323	49,544	46,843	0	0	0	0	0	46,901
25-29	54,240	59,585	60,039	0	0	0	0	0	58,178
30-34	59,189	64,406	66,923	0	0	0	0	0	63,763
35-39	58,631	70,306	65,568	0	0	0	0	0	67,397
40-44	55,393	66,147	64,735	63,349	0	0	0	0	63,639
45-49	57,849	64,065	68,570	0	0	0	0	0	63,209
50-54	55,308	69,863	69,889	0	0	0	0	0	66,592
55-59	59,755	71,088	75,641	0	0	0	0	0	68,933
60-64	57,574	65,199	62,207	0	0	0	0	0	62,369
65-69	34,379	73,499	64,924	0	0	0	0	0	60,504
70+	32,258	66,687	0	0	0	0	0	0	49,473
Total	55,942	65,253	66,896	63,349	0	0	0	0	63,369

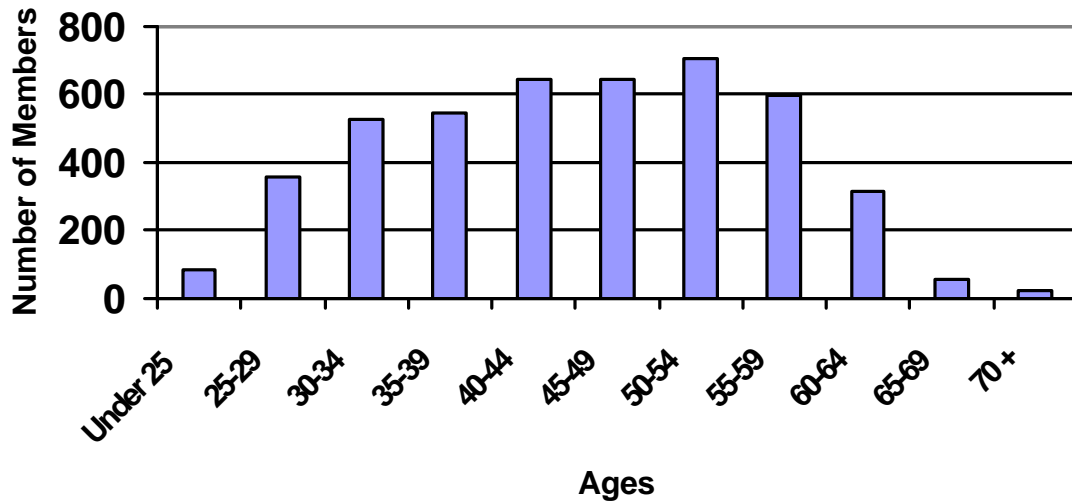
General Plan 4 Member Pay by Service



Active General All Members by Age and Service as of June 30, 2004

Service >	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total
Age									
Under 25	32	52	1	0	0	0	0	0	85
25-29	93	230	31	1	0	0	0	0	355
30-34	86	299	119	23	0	0	0	0	527
35-39	60	234	149	80	21	1	0	0	545
40-44	64	196	171	120	79	15	0	0	645
45-49	72	167	129	128	88	49	11	1	645
50-54	60	150	144	156	77	53	35	28	703
55-59	52	107	80	120	72	63	47	55	596
60-64	21	41	45	47	60	32	25	41	312
65-69	5	7	12	6	8	4	4	8	54
70 +	2	2	1	5	3	3	3	1	20
Total	547	1,485	882	686	408	220	125	134	4,487

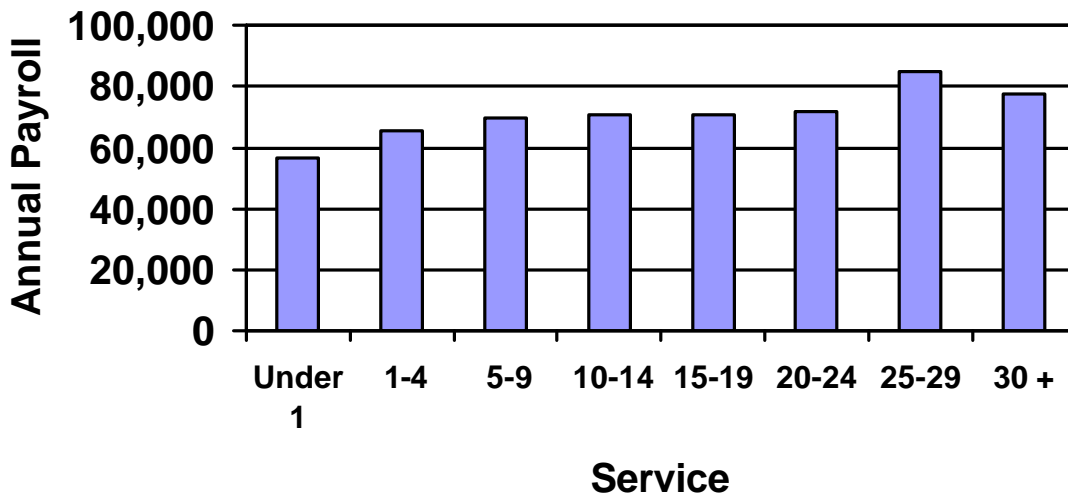
Active General Plan All Members by Age



Average Annual Full-Time Compensation for General Plan All Members by Age and Service as of June 30, 2004

Service > <u>Age</u>	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total
Under 25	42,414	49,544	46,843	0	0	0	0	0	46,827
25-29	54,276	59,288	59,150	43,734	0	0	0	0	57,919
30-34	58,792	64,290	70,087	61,671	0	0	0	0	64,587
35-39	58,301	70,512	67,506	68,862	68,155	65,604	0	0	68,004
40-44	55,995	66,322	71,002	69,046	72,024	65,173	0	0	67,717
45-49	58,099	65,681	70,876	75,451	70,228	71,216	91,903	60,246	69,292
50-54	59,026	69,749	71,379	71,180	76,852	76,626	80,749	72,224	71,428
55-59	59,600	69,602	74,376	73,776	67,196	69,850	89,219	82,047	72,641
60-64	58,166	64,807	66,627	69,834	65,024	74,770	82,173	75,425	69,230
65-69	39,620	72,400	55,152	49,062	70,759	67,140	86,169	78,922	64,292
70 +	32,258	66,687	76,363	49,010	84,310	60,269	55,493	57,452	58,862
Total	56,400	65,394	69,761	70,982	70,533	71,984	84,767	77,436	67,700

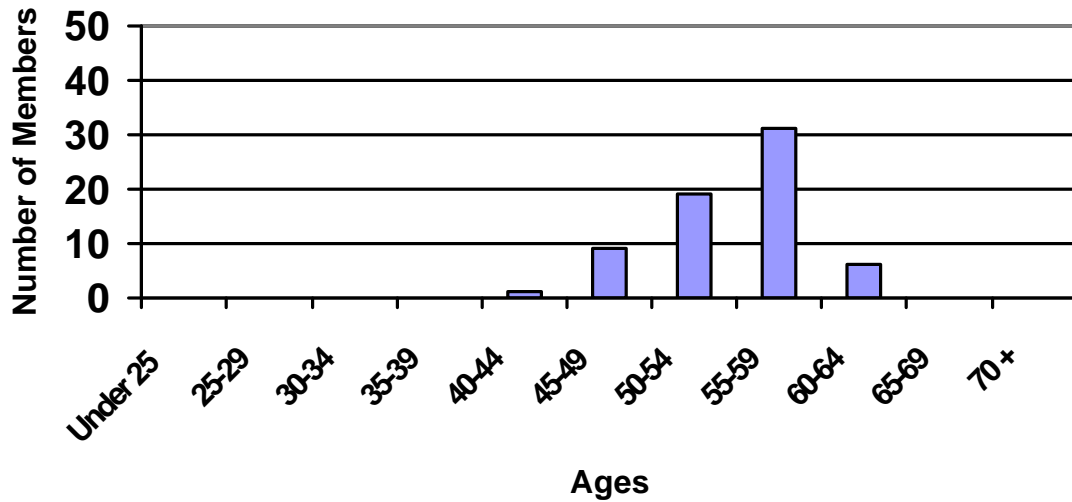
General Plan All Member Pay by Service



Active Safety Plan 1 Members by Age and Service as of June 30, 2004

Service >	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total
Age									
Under 25	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0
40-44	0	0	0	0	0	1	0	0	1
45-49	0	0	0	1	0	5	3	0	9
50-54	0	0	0	0	0	4	11	4	19
55-59	0	0	0	0	0	0	8	5	13
60-64	0	0	0	0	0	1	0	5	6
65-69	0	0	0	0	0	0	0	0	0
70 +	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	11	22	14	48

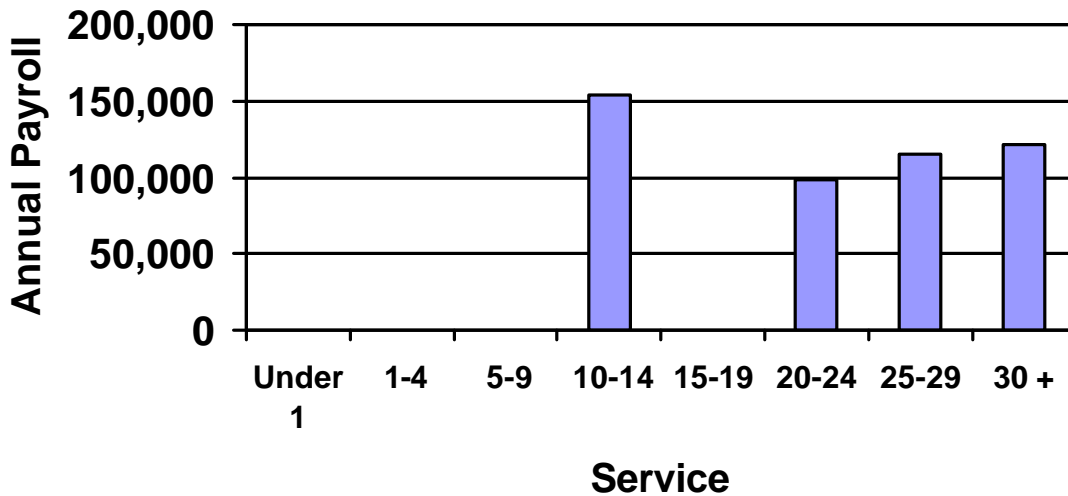
Active Safety Plan 1 Members by Age



Average Annual Full-Time Compensation for Safety Plan 1 Members by Age and Service as of June 30, 2004

Service >	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total
<u>Age</u>									
Under 25	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0
40-44	0	0	0	0	0	89,575	0	0	89,575
45-49	0	0	0	154,261	0	105,191	149,908	0	125,549
50-54	0	0	0	0	0	96,313	111,416	120,115	110,067
55-59	0	0	0	0	0	0	107,303	110,349	108,475
60-64	0	0	0	0	0	88,689	0	134,315	126,710
65-69	0	0	0	0	0	0	0	0	0
70 +	0	0	0	0	0	0	0	0	0
Total	0	0	0	154,261	0	99,043	115,169	121,698	114,192

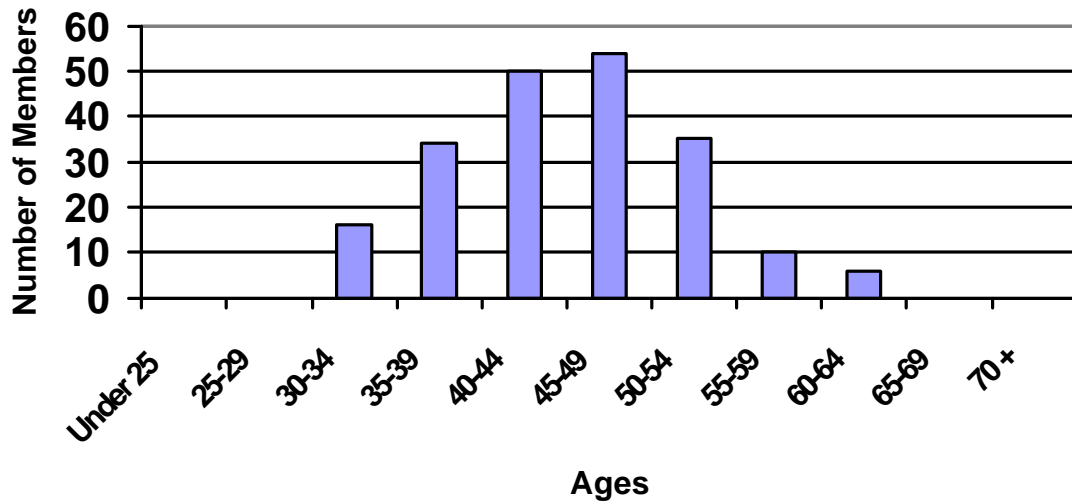
Safety Plan 1 Members Pay by Service



Active Safety Plan 2 Members by Age and Service as of June 30, 2004

Service >	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total
Age									
Under 25	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0
30-34	0	4	8	4	0	0	0	0	16
35-39	0	0	11	14	9	0	0	0	34
40-44	0	3	5	12	24	6	0	0	50
45-49	0	2	8	8	21	13	2	0	54
50-54	0	0	4	6	10	15	0	0	35
55-59	0	0	0	0	5	5	0	0	10
60-64	0	0	0	0	0	0	0	0	0
65-69	0	0	0	0	0	0	0	0	0
70 +	0	0	0	0	0	0	0	0	0
Total	0	9	36	44	69	39	2	0	199

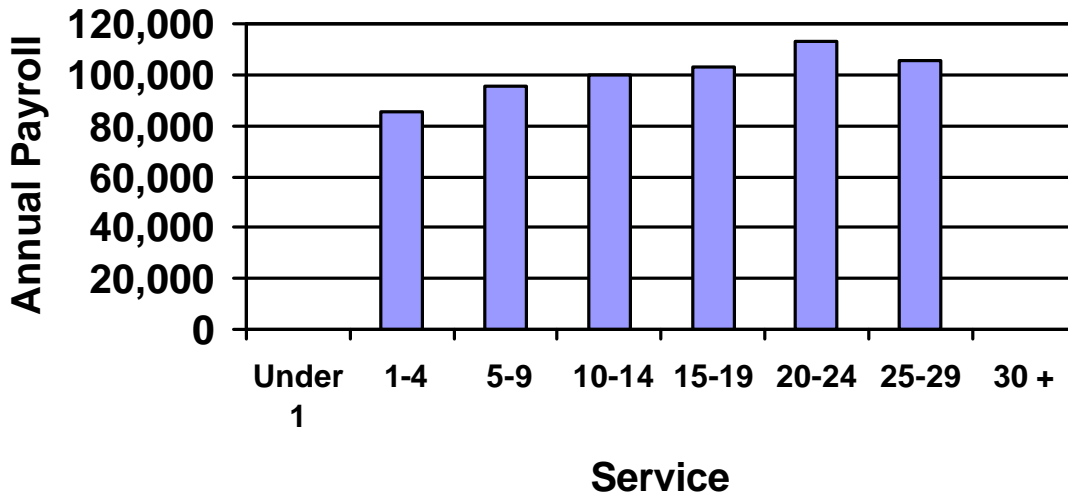
Active Safety Plan 2 Members by Age



Average Annual Full-Time Compensation for Safety Plan 2 Members by Age and Service as of June 30, 2004

Service >	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total
Age									
Under 25	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0
30-34	0	82,496	93,335	101,241	0	0	0	0	92,602
35-39	0	0	96,819	101,698	111,368	0	0	0	102,679
40-44	0	89,482	100,634	99,085	100,959	107,592	0	0	100,584
45-49	0	84,991	97,357	98,579	104,832	107,409	105,840	0	102,721
50-54	0	0	88,716	99,300	102,287	114,561	0	0	105,484
55-59	0	0	0	0	96,948	128,595	0	0	112,771
60-64	0	0	0	0	0	0	0	0	0
65-69	0	0	0	0	0	0	0	0	0
70 +	0	0	0	0	0	0	0	0	0
Total	0	85,379	95,794	100,050	103,397	112,904	105,840	0	102,355

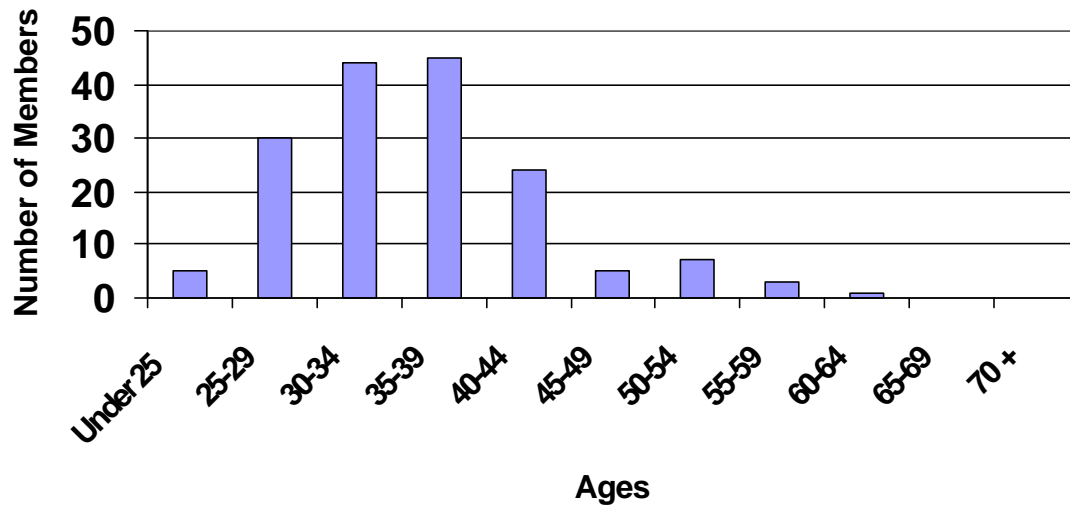
Safety Plan 2 Members Pay by Service



Active Safety Plan 4 Members by Age and Service as of June 30, 2004

Service >	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total
Age									
Under 25	2	3	0	0	0	0	0	0	5
25-29	2	20	8	0	0	0	0	0	30
30-34	2	26	16	0	0	0	0	0	44
35-39	1	22	22	0	0	0	0	0	45
40-44	3	13	8	0	0	0	0	0	24
45-49	0	4	1	0	0	0	0	0	5
50-54	3	2	2	0	0	0	0	0	7
55-59	0	3	0	0	0	0	0	0	3
60-64	0	1	0	0	0	0	0	0	1
65-69	0	0	0	0	0	0	0	0	0
70 +	0	0	0	0	0	0	0	0	0
Total	13	94	57	0	0	0	0	0	164

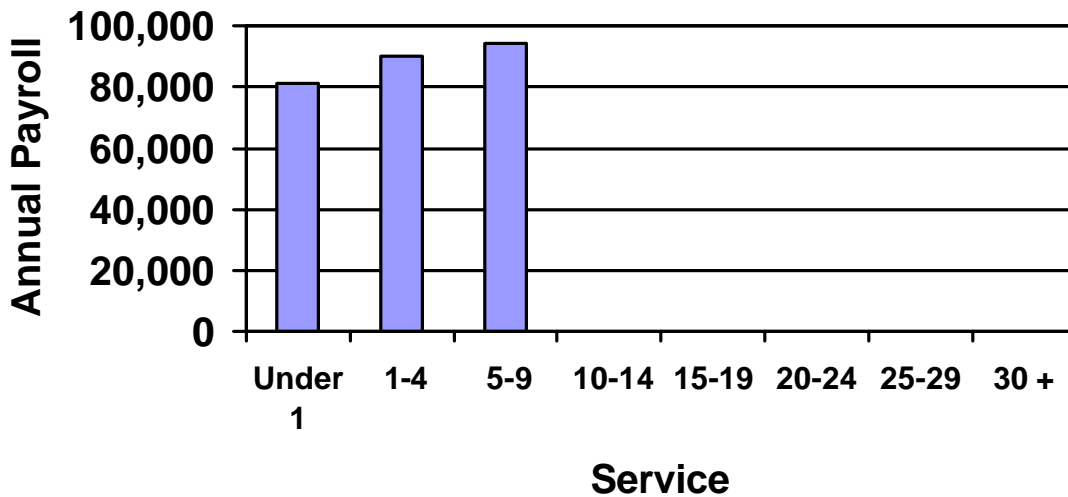
Active Safety Plan 4 Members by Age



Average Annual Full-Time Compensation for Safety Plan 4 Members by Age and Service as of June 30, 2004

Service >	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total
<u>Age</u>									
Under 25	73,852	87,097	0	0	0	0	0	0	81,799
25-29	98,355	85,015	92,674	0	0	0	0	0	87,946
30-34	86,122	91,887	96,114	0	0	0	0	0	93,162
35-39	83,355	90,237	96,343	0	0	0	0	0	93,069
40-44	66,798	93,063	89,731	0	0	0	0	0	88,669
45-49	0	95,181	84,545	0	0	0	0	0	93,054
50-54	85,886	94,430	92,667	0	0	0	0	0	90,265
55-59	0	92,183	0	0	0	0	0	0	92,183
60-64	0	85,600	0	0	0	0	0	0	85,600
65-69	0	0	0	0	0	0	0	0	0
70 +	0	0	0	0	0	0	0	0	0
Total	81,390	90,185	94,500	0	0	0	0	0	90,988

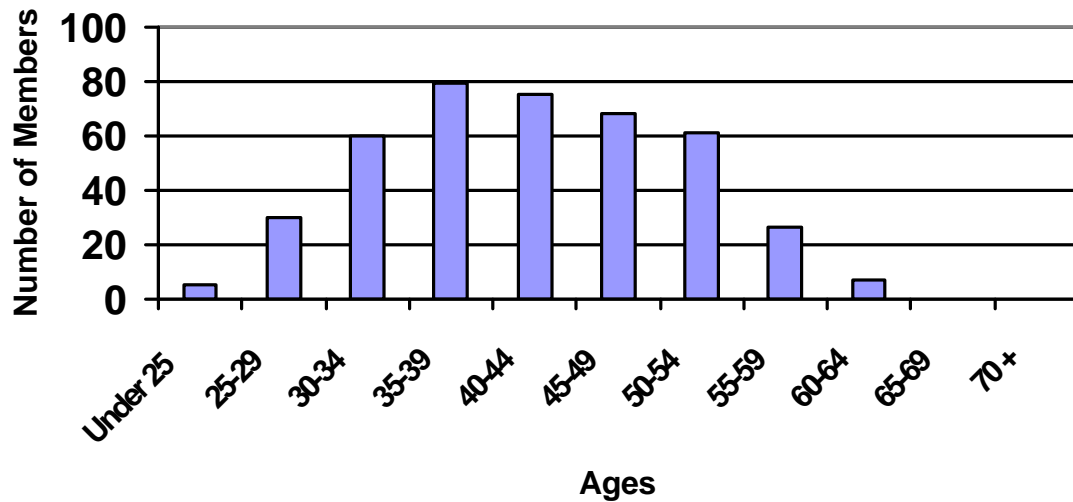
Safety Plan 4 Members Pay by Service



Active Safety Plan All Members by Age and Service as of June 30, 2004

Service >	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30+	Total
Age									
Under 25	2	3	0	0	0	0	0	0	5
25-29	2	20	8	0	0	0	0	0	30
30-34	2	30	24	4	0	0	0	0	60
35-39	1	22	33	14	9	0	0	0	79
40-44	3	16	13	12	24	7	0	0	75
45-49	0	6	9	9	21	18	5	0	68
50-54	3	2	6	6	10	19	11	4	61
55-59	0	3	0	0	5	5	8	5	26
60-64	0	1	0	0	0	1	0	5	7
65-69	0	0	0	0	0	0	0	0	0
70+	0	0	0	0	0	0	0	0	0
Total	13	103	93	45	69	50	24	14	411

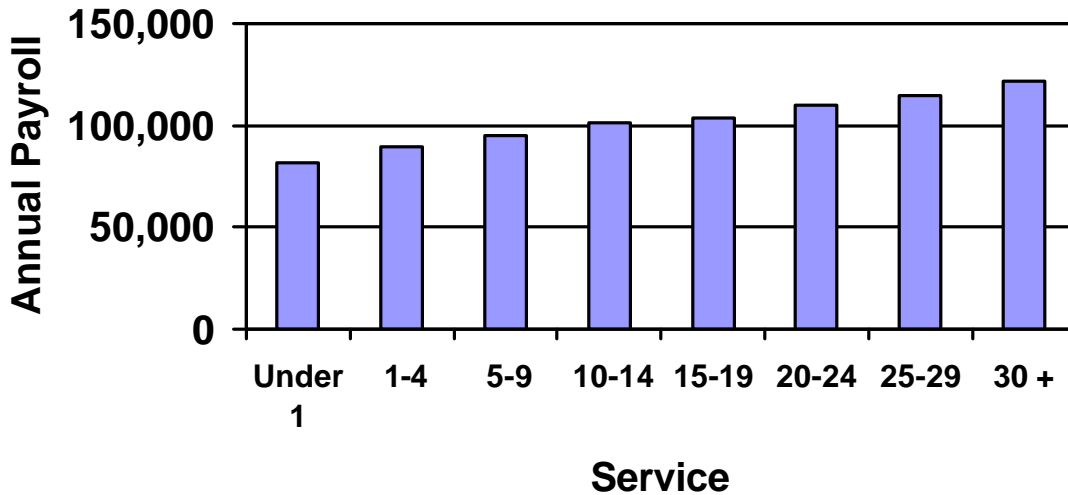
Active Safety All Members by Age



Average Annual Full-Time Compensation for Safety All Members by Age and Service as of June 30, 2004

Service >	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total
Age									
Under 25	73,852	87,097	0	0	0	0	0	0	81,799
25-29	98,355	85,015	92,674	0	0	0	0	0	87,946
30-34	86,122	90,635	95,188	101,241	0	0	0	0	93,013
35-39	83,355	90,237	96,502	101,698	111,368	0	0	0	97,205
40-44	66,798	92,392	93,924	99,085	100,959	105,018	0	0	96,624
45-49	0	91,784	95,933	104,766	104,832	106,793	132,281	0	105,032
50-54	85,886	94,430	90,033	99,300	102,287	110,719	111,416	120,115	105,165
55-59	0	92,183	0	0	96,948	128,595	107,303	110,349	108,247
60-64	0	85,600	0	0	0	88,689	0	134,315	120,837
65-69	0	0	0	0	0	0	0	0	0
70 +	0	0	0	0	0	0	0	0	0
Total	81,390	89,765	95,001	101,255	103,397	109,855	114,392	121,698	99,202

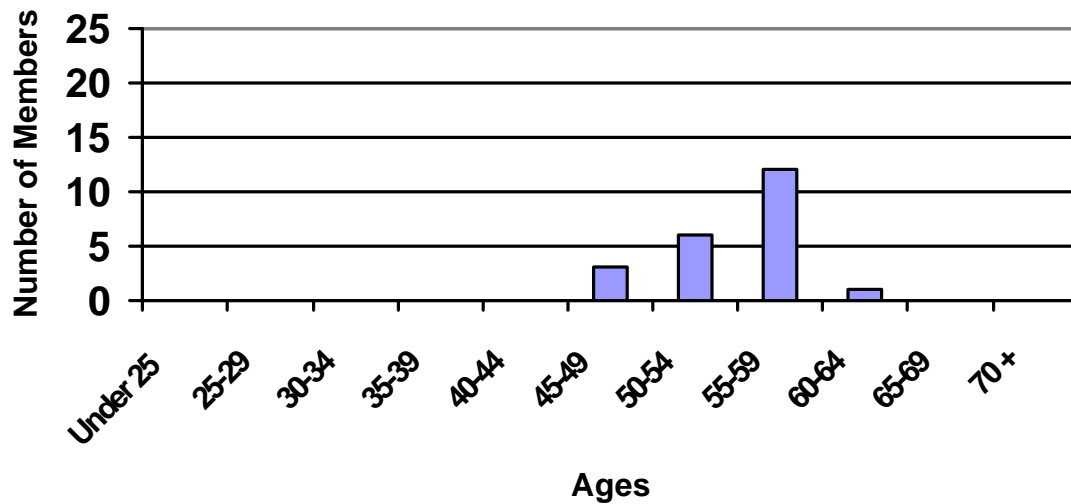
Safety Plan All Members Pay by Service



Active Probation Plan 1 Members by Age and Service as of June 30, 2004

Service >	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30+	Total
Age									
Under 25	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0
40-44	0	0	0	0	0	0	0	0	0
45-49	0	0	0	1	0	1	1	0	3
50-54	0	0	3	0	0	0	2	1	6
55-59	0	1	0	10	1	0	0	0	12
60-64	0	0	0	1	0	0	0	0	1
65-69	0	0	0	0	0	0	0	0	0
70+	0	0	0	0	0	0	0	0	0
Total	0	1	3	12	1	1	3	1	22

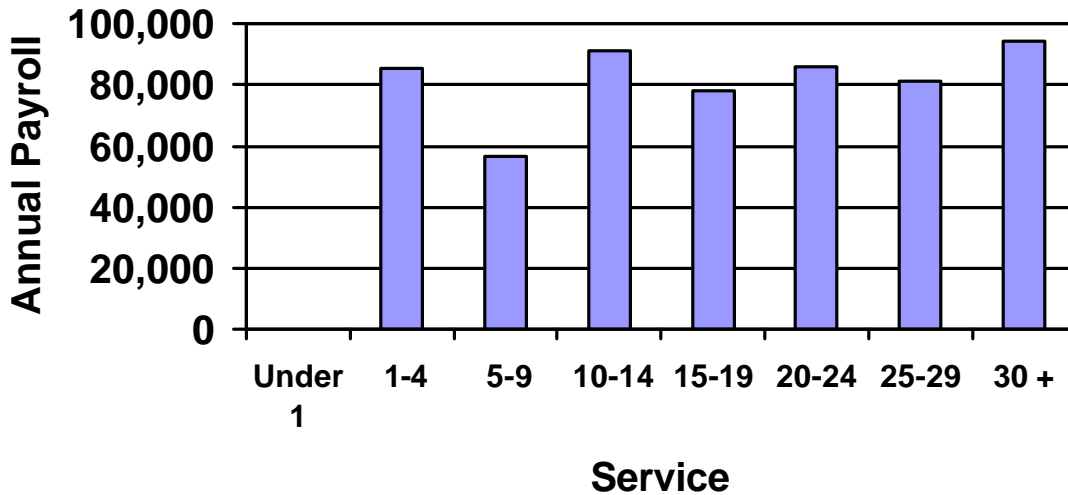
Active Probation Plan 1 Members by Age



Average Annual Full-Time Compensation for Probation Plan 1 Members by Age and Service as of June 30, 2004

<u>Service</u> >	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total
<u>Age</u>									
Under 25	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0
40-44	0	0	0	0	0	0	0	0	0
45-49	0	0	0	94,759	0	85,936	94,669	0	91,788
50-54	0	0	56,845	0	0	0	74,859	94,305	69,093
55-59	0	85,609	0	91,459	78,202	0	0	0	89,867
60-64	0	0	0	85,520	0	0	0	0	85,520
65-69	0	0	0	0	0	0	0	0	0
70 +	0	0	0	0	0	0	0	0	0
Total	0	85,609	56,845	91,239	78,202	85,936	81,462	94,305	84,266

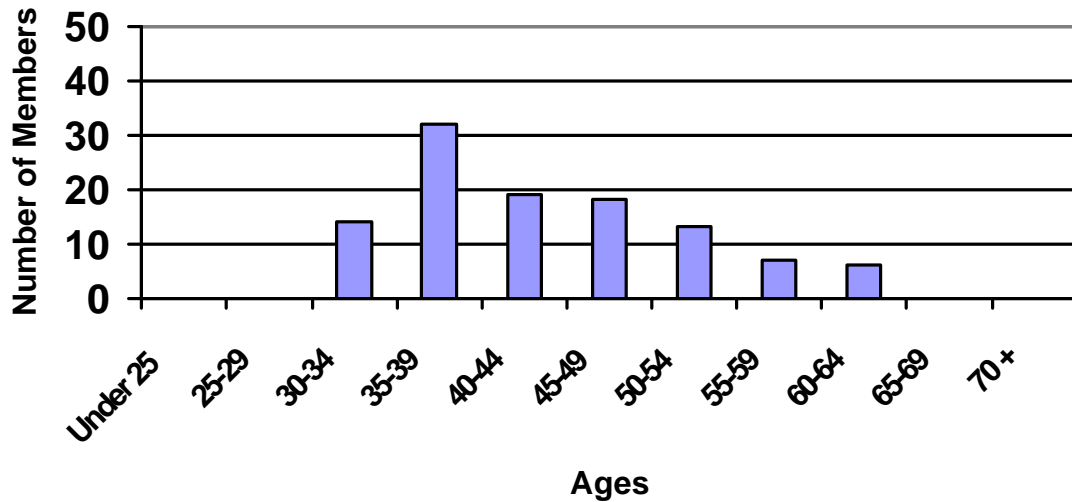
Probation Plan 1 Members Pay by Service



Active Probation Plan 2 Members by Age and Service as of June 30, 2004

Service >	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30+	Total
Age									
Under 25	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0
30-34	0	1	12	1	0	0	0	0	14
35-39	0	1	17	14	0	0	0	0	32
40-44	0	0	6	11	2	0	0	0	19
45-49	0	0	2	14	1	1	0	0	18
50-54	0	0	0	12	0	1	0	0	13
55-59	0	0	2	3	2	0	0	0	7
60-64	0	0	0	0	0	0	0	0	0
65-69	0	0	0	0	0	0	0	0	0
70+	0	0	0	0	0	0	0	0	0
Total	0	2	39	55	5	2	0	0	103

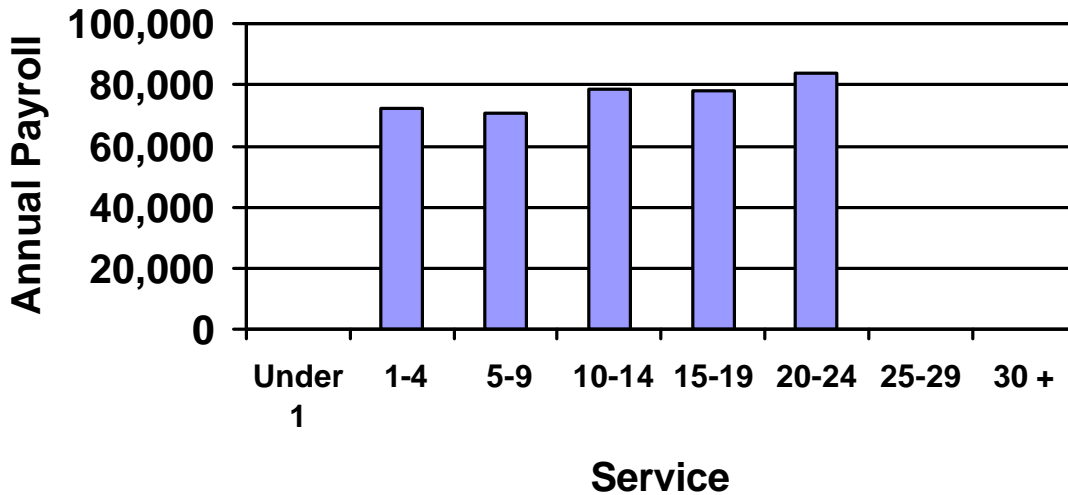
Active Probation Plan 2 Members by Age



Average Annual Full-Time Compensation for Probation Plan 2 Members by Age and Service as of June 30, 2004

Service >	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total
<u>Age</u>									
Under 25	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0
30-34	0	82,735	68,377	69,803	0	0	0	0	69,505
35-39	0	61,914	69,083	72,329	0	0	0	0	70,279
40-44	0	0	81,395	82,843	75,609	0	0	0	81,624
45-49	0	0	55,647	79,003	74,380	85,895	0	0	76,534
50-54	0	0	0	81,342	0	82,342	0	0	81,419
55-59	0	0	78,121	82,237	81,825	0	0	0	80,943
60-64	0	0	0	0	0	0	0	0	0
65-69	0	0	0	0	0	0	0	0	0
70 +	0	0	0	0	0	0	0	0	0
Total	0	72,324	70,535	78,592	77,849	84,119	0	0	75,491

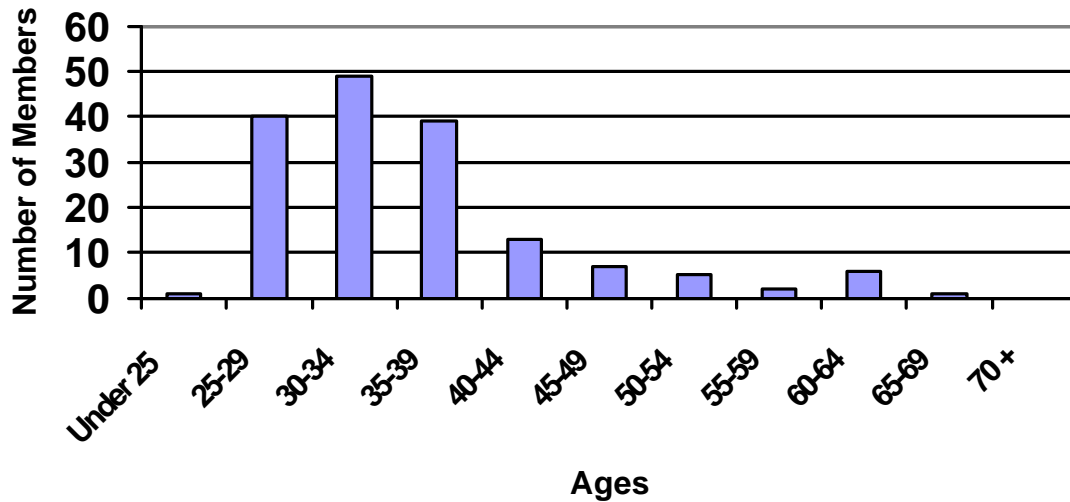
Probation Plan 2 Members Pay by Service



Active Probation Plan 4 Members by Age and Service as of June 30, 2004

Service >	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30+	Total
Age									
Under 25	1	0	0	0	0	0	0	0	1
25-29	5	29	6	0	0	0	0	0	40
30-34	0	34	15	0	0	0	0	0	49
35-39	5	21	13	0	0	0	0	0	39
40-44	1	8	4	0	0	0	0	0	13
45-49	1	5	1	0	0	0	0	0	7
50-54	0	4	1	0	0	0	0	0	5
55-59	0	2	0	0	0	0	0	0	2
60-64	0	4	2	0	0	0	0	0	6
65-69	0	0	1	0	0	0	0	0	1
70+	0	0	0	0	0	0	0	0	0
Total	13	107	43	0	0	0	0	0	163

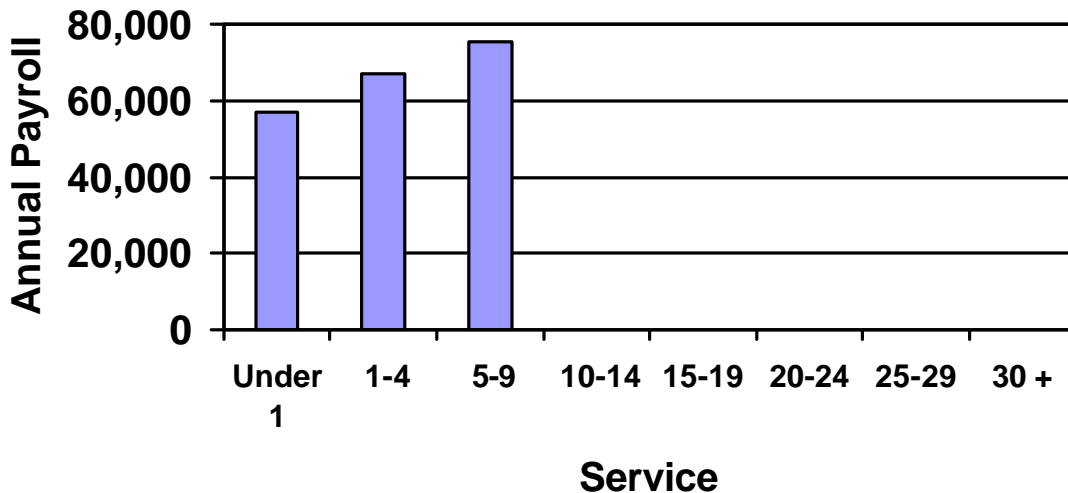
Active Probation Plan 4 Members by Age



Average Annual Full-Time Compensation for Probation Plan 4 Members by Age and Service as of June 30, 2004

Service >	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total
Age									
Under 25	56,484	0	0	0	0	0	0	0	56,484
25-29	53,915	65,528	76,826	0	0	0	0	0	65,771
30-34	0	63,391	73,307	0	0	0	0	0	66,426
35-39	61,339	64,712	74,428	0	0	0	0	0	67,518
40-44	55,639	81,852	80,814	0	0	0	0	0	79,516
45-49	53,446	72,453	79,869	0	0	0	0	0	70,797
50-54	0	68,999	78,389	0	0	0	0	0	70,877
55-59	0	103,709	0	0	0	0	0	0	103,709
60-64	0	68,586	76,320	0	0	0	0	0	71,164
65-69	0	0	77,934	0	0	0	0	0	77,934
70 +	0	0	0	0	0	0	0	0	0
Total	57,064	67,190	75,354	0	0	0	0	0	68,536

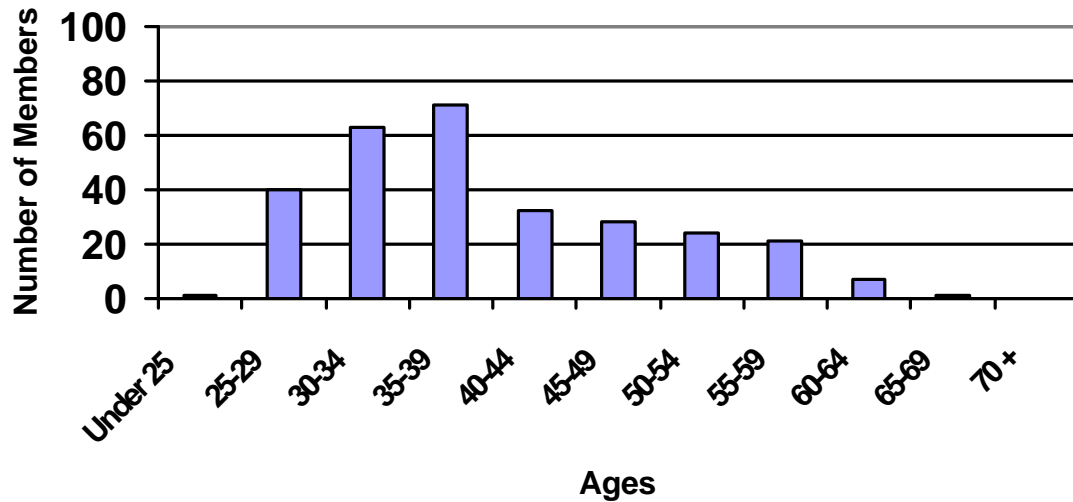
Probation Plan 4 Members Pay by Service



Active Probation Plan All Members by Age and Service as of June 30, 2004

Service >	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total
Age									
Under 25	1	0	0	0	0	0	0	0	1
25-29	5	29	6	0	0	0	0	0	40
30-34	0	35	27	1	0	0	0	0	63
35-39	5	22	30	14	0	0	0	0	71
40-44	1	8	10	11	2	0	0	0	32
45-49	1	5	3	15	1	2	1	0	28
50-54	0	4	4	12	0	1	2	1	24
55-59	0	3	2	13	3	0	0	0	21
60-64	0	4	2	1	0	0	0	0	7
65-69	0	0	1	0	0	0	0	0	1
70 +	0	0	0	0	0	0	0	0	0
Total	13	110	85	67	6	3	3	1	288

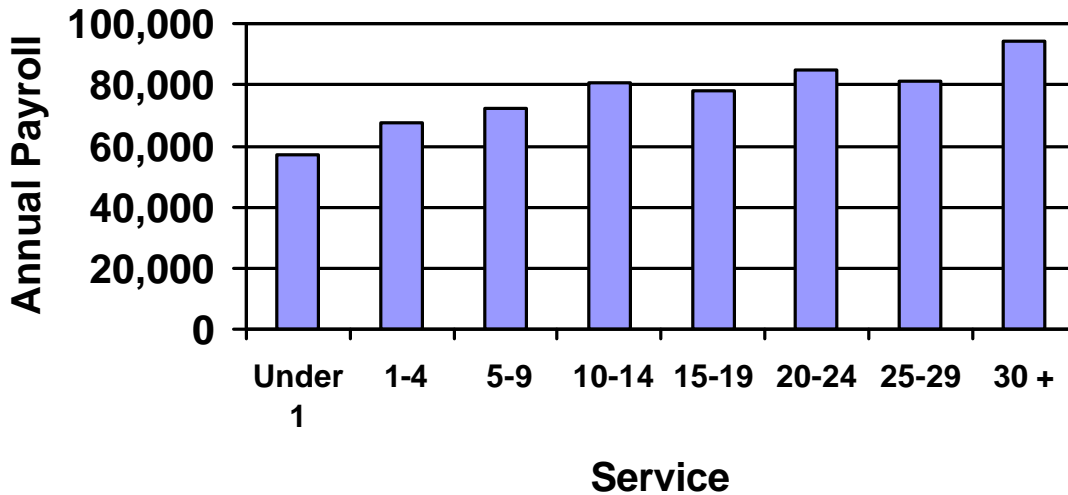
Active Probation All Members by Age



Average Annual Full-Time Compensation for Probation All Members by Age and Service as of June 30, 2004

Service >	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total
Age									
Under 25	56,484	0	0	0	0	0	0	0	56,484
25-29	53,915	65,528	76,826	0	0	0	0	0	65,771
30-34	0	63,944	71,116	69,803	0	0	0	0	67,110
35-39	61,339	64,585	71,399	72,329	0	0	0	0	68,762
40-44	55,639	81,852	81,163	82,843	75,609	0	0	0	80,768
45-49	53,446	72,453	63,721	80,053	74,380	85,916	94,669	0	76,734
50-54	0	68,999	62,231	81,342	0	82,342	74,859	94,305	76,141
55-59	0	97,676	78,121	89,331	80,617	0	0	0	88,211
60-64	0	68,586	76,320	85,520	0	0	0	0	73,215
65-69	0	0	77,934	0	0	0	0	0	77,934
70 +	0	0	0	0	0	0	0	0	0
Total	57,064	67,451	72,490	80,857	77,908	84,725	81,462	94,305	72,225

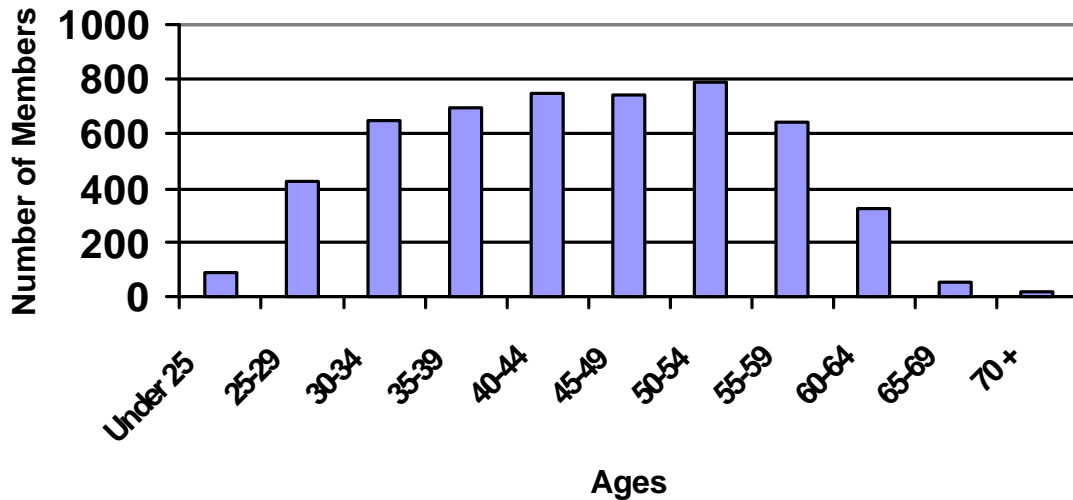
Probation Plan All Members Pay by Service



Active All Members by Age and Service as of June 30, 2004

Service >	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total
Age									
Under 25	35	55	1	0	0	0	0	0	91
25-29	100	279	45	1	0	0	0	0	425
30-34	88	364	170	28	0	0	0	0	650
35-39	66	278	212	108	30	1	0	0	695
40-44	68	220	194	143	105	22	0	0	752
45-49	73	178	141	152	110	69	17	1	741
50-54	63	156	154	174	87	73	48	33	788
55-59	52	113	82	133	80	68	55	60	643
60-64	21	46	47	48	60	33	25	46	326
65-69	5	7	13	6	8	4	4	8	55
70 +	2	2	1	5	3	3	3	1	20
Total	573	1,698	1,060	798	483	273	152	149	5,186

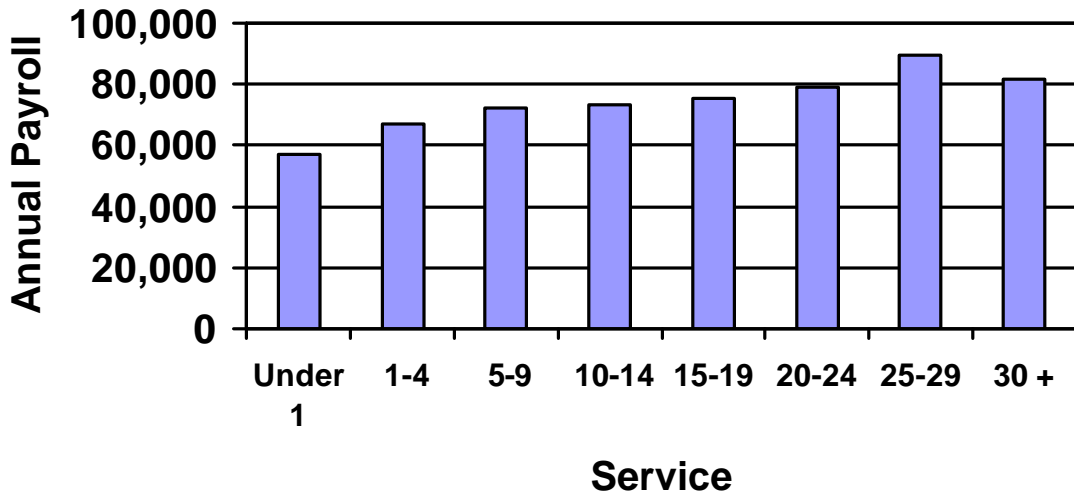
Active All Members by Age



Average Annual Full-Time Compensation for All Members by Age and Service as of June 30, 2004

Service >	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total
Age									
Under 25	44,612	51,592	46,843	0	0	0	0	0	48,855
25-29	55,139	61,781	67,466	43,734	0	0	0	0	60,777
30-34	59,414	66,428	73,794	67,614	0	0	0	0	67,456
35-39	58,911	71,604	72,571	73,568	81,119	65,604	0	0	71,401
40-44	56,466	68,783	73,062	72,628	78,706	77,851	0	0	71,155
45-49	58,035	66,751	72,323	77,641	76,872	80,923	103,942	60,246	72,853
50-54	60,305	70,046	71,868	72,851	79,776	85,578	87,531	78,698	74,183
55-59	59,600	70,947	74,467	75,296	69,559	74,170	91,850	84,406	74,590
60-64	58,166	65,587	67,039	70,161	65,024	75,192	82,173	81,826	70,424
65-69	39,620	72,400	56,904	49,062	70,759	67,140	86,169	78,922	64,540
70 +	32,258	66,687	76,363	49,010	84,310	60,269	55,493	57,452	58,862
Total	56,982	67,006	72,195	73,518	75,319	79,060	89,380	81,708	70,448

All Active Members Pay by Service



N. Actuarial Certification

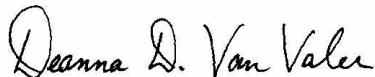
This valuation has been conducted by Public Pension Professionals in accordance with generally accepted actuarial principles and practices.

The actuarial assumptions employed in the development of the recommended contribution rates were selected to be individually reasonable (taking into account the experience of the Plan and reasonable expectations) and which, in combination, offer the actuary's best estimate of anticipated experience under the Plan. In our opinion, these methodologies and assumptions meet the parameters required under GASB Statement 25.

The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render this actuarial opinion.



Ira M. Summer, F.S.A, E.A.
Public Pension Professionals, Inc.



Deanna Van Valer, A.S.A, E.A.
Public Pension Professionals, Inc.

December 2004