SAN LUIS OBISPO COUNTY PENSION TRUST

ACTUARIAL EXPERIENCE STUDY
AS OF DECEMBER 31, 2006

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Board of Trustees
San Luis Obispo County Pension Trust
1000 Mill Street
San Luis Obispo, CA 93408

Members of the Board:

Subject: Results of 2006 Experience Study

We are pleased to present our report on the results of the 2006 Experience Study for the San Luis Obispo County Pension Trust (SLOCPT). We have reviewed each of the actuarial assumptions and compared them to actual experience over a five-year period ending December 31, 2006. This report summarizes our findings. It is our recommendation that only one change be made in the actuarial assumptions or methods used for the SLOCPT actuarial valuations, which is a change in the payroll growth assumption.

We wish to thank the SLOCPT staff for their assistance in providing data for this study.

Sincerely,

Leslie L. Thompson, FSA, FCA, MAAA, EA
Senior Consultant

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SECTION I

EXECUTIVE SUMMARY

Executive Summary

- ***Purpose***
  - To review actuarial assumptions and methods and to compare to actual recent experience
  - Used data from five-year period ending December 31, 2006

- ***Inflation rate***
  - Currently 3.75%
  - Five-year average in CPI-U is 2.69%, ten-year average is 2.44%, twenty-year average is 3.06%
  - Component of investment return assumption, salary increase assumption, and assumed payroll growth rate
  - Recommend no change in assumed inflation rate

- ***Investment return rate***
  - Currently 7.75%
  - Average market return of 7.20% for last ten years
  - Rate is net of administrative expenses
  - Therefore, assumed rate is composed of a 3.75% inflation assumption and an assumed 4.00% net real return
  - Justified by current asset allocation and expected returns by asset class
  - Slightly lower than most common rate of 8.00% for large public retirement systems
  - Recommend no change in assumed investment return rate

- ***Salary increase rate***
  - Salary increases are comprised of price inflation, overall "productivity" increases, and longevity/promotional component
  - We assume 3.75% inflation, plus 1.75% across-the-board increases Merit and Longevity Component, plus additional service-related increases during first four years of service
  - Current assumptions are conservative
  - We recommend no change to these assumptions

- ***Payroll growth rate***
  - Rate at which total SLOCPT's payroll is expected to grow
  - Current assumed payroll growth rate is 3.75%
  - Only affects funding period, not liability
  - Will be lower than expected salary increases for the average member, because members who terminate, retire, etc. are usually replaced with lower-paid members
  - Assumes no membership growth, per GASB 25
  - In last ten years, payroll grew 5.90%

- Payroll is assumed to increase more slowly than the 5.50% wage inflation assumption, due to the impact of baby boomers retiring in large numbers over the next 10-15 years
- We recommend the payroll growth assumption be increased to 4.25%

- ***Post-retirement mortality rates (non-disabled retirees and beneficiaries)***
  - Current tables: 1994 Uninsured Pensioner Mortality Table (sex distinct)
  - 57 male deaths and 94 female deaths (excludes disableds)
  - Expected 57 male deaths and 83 female deaths
  - A/E ratio (actual to expected deaths) for males is 100% and females is 113%
  - A/E ratios in study two years ago were 85% for males, 95% for females
  - Currently, we feel adequate margin exists for this assumption
  - We recommend no change to this assumption

- ***Active member mortality rates***
  - Current rates include probability of ordinary death, line-of-duty death, and death while eligible for retirement or disability
  - 7 male deaths and 5 female deaths
  - Expected 7 male deaths and 4 female deaths
  - A/E ratio for males is 100% and for females is 125%
  - We recommend no change to this assumption

- ***Disabled mortality rates***
  - 12 male deaths and 4 female deaths; expected 8 male and 2 female deaths
  - 150% A/E ratio for males, 200% for females
  - At the last study, the A/E for males was 140% and 100% for females
  - We recommend no change to this assumption

- ***Retirement rates***
  - ***Miscellaneous***
    - 399 retirements during five-year period; expected 365
    - These numbers exclude retirements of previously terminated members
    - Current tables produce an A/E ratio of 109%
    - We recommend no change to this assumption
  - ***Probation***
    - 11 retirements during five-year period: expected 10
    - These numbers exclude retirements of previously terminated members
    - Current tables produce an A/E ratio of 110%
    - We recommend no change to this assumption
  - ***Safety***
    - 30 retirements during five-year period: expected 26
    - These numbers exclude retirements of previously terminated members
    - Current tables produce an A/E ratio of 115%
    - We recommend no change to this assumption

- ***Vested Termination rates***
  - ***Miscellaneous***
    - Members who terminate with five or more years of service and elect to receive a deferred benefit instead of a refund: actual number was 245 and expected was 161
    - A/E ratio equals 152%
    - Ratios over 100% for this assumption are conservative
    - We recommend no change to this assumption
  - ***Probation***
    - Members who terminate with five or more years of service and elect to receive a deferred benefit instead of a refund: actual number was 11 and expected was 9
    - A/E ratio equal to 122%
    - Ratios over 100% for this assumption are conservative
    - We recommend no change to this assumption
  - ***Safety***
    - Members who terminate with five or more years of service and elect to receive a deferred benefit instead of a refund: actual number was 19 and expected was 18
    - A/E ratio equals 106%
    - Ratios over 100% for this assumption are conservative
    - We recommend no change to this assumption

- ***Disability***
  - ***Miscellaneous and Probation (Non-Duty)***
    - The expected number of non-duty disabilities for the five-year period was 19, the actual was 25; A/E ratio is 132%
    - Experience closely fits assumption
    - We recommend no change to this assumption
  - ***Safety (Duty)***
    - The expected number of duty disabilities for the five-year period was 16, the actual was 8; A/E ratio is 50%
    - Low counts and experience fits assumption on combined results
    - We will continue to monitor experience before recommending a change
    - We recommend no change to this assumption

- ***Refunds***
  - ***Miscellaneous***
    - Refunds with less than five years of service: expected number was 414 and actual was 417; A/E ratio is 101%
    - Refunds with five or more years of service: expected number was 47 and actual was 53; A/E ratio is 113%
    - Ratios over 100% are conservative
    - We recommend no change to this assumption

  - ***Probation***
    - Refunds with less than five years of service: expected number was 19 and actual was 15; A/E ratio is 79%
    - Refunds with five or more years of service: expected number was 3 and actual was 1; A/E ratio is 33%
    - Ratios over 100% are conservative
    - We recommend no change to this assumption due to low counts
  - ***Safety***
    - Refunds with less than five years of service: expected number was 13 and actual was 11; A/E ratio is 85%
    - Refunds with five or more years of service: expected number was 4 and actual was 5; A/E ratio is 125%
    - Ratios over 100% are conservative
    - We recommend no change to this assumption

- ***Other assumptions***
  - Percent married, decrement timing, spouse age difference, retirement age for deferred vested, amortization period, etc.
  - These assumptions are reasonable or conservative
  - We recommend no change to these assumptions

- ***Actuarial methods***
  - Entry Age Normal actuarial cost method still appropriate
  - Most widely used method among public, statewide plans
  - Actuarial asset method (five-year smoothing) still appropriate

- ***Summary of recommendations***
  - Payroll growth assumption change to 4.25%

- ***Impact of all recommended changes***
  - Decrease in amortization of Unfunded Actuarial Accrued Liability and total contribution cost to SLOCPT

SECTION II

INTRODUCTION

Introduction

In determining liabilities, contribution rates and funding periods for retirement plans, actuaries must make assumptions about the future. Among the assumptions that must be made are:

- Retirement rates
- Mortality rates
- Turnover rates
- Disability rates
- Investment return rate
- Salary increase rates
- Inflation rate

For some of these assumptions, such as the mortality rates, past experience provides important evidence about the future. For other assumptions, such as the investment return rate, the link between past and future results is much weaker. In either case, though, actuaries should review their assumptions periodically and determine whether these assumptions are consistent with actual past experience and with anticipated future experience.

In conducting experience studies, actuaries generally use data over a period of several years. This is necessary in order to gather enough data so that the results are statistically significant. In addition, if the study period is too short, the impact of the current economic conditions may lead to misleading results. It is known, for example, that the health of the general economy can impact salary increase rates and withdrawal rates. Using results gathered during a short-term boom or bust will not be representative of the long-term trends in these assumptions. Also, the adoption of legislation, such as plan improvements or changes in salary schedules, will sometimes cause a short-term distortion in the experience. For example, if an early retirement window was opened during the study period, we would usually see a short-term spike in the number of retirements followed by a dearth of retirements for the following two-to-four years. Using a longer period prevents giving too much weight to such short-term effects. On the other hand, using a much longer period would water down real changes that may be occurring, such as mortality improvement or a change in the ages at which members retire. In our view, using a six-year period is reasonable.

In an experience study, we first determine the number of deaths, retirements, etc. that occurred during the period. Then we determine the number expected to occur, based on the current actuarial assumptions. The number “expected” is determined from using the probability of the occurrence at the given age, times the “exposures” at that same age. For example, let’s look at a rate of retirement of 50% at age 55. The number of exposures can only be those members who are age 55 and eligible for retirement at that time. Thus they are considered “exposed” to that assumption. Finally we calculate the A/E ratio, where "A" is the actual number (of retirements, for example) and "E" is the expected number. If the current assumptions were "perfect", the A/E ratio would be 100%. For some assumptions (e.g. termination), an A/E ratio greater than 100% is conservative (i.e. generates actuarial gains for the System) while for other assumptions (e.g. retirement) an A/E ratio less than

100% is conservative. When the A/E ratio varies much from 100%, it is a sign that new assumptions may be needed. Of course we not only look at the assumptions as a whole, but we also review how well they fit the actual results by sex, by age, and by service.

Finally, the actuary "graduates" or smoothes the results since the raw results can be quite uneven from age to age or from service year to service year.

ORGANIZATION OF REPORT

Section III contains our findings and recommendations for each actuarial assumption. The impact of adopting our recommendations on liabilities and contribution rates is shown in Section IV. Section V summarizes the recommended changes. Section VI presents a summary of all the actuarial assumptions and methods, including the recommended changes.

SECTION III

ANALYSIS OF EXPERIENCE AND RECOMMENDATIONS

Analysis of Experience and Recommendations

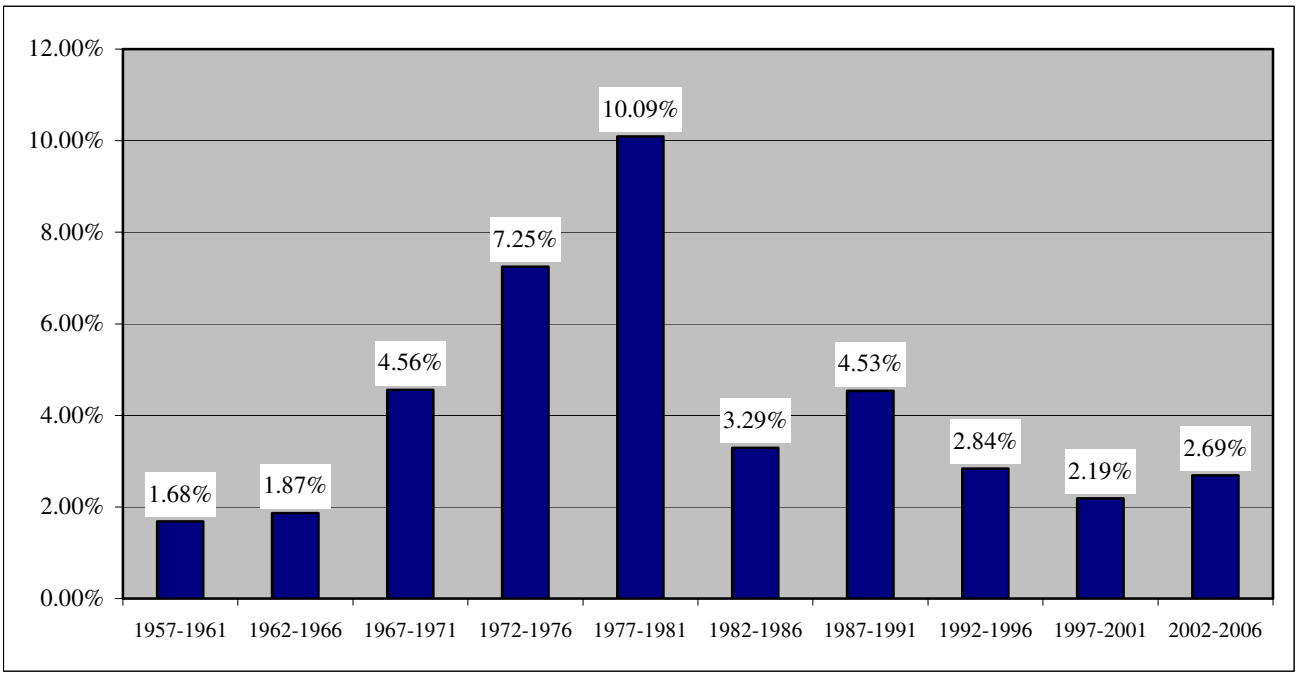
We will begin by discussing the economic assumptions: inflation, the investment return rate, the salary increase assumption, and the payroll growth rate. Then we will discuss the demographic assumptions: mortality, disability, termination and retirement. Finally we will discuss the actuarial methods used.

INFLATION RATE

By "inflation," we mean price inflation, as measured by annual increases in the Consumer Price Index (CPI). This inflation assumption underlies all of the other economic assumptions we employ. It impacts investment return, salary increases, and retiree benefit increases. Our current annual inflation assumption is 3.75%.

Over the five-year period from January 1, 2002 through December 31, 2006, the CPI-U has increased at an average rate of 2.69%. However, the assumed inflation rate is only weakly tied to past results, and this has been a period of relatively low inflation.

The chart below shows the average annual inflation in each of the ten consecutive five-year periods ending December 31 over the last fifty years:



The table below shows the average inflation over various periods, ending December 2006:

Periods Ending December 2006	Average Annual Increase in CPI-U
Last five (5) years	2.69%
Last ten (10) years	2.44%
Last fifteen (15) years	2.57%
Last twenty (20) years	3.06%
Last thirty (30) years	4.27%
Since 1913 (first avaliable year)	3.41%

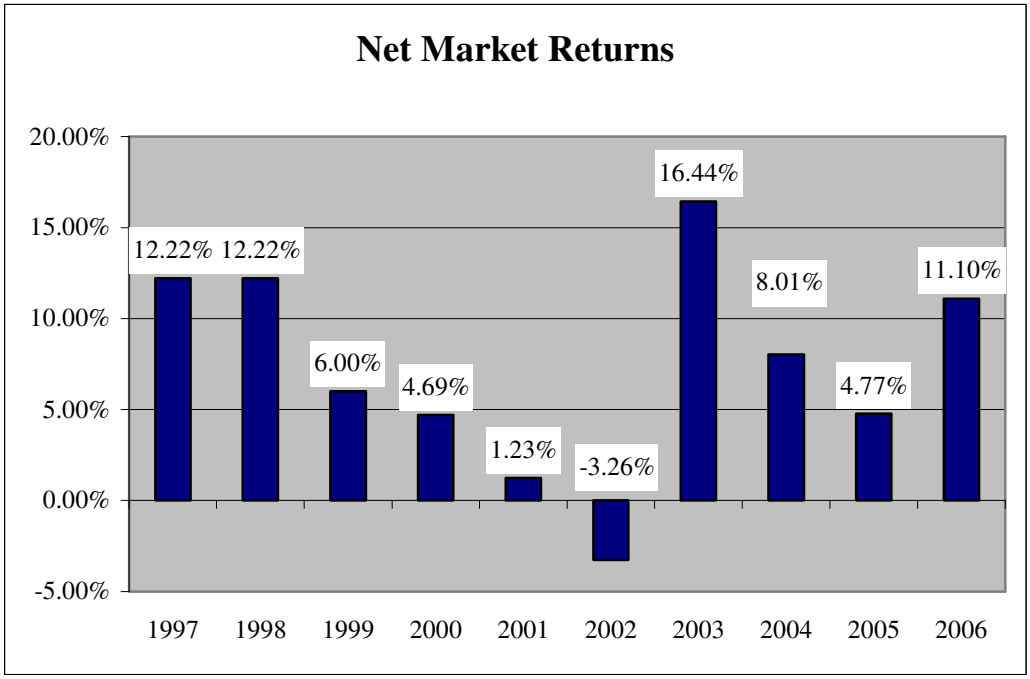
Source: Bureau of Labor Statistics, CPI-U, all items, not seasonally adjusted

As you can see, while inflation has been relatively low over the last twenty years, if we look back over a period of 30 or more years, inflation has averaged above 3.75% per year.

We believe that inflation over the next few years may continue to be less than 3.75% annually; hence we believe it is appropriate to assume a 3.75% rate of inflation over the long term. Over 50% of large public pension funds have an inflation assumption between 3.00% and 3.50%. Therefore, we are recommending retaining the annual 3.75% inflation assumption.

INVESTMENT RETURN RATE

Currently, San Luis Obispo County Pension Trust assumes an investment return rate of 7.75%, net of administrative expenses. This is the rate used in discounting future payments and in calculating the actuarial present value of those payments. The current assumption assumes inflation of 3.75% per annum and an annual real rate of return of 4.00%, net of expenses. The following chart shows the year-by-year returns, net of administrative expenses, for the last ten fiscal years.



For the last ten years, the average market return net of administrative expenses has been 7.20%. However, for this assumption, past performance, even averaged over a ten-year period, is not a reliable indicator of future performance.

The actual asset allocation of the trust fund will significantly impact the overall performance, so returns achieved under a different allocation are not meaningful. More importantly, the real rates of return for many asset classes, especially equities, vary so dramatically from year to year that even a ten-year period is not long enough to provide reasonable guidance.

You should note that 8.00% continues to be the median investment return assumption used by large public pension plans, per the Public Funds survey.

We believe it is also important for the Pension Trust to bear in mind the risk involved. You can see from the chart of annual returns shown earlier how wildly the year-by-year returns can swing. Only in seven of the ten years was the return within 5.00 percentage points (500 basis points) of the 7.75% assumption.

SALARY INCREASE RATES

The current salary increase rates assumed for the valuation vary by service. They range from 9.50% for new members to 5.50% for members with five or more years of service.

A change to the salary increase assumption was recommended in the prior experience study and effective with the January 1, 2007 valuation. The rates were increased for the merit and longevity component and total base annual rate.

Recent experience has found this recommendation to be a better fit with actual data, as the actual increases have been higher than assumed. As budget pressures increase, the ability to pay salary increases will diminish, keeping the current assumption appropriate.

Therefore, we are recommending making no changes to the current salary increase assumptions. We believe that using a minimum 5.50% salary increase for all members – call this wage inflation – is conservative, compared to other systems.

PAYROLL GROWTH RATE

The salary increase rates discussed above are assumptions applied to individuals. They are used in projecting future benefits. We also use a separate payroll growth assumption, currently 3.75%, in determining the charge needed to amortize the unfunded actuarial accrued liability. The amortization payments are calculated to be a level percentage of payroll, so as payroll increases over time, these charges do too. The amortization percentage is dependent on the rate at which payroll is assumed to increase.

Over the last ten years, payroll growth has averaged 5.90%.

Payroll can grow at a rate different from the average pay increase for individual members. There are two reasons for this. First, when older, longer-service members terminate, retire or die, they are generally replaced with new members who have a lower salary. Because of this, in most populations that are not growing in size, the growth in total payroll will be smaller than the average pay increase for members. Second, payroll can grow due to an increase in the size of the group. However, GASB 25 prohibits systems from using anticipated membership growth in setting the payroll growth assumption.

Theoretically, over the long term the total payroll for a population of constant size should grow at about the rate that starting pays increase. These will generally rise with inflation, plus some adjustment for the excess of wage inflation over price inflation, plus an industry-specific adjustment. However, because of the baby boomer retirements expected over the next 10-15 years, we expect actual payroll growth to lag behind the wage inflation assumption. In order to be consistent with Milliman's actuarial audit, we are recommending an increase to 4.25% for the payroll growth assumption. This has no impact on the liabilities of the Pension Trust, but it does impact the amortization period, since we assume there will be more future contributions (4.25% more per year) that can be used to amortize the unfunded actuarial accrued liability.

POST-RETIREMENT MORTALITY RATES

The mortality table currently being used for non-disabled retirees and beneficiaries receiving benefits is the 1994 Uninsured Pensioners Mortality Table. The table has separate rates for males and females.

There were 57 deaths among the male retirees and 94 deaths among female retirees during the last five years. (These figures exclude deaths among disabled retirees.) Based on the current tables, we expected 57 and 83 deaths respectively. This produced A/E ratios of 100% for males and 113% for females. This is a good match, and we expect to see continuing mortality improvement (longer life expectancies) in the future. These ratios are still within an acceptable range - generally 105% to 115%. Thus we recommend no changes to the post-retirement assumption for mortality. The results of this analysis are shown below:

Post-Retirement Mortality (non-disabled) – Males			
Age	Actual deaths	Expected deaths	A/E ratio
50-54	0	0	N/A
55-59	2	2	100%
60-64	5	4	125%
65-69	2	6	33%
70-74	12	9	133%
75-79	9	12	75%
80-84	13	11	118%
85-89	10	10	100%
90-94	4	3	133%
Totals	57	57	100%

Post-Retirement Mortality (non-disabled) – Females			
Age	Actual deaths	Expected deaths	A/E ratio
50-54	1	0	N/A
55-59	2	1	200%
60-64	1	3	33%
65-69	8	6	133%
70-74	9	8	113%
75-79	14	14	100%
80-84	26	18	144%
85-89	13	15	87%
90-94	20	18	111%
Totals	94	83	113%

DISABLED MORTALITY RATES

This is a minor assumption, and it has little impact on the liabilities. There were 12 male deaths and 4 female deaths among the disabled retirees during the five-year study period. This produced A/E ratios of 150% and 200% respectively. At the time of the last experience study, the A/E ratios were 140% for males, 100% for females and 133% overall. Due to the small sample size as well as the reasonable A/E ratios, we recommend no change to this assumption. The results of this analysis are shown below:

Disability Mortality – Males			
Age	Actual deaths	Expected deaths	A/E ratio
50-54	1	0	N/A
55-59	2	1	200%
60-64	4	1	400%
65-69	1	1	100%
70-74	0	1	0%
75-79	1	1	100%
80-84	0	1	0%
85-89	2	2	100%
90 and over	1	0	N/A
Totals	12	8	150%

Disability Mortality – Females			
Age	Actual deaths	Expected deaths	A/E ratio
45-49	1	0	N/A
50-54	1	0	N/A
55-59	1	1	100%
60-64	0	0	N/A
65-69	0	0	N/A
70-74	0	0	N/A
75-79	1	0	N/A
80-84	0	1	0%
85-89	0	0	N/A
90 and over	0	0	N/A
Totals	4	2	200%

ACTIVE MORTALITY RATES

A separate mortality table is used for active members. The results of this analysis are shown below:

Active mortality rates	Males	Females	Total
Number of actual deaths	7	5	12
Number of expected deaths	7	4	11
A/E ratio	100%	125%	109%

Due to the low counts and released liabilities involved in this assumption, we recommend no change to this assumption.

DISABILITY RATES

Disability is also a minor assumption. The A/E ratio on a combined basis for Miscellaneous and Probation members was 132% and 50% for Safety members. Due to the small number of disabled lives, we recommend no change to this assumption. The results of this analysis are shown below:

Active disability rates	Miscellaneous	Probation	Safety
Number of actual disabilities	24	1	8
Number of expected disabilities	19	0	16
A/E ratio	126%	N/A	50%

RETIREMENT RATES

We currently use retirement rates that vary by age. There were 399 retirements during the five-year period for Miscellaneous members, 11 retirements for Probation members, and 30 retirements for Safety members. This includes only members who retired from active status. It excludes those who were inactive for over a year before retiring.

The analysis shows A/E ratios of 109% for Miscellaneous members, 110% for Probation members, and 115% for Safety members. In the last study, the A/E was 168% for Miscellaneous, 120% for Probation, and 73% for Safety. The results of this analysis are shown below:

Retirement									
	Miscellaneous			Probation			Safety		
Age	Actual	Expected	A/E ratio	Actual	Expected	A/E ratio	Actual	Expected	A/E ratio
Under 50	3	0	N/A	0	0	N/A	0	0	N/A
50	18	24	75%	0	1	0%	0	2	0%
51	18	11	164%	0	1	0%	2	2	100%
52	13	11	118%	0	1	0%	0	2	0%
53	14	11	127%	0	1	0%	1	2	50%
54	18	14	129%	0	1	0%	4	2	200%
55	23	21	110%	2	1	200%	5	2	250%
56	20	20	100%	3	1	300%	0	1	0%
57	29	25	116%	0	1	0%	2	1	200%
58	28	22	127%	5	1	500%	5	1	500%
59	27	19	142%	0	0	N/A	3	1	300%
60	39	20	195%	0	0	N/A	1	2	50%
61	17	15	113%	0	0	N/A	2	2	100%
62	45	39	115%	0	1	0%	3	2	150%
63	18	12	150%	1	0	N/A	1	1	100%
64	12	11	109%	0	0	N/A	0	1	0%
65	23	24	96%	0	0	N/A	0	1	0%
66	14	9	156%	0	0	N/A	1	1	100%
67	8	5	160%	0	0	N/A	0	0	N/A
68	3	2	150%	0	0	N/A	0	0	N/A
69	2	2	100%	0	0	N/A	0	0	N/A
70	2	4	50%	0	0	N/A	0	0	N/A
Over 70	5	44	11%	0	0	N/A	0	0	N/A
Total	399	365	109%	11	10	110%	30	26	115%

Per the prior experience study, we recommended an increase in the assumed rates of retirement for the Miscellaneous groups. We have continued to monitor this assumption for all members and have determined this assumption to be reasonable, hence we recommend no change.

We believe there is a reasonably good match between experience and our assumptions, and we recommend leaving the current assumptions unchanged.

TERMINATION RATES

Termination rates reflect members who leave for any reason other than death, disability or service retirement. They apply whether the termination is voluntary or involuntary, and whether the member takes a refund or keeps his/her account balance on deposit in the Pension Trust. The current termination rates reflect the member's age and service, and we want to continue this practice.

The prior experience study recommended the following changes to the withdrawal rates:

- Refunds for withdrawals with service less than five years:
    - Miscellaneous and Probation members increase withdrawal rates
    - Decrease withdrawal rates for the Safety group
- Refunds for withdrawals with five or more years of service:
    - Decrease withdrawal rates, especially at ages 40-49 for Miscellaneous and Probation members
    - For the Safety group, recommended adding withdrawal rates that reflect experience
- Vested Terminations
    - Increase withdrawal rates for Miscellaneous and Probation members
    - No change in withdrawal rates for the Safety group

In the aggregate, the current assumptions produce an A/E ratio for Miscellaneous members of 115%, for Probation members of 90%, and for Safety members of 103%. For this assumption, A/E ratios over 100% are conservative. This is a reasonably good match, and we do not recommend making a change at this time for any of the withdrawal rate assumptions. The results are shown below:

Refunds with Less Than 5 Years of Service – Males and Females									
	Miscellaneous			Probation			Safety		
Age	Actual	Expected	A/E ratio	Actual	Expected	A/E ratio	Actual	Expected	A/E ratio
20-24	14	17	82%	1	1	100%	2	2	100%
25-29	55	64	86%	5	7	71%	2	5	40%
30-34	67	61	110%	4	5	80%	2	3	67%
35-39	48	58	83%	1	2	50%	2	2	100%
40-44	61	55	111%	3	2	150%	1	1	100%
45-49	65	55	118%	0	0	N/A	1	0	N/A
50-54	53	49	108%	0	1	0%	0	0	N/A
55-59	34	37	92%	0	1	0%	1	0	N/A
60 and over	20	18	111%	1	0	N/A	0	0	N/A
Totals	417	414	101%	15	19	79%	11	13	85%

Refunds with 5 or More Years of Service – Males and Females									
	Miscellaneous			Probation			Safety		
Age	Actual	Expected	A/E ratio	Actual	Expected	A/E ratio	Actual	Expected	A/E ratio
Under 20	0	0	N/A	0	0	N/A	0	0	N/A
20-24	0	0	N/A	0	0	N/A	0	0	N/A
25-29	2	3	67%	0	0	N/A	0	0	N/A
30-34	8	8	100%	0	1	0%	2	1	200%
35-39	7	11	64%	1	1	100%	1	1	100%
40-44	13	13	100%	0	1	0%	0	2	0%
45-49	7	9	78%	0	0	N/A	2	0	N/A
50-54	10	1	1000%	0	0	N/A	0	0	N/A
55-59	5	1	500%	0	0	N/A	0	0	N/A
60 and over	1	1	100%	0	0	N/A	0	0	N/A
Totals	53	47	113%	1	3	33%	5	4	125%

Vested Terminations – Males and Females									
	Miscellaneous			Probation			Safety		
Age	Actual	Expected	A/E ratio	Actual	Expected	A/E ratio	Actual	Expected	A/E ratio
Under 20	0	0	N/A	0	0	N/A	0	0	N/A
20-24	1	0	N/A	0	0	N/A	0	0	N/A
25-29	9	1	900%	1	0	N/A	1	1	100%
30-34	20	7	286%	2	1	200%	8	3	267%
35-39	32	22	145%	0	2	0%	4	5	80%
40-44	45	40	113%	2	3	67%	2	5	40%
45-49	73	50	146%	3	2	150%	4	4	100%
50-54	43	41	105%	2	1	200%	0	0	N/A
55-59	19	0	N/A	1	0	N/A	0	0	N/A
60 and over	3	0	N/A	0	0	N/A	0	0	N/A
Totals	245	161	152%	11	9	122%	19	18	106%

OTHER ASSUMPTIONS AND REFUNDS

There are other assumptions made in the course of a valuation, such as the percentage of members who are married, the age difference between husbands and wives, the likelihood that a terminating employee will take a refund, the retirement age for vested terminations, decrement timing, amortization period, etc. We reviewed these, and believe these are generally realistic or conservative, so we decided to recommend no changes to these other assumptions.

ACTUARIAL METHODS

We have reviewed the actuarial cost method being used—the Entry Age Normal cost method—and we continue to believe that this is the method of choice for this plan, since this method usually does the best job of keeping costs level as a percentage of payroll. We also believe the method used to determine the funding value of assets is appropriate, since it phases in the recognition of asset gains and losses over a five-year period, and reduces fluctuations in the funding period. Therefore, we recommend no change to these methods.

SECTION IV

ACTUARIAL IMPACT OF RECOMMENDATIONS

Actuarial Impact of Recommendations

The estimated impact to the change in the payroll assumption from 3.75% to 4.25% is a decrease in the contribution rate (expressed as percent of active payroll).

	Miscellaneous		Probation	
County Contributions	**New**	**Old**	**New**	**Old**
Total normal costs	14.31%	14.31%	8.74%	8.74%
Amortization	6.77%	7.15%	7.06%	7.45%
Total Cost	21.08%	21.46%	15.80%	16.19%
Unfunded Liability (000's)	151,226	151,226	7,766	7,766

	Safety		Total Plan	
County Contributions	**New**	**Old**	**New**	**Old**
Total normal costs	16.67%	16.67%	14.29%	14.29%
Amortization	9.92%	10.48%	7.22%	7.62%
Total Cost	26.59%	27.15%	21.51%	21.91%
Unfunded Liability (000's)	37,108	37,108	196,100	196,100

SECTION V

SUMMARY OF RECOMMENDATIONS

Summary of Recommendations

We recommend making a change to the payroll growth assumption from 3.75% to 4.25%. For all other actuarial assumptions and actuarial methods, we recommend no change.

We recommend that the Board formally accept this report and readopt the current assumptions for the December 31, 2007 actuarial valuation.

SECTION VI

SUMMARY OF ASSUMPTIONS AND METHODS INCORPORATING THE RECOMMENDED ASSUMPTIONS

Summary of Assumptions and Methods Incorporating the Recommended Assumptions

I. Valuation Date

The valuation date is December 31st of each plan year. This is the date as of which the actuarial present value of future benefits and the actuarial value of assets are determined.

II. Actuarial Cost Method

Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using an individual entry age actuarial cost method having the following characteristics:

(i) the annual normal costs for each active member, payable from the date of entry into the system to the date of retirement, are sufficient to accumulate the value of the member's benefit at the time of retirement;
(ii) each annual normal cost is a constant percentage of the member's year-by-year projected covered pay.

Deferred and Reciprocal Member Actuarial Accrued Liability. Data provided includes date of birth, service credit, reciprocal status, and hourly pay rates at termination. The estimated benefit was used to compute the liabilities for reserve members. For reciprocal members, the estimated benefits were projected with 4.0% inflation to compute those liabilities.

Amortization of Unfunded Actuarial Accrued Liabilities is done as a level percent of payroll over 27 years as of the January 1, 2007 actuarial valuation for funding computations.

III. Actuarial Value of Assets

The funding value of assets is based on the market value of assets with a five-year phase-in of actual investment return in excess of (less than) expected investment income. Expected investment income is determined using the assumed investment return rate and the market value of assets (adjusted for receipts and disbursements during the year). Returns are measured net of all administrative expenses.

IV. Actuarial Assumptions

A. Economic Assumptions

1. Investment return: 7.75%, compounded annually, net of administrative expenses. This is made up of a 3.75% inflation rate and a 4.00% real rate of return.

2. Salary increase rate: Inflation rate of 3.75% plus merit and longevity increase rate of 1.75% plus an additional service-related merit component as shown below:

Years of Service at Valuation Date	Annual Merit/Longevity Component Rates of Increase
0	4.00%
1	3.50%
2	2.50%
3	1.50%
4	1.00%

3. Cost-of-living increases:

   Assumed to increase the full 3% each year

4. Payroll growth:

   4.25% per year

5. Contribution accumulation: Member contribution rates are recalculated on an actuarial basis at each actuarial study. Contributions are credited with 7.75% interest, compounded biweekly.

B. Demographic Assumptions

1. Mortality after termination or retirement -

   a. Healthy males - 1994 Uninsured Pensioner Mortality Table
   b. Healthy females - 1994 Uninsured Pensioner Mortality Table

   See sample rates below:

Ages	% Dying Within Next Year Retirees	
	Men	**Women**
45	0.17%	0.10%
50	0.28%	0.15%
55	0.48%	0.25%
60	0.86%	0.48%
65	1.56%	0.93%
70	2.55%	1.48%
75	4.00%	2.44%
80	6.67%	4.24%
85	10.46%	7.28%

2. Mortality rates of active members - As shown below for sample ages:

Ages	% of Active Members Dying Within Next Year	
	Men	Women
30	0.07%	0.03%
35	0.09%	0.04%
40	0.09%	0.05%
45	0.12%	0.08%
50	0.17%	0.10%
55	0.28%	0.15%
60	0.48%	0.25%
65	0.86%	0.48%
70	1.56%	0.93%

3. Disability mortality after termination or retirement- 1994 Uninsured Pensioner Mortality Tables set forward five years for males and females, as shown below for selected ages:

Ages	% of Disabled Members Dying Within Next Year	
	Men	Women
30	0.07%	0.03%
35	0.09%	0.04%
40	0.09%	0.05%
45	0.12%	0.08%
50	0.17%	0.10%
55	0.28%	0.15%
60	0.48%	0.25%
65	0.86%	0.48%
70	1.56%	0.93%

4. Retirement - As shown below for selected ages (rates are only applied to members eligible for retirement):

Age	Percent of Eligible Active Members Retiring Within Next Year		
	Miscellaneous	**Probation**	**Safety**
50	6.0%	7.0%	7.0%
51	3.0%	7.0%	7.0%
52	3.0%	7.5%	7.5%
53	3.0%	7.5%	7.5%
54	4.0%	7.5%	7.5%
55	6.0%	7.0%	7.5%
56	6.0%	5.0%	7.5%
57	8.0%	5.0%	7.5%
58	8.0%	5.0%	9.0%
59	8.0%	5.0%	12.5%
60	10.0%	7.0%	22.5%
61	10.0%	7.0%	30.0%
62	30.0%	20.0%	40.0%
63	15.0%	20.0%	50.0%
64	15.0%	20.0%	75.0%
65	40.0%	35.0%	100.0%
66	30.0%	20.0%	
67	30.0%	20.0%	
68	35.0%	40.0%	
69	40.0%	50.0%	
70	100.0%	100.0%	

Current deferred vested members are assumed to retire at the later of age 60 or attained age.

5. Rates of separation from active membership (for causes other than death or retirement) - As shown below for selected ages:

Sample Ages	% of Active Members Separating Within Next Year Miscellaneous and Probation Members Disability	Withdrawal < 5 years	Withdrawal >= 5 years	Vested Termination
20	0.00%	16.50%	8.50%	0.00%
25	0.00%	14.50%	7.75%	2.50%
30	0.01%	12.50%	3.75%	3.00%
35	0.04%	10.50%	2.00%	3.75%
40	0.07%	9.50%	1.25%	4.50%
45	0.11%	8.50%	0.50%	3.50%
50	0.20%	8.50%	0.00%	2.50%
55	0.38%	8.50%	0.00%	0.00%
60	0.62%	8.50%	0.00%	0.00%

Sample Ages	% of Active Members Separating Within Next Year Safety Members Disability	Withdrawal < 5 years	Withdrawal >= 5 years	Vested Termination
20	0.00%	8.50%	1.50%	4.00%
25	0.03%	8.00%	1.50%	3.00%
30	0.15%	7.50%	1.00%	2.50%
35	0.29%	5.30%	0.50%	2.00%
40	0.55%	4.30%	0.50%	1.50%
45	1.48%	3.50%	0.00%	1.50%
50	2.25%	2.00%	0.00%	0.00%
55	3.10%	0.00%	0.00%	0.00%
60	3.50%	0.00%	0.00%	0.00%

Rates are not applied after the member is eligible for reduced or unreduced retirement benefits.

100% of the Safety disabilities and 0% of the Miscellaneous and Probation disabilities are duty-related.

C. Other Assumptions

Member refunds. All or part of the employee contribution rate is subject to potential "Pick Up" by the employer. Our understanding is that "Pick Ups", and related interest, are subject to refund.

Survivor Benefits. Marital status and spouses' census data were imputed with respect to active and deferred members.

Marital Status -	70% of men and 50% of women were assumed married at retirement.
Spouse Census -	Women were assumed to be 3 years younger than men for active employees.

Cost of Living Increases. Assumed to increase the full 3% each year.

Disability Benefits. Benefits are not assumed to be offset by Social Security benefits.

Line-of-Duty Death. Social Security offset equal to 27.5% of Final Compensation.

IRC Section 415 Limits. We are assuming that IRC Section 415 limits, although applicable to this plan, will not impact any individual benefits.