CITY OF LOS ANGELES

FIRE & POLICE PENSION PLAN

The Report of an
EXPERIENCE INVESTIGATION

Covering the Period
July 1, 2001 to June 30, 2004

[On September 23, 2004, the Board of Fire and Police Pension Commissioners adopted the Non-economic assumptions and Methodology recommendations presented in this report; and to retain the Economic assumptions unchanged from the previous Experience Study.]

City of Los Angeles Fire & Police Pension Plan
Report of the Experience Investigation
Covering the Period July 1, 2001 to June 30, 2004

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INTRODUCTION

September 14, 2004

Department of Fire and Police Pensions
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Members of the Board and staff:

Submitted in this report are the results of the Experience Investigation of the City of Los Angeles Fire & Police Pension Plans. The investigation was made for the purpose of analyzing financial risk areas related to mortality, withdrawal, disability, retirement, and economic factors. We also analyzed existing actuarial methodology. Our recommendations are included in the report.

The investigation was based upon the statistical data furnished for the annual actuarial valuations and covered the period from July 1, 2001 through June 30, 2004.

Respectfully Submitted,

Rick Roeder

Rick A. Roeder, EA, FSA, MAAA

COMMENTS & SUMMARY

Experience Period. The investigation covers the time from July 1, 2001 through June 30, 2004. To the best of our knowledge, there was one extraordinary event (the advent of Tier 5, and DROP) that would mitigate against the credibility of the results generated by demographic data. Changing economic times and collective bargaining always add uniqueness to each period of study. Basing assumptions solely on past experience is not recommended. Assumptions need to meld history with the dynamic nature of the workplace. Also, we have proposed certain methodology changes (page 42) which will increase contribution levels, other factors equal.

Census Data. The data used for our study was the same data employed for our annual valuations. The Pension office also supplied additional termination and other data. We feel comfortable that any inconsistencies were "cleared up". Again, the introduction of both Tier 5 and DROP, as well as the use of varying assumptions for varying tiers made analysis of the data slightly more challenging.

In the future, it has been agreed upon that all Tiers will be valued using the same assumptions. We will continue to differentiate between Fire and Police. However, since almost 85% (and growing) of current active participants are in Tier 5, using different assumptions for different Tiers would add minimal value to the process. Thus, current Tier 5 assumptions will be used for all Tiers.

Withdrawals.
Fire: The actual number of withdrawals was twice the expected number, but this is due primarily to the inclusion of trainees in the valuation process. We recommend leaving the withdrawal rates unchanged for those with 5 or more years of service, but introducing a withdrawal rate of 5.5% per year for Firefighters with less than 5 years.

Police: The actual number of withdrawals was almost 15% more than expected. The great majority of the difference was for longer service police officers. We recommend leaving the withdrawal rates unchanged for those with less than 5 years of service, but raising withdrawal rates by 20% for those with 5 or more years of service. Even at the higher rates, the average rate of assumed withdrawal is less than 2% per year.

Duty Disability Retirements.
Fire: Duty disabilities are only 40% of the expected rate of disability. Although we do not know the cause of this reduced disability rate (our data understates disabilities because of the lag time between disability application and the decision to grant the disability), we recommend reducing the assumed rates by one-third.

Police: Duty disabilities are only a third of the expected rate of disability. Although we cannot recommend such a drastic cut in the assumed rate because of the possible lead time issue, we do recommend a reduction to two-thirds of the current rate.

Non-Duty Disability Retirements.
Fire & Police: For both groups, actual disabilities were less than assumed, but the assumed rate is so low that any change would not have an impact. Therefore, we recommend no change at this time.

Service Retirements.
Fire: Retirements were far less than expected. We recommend the current Tier 5 rate be reduced by 50% and eliminated under age 50 (this is consistent with the minimal number of Tier 2 & 4 members).

Police: Again, retirements were far less than expected at ages under 60. We recommend for all Police from ages 50 to 60 the Tier 5 assumption reduced by 50% and we recommend 75% of the Tier 4 assumption under age 50. At ages 60 and over, we recommend no change.

Under the recently established Tier 5, there is a significantly greater pension incentive to work longer since the maximum pension cap has been increased to 90% and that there is an additional benefit percentage for each year of service up to 33 years. This is a classic case of a change in benefit design resulting in different anticipated behavior.

Active Life Mortality – Non-Duty.
Fire & Police: Overall experience was close to expected. We recommend no change at this time.

Active Life Mortality – Duty.
Fire & Police: Experience here was extremely favorable (less than 20% of expected), but again the small exposure period requires us to be conservative. We recommend that these rates be cut by 50% at this time.

Mortality – Service Retirees.
Fire & Police: Retirees are living longer than expected. Deaths were one-third less than expected. Some of this may be do to the changing sexual mix of retirees. We recommend that we continue to use the 1994 Group Annuity Mortality Table, but we further recommend that we set the rates back 2 years to recognize this mortality improvement. Note that we have considered the new RP-2000 tables, but we feel that it is less conservative in general (assumes earlier deaths).

Mortality –Disabled Retirees.
Fire & Police: Deaths were 60% of expected. We recommend that we recognize this improvement and change from the 1984 PBGC Disabled Life Mortality Table to the 1994 Group Annuity Mortality Table set forward 2 years.

Mortality – Beneficiaries.
Fire & Police: This group's experience was almost exactly as assumed. We recommend the continuation of the 1994 Group Annuity Mortality Table set back 4 years.

Salary Increases. Over the experience period, average compensation increased for ongoing active members 5.67% per year (new hires reduce this year-to-year increase on an overall basis). This was 3% in excess of the 2.7% inflation for the period. The average assumed merit increase was 1.5%. Despite this, we are recommending no changes since we anticipate that future pay increases will be moderated due to existing and potential tight budgets.

Economic Assumptions. General inflation has been over 2.0% below the assumed rate of 5.0% over both the study period and the past decade. Over the 50-year period ending with the 2004 valuation, the average inflation rate has been 4.0%. The trailing 30-year average is roughly 5%. We recommend lowering the inflation assumption from 5.0% to 4.5% to more closely reflect historical inflation rates and low inflation of the past decade.

For this study period, the real rate of return is well below the 3.5% assumed rate. However, because bear market conditions persisted over much of the study period, we do not view this as a fair representation of long-term expectations.

We believe it appropriate for there to be some reduction in the assumed investment return. We would recommend the following changes:

	Current	Recommended
General inflation	5%	4.5%
	plus	
Real rate of return	3.5%	3.75%
	equals	
Total assumed return	8.5%	8.25%

While it would be reasonable to consider other sets of assumptions, our preference is not to make dramatic changes unless it is crystal clear to do so because of the very long-term nature of funding.

Medical Inflation. Over the long-term, we believe there should be consistency between the general inflation assumption and the medical inflation assumption. If one assumes that medflation will always outpace general inflation, there will come a point that the percentage of America's Gross National Product (GNP) spent on medical care will become so high that we feel confident there would be a profound change in our health delivery system. As it is, America spends a greater percentage of GNP (roughly 15%) on medical care than any other industrialized country.

In the shorter-term, we believe that the medical inflation assumption should be higher than that of general inflation but should gradually trend down to the general inflation rate as years pass. Thus, the lower recommended general inflation rate would also trigger a lowering of recommended future medflation assumptions.

DROP. DROP was introduced during the investigation period. Thus, is too immature to reach any substantive conclusions about assumptions at this point in time. For example, one of the key assumptions in analyzing the financial impact of DROP is the length of the period in which a member would DROP. This maximum period has not yet been reached. The first few years of any new benefit are not likely to be indicative of long term patterns of use by members. This is particularly so because Tier 5 benefit accrual provisions are also significantly different than for other Tiers. Thus, it will be very difficult to ascribe any change in behavior to DROP or non-DROP changes.

We have been valuing DROP participants identical to other active participants. This was based on the study that the DROP would be cost neutral. In other words, the study concludes that the benefit stream would be credited or paid to a DROP member over a longer period of time than if the member did not DROP but there would be an actuarial "offset" due to the lower pension than would be paid to somebody who elected to be credited with additional service and did not DROP.

The number of DROPs was low enough that any impact was *de minimus. There are several different ways in which DROP can be valued. Please see our methodology section.* We propose to continue to value them as active employees except that we use a varying set of assumptions to calculate their liabilities. We will project benefits based on the DROP provisions. We will assume no further decrements other than retirement. Additionally, we will add to the liabilities the accumulated DROP account.

Beginning of Year Discount. Currently, city contributions are discounted by 4.5% for payment at the beginning of the year. In recent years, the City has elected to make its contribution at the beginning of its fiscal year. We recommend that this be revised to be consistent with the investment return assumption and recalculated annually to also reflect that the timing of employee contributions will not change. This would result in a lowering of the discount.

Employee Contributions. We recommend that employee contributions be calculated based on their long term nature and consistent with the method of calculating the City contribution. The rates should also reflect the cessation of contributions after reaching the service limit.

Health Subsidy Usage. Not all eligible retirees avail themselves to Health Subsidy benefits. In such cases, it is usually attributable to alternate coverage with a successor employer, the military or via a spouse. The post-age 65 coverage percentages are higher than the pre-age 65 coverage percentages.
We recommend reducing the pre-age 65 coverage percentage from 85% to 75%.

DISCUSSION

The Experience Investigation Process

The funding objective of the Retirement System is to finance members' benefits with contributions that remain approximately level from generation to generation. This objective is generally considered satisfied if contributions are structured as a level percentage of active member payroll.

Funding objective contributions are calculated by means of an actuarial valuation, a mathematical process. The flow of activity constituting an actuarial valuation may be summarized as follows:

A. Covered People Data, furnished by the administrator including:
   - Retired lives now receiving benefits
   - Former employees with vested benefits not yet payable
   - Active employees

B. + Asset Data (cash & investments), furnished by the administrator

C. + Plan Description Data, furnished by the administrator

D. + Assumptions concerning various future system activities and economic experiences

E. + The Actuarial Cost Method for determining employer contributions (the long-term planned pattern for employer contributions)

F. + Mathematically combining the Data, Assumptions of future activities, and the Funding Method

G. = Determination of:
   Funding Objective Contribution Rate
   and/or System Actuarial Condition

Items A, B and C provide the current "knowns" about the system. However, a good deal of activity which will result in benefit payments has yet to occur. Accordingly, assumptions must be made about future activities (frequently called actuarial assumptions).

The Experience Investigation Process

(Continued)

The assumptions may be classified as demographic and economic. Demographic activities include future mortality rates, disability rates, rates of pre-retirement withdrawal from employment, merit and longevity salary increases, and retirement ages. Economic activities consist of future across-the-board salary increases, future rates of investment return and future rates of inflation.

With modifications for expected future variances, demographic activities are generally selected on the basis of analysis of the system's historical activity or, if the level of activity is too small to be meaningful, the past activity of systems which are similar in nature.

The demographic activities which have had the greatest effect on computed contribution requirements are the probabilities of retirement after becoming eligible and probabilities of withdrawal before becoming eligible to retire. Lower rates of retirement result in lower contributions, and vice-versa. The opposite is true of withdrawal rates. Lower rates of withdrawal result in higher contributions. A third important demographic activity is the rate of mortality after retirement. Longer lifetimes result in higher employer contributions, and vice versa.

Economic activities, on the other hand, do not lend themselves to prediction on the basis of historical analysis because both salary increases and investment return are impacted by inflation which defies accurate long-term prediction. Economic assumptions are generally selected on the basis of the expectations in an inflation-free environment and then both are increased by some provision for long-term inflation.

The Experience Investigation Process

(Concluded)

If inflation is higher than expected it will probably result in actual rates of salary increase and investment return which exceed the assumed rates. Salaries increasing faster than expected produce unexpected liabilities. Investment return exceeding the assumed rates results in unanticipated assets. It is expected that, to a large degree, additional assets will offset additional liabilities over the long-term.

No single set of assumptions about future activities can be labeled "more appropriate" than all other sets. Honest differences of opinion are the norm rather than the exception with regard to future events, particularly in the area of economic assumptions. Selection of a set of assumptions involves policy decisions as well as technical decisions. We encourage your input.

Selection of Assumptions Used in the Actuarial Valuations

Non-Economic Assumptions

- Merit and Seniority Portion of Pay Increases to Individual Employees
- Expected Ages at Retirement
- Rates of Separation Before Retirement
- Rates of Disablement
- Rates of Mortality
- Rates of Usage of Health Subsidy premiums

Economic Assumptions

- Rate of Investment Return
- Rate of Inflation (General Inflation and Medical Inflation)
- Base Portion of Pay Increases to Individual Employees

Relationship Between Retirement Board and the Actuary

The actuary should have the primary responsibility for choosing the non-economic (demographic) assumptions used in the actuarial valuation, making use of specialized training and experience.

The actuary, however, has no special skill concerning the choice of suitable economic assumptions. The basis of the economic assumptions is the assumed rate of inflation, a quantity which defies accurate prediction by anyone. Given an assumed rate of future inflation, however, it is very important that this rate be applied in a consistent manner in deriving both the assumed rate of investment return and the base portion of the pay increase assumptions.

A sound procedure is that the actuary suggests reasonable alternatives for economic assumptions, followed by discussion between the actuary and the Retirement Board. The Board then makes a final choice from the various alternatives.

INVESTIGATION DATA

Summary of Active Member Data Used

Valuation Date	Active Members	Annual Payroll	Average Age	Average Service	Average Pay
2001	12,322	$882,758,282	39.4	12.9	$71,641
2002	12,306	$946,037,252	39.8	13.2	$76,876
2003	12,658	$970,762,720	39.9	13.2	$76,689
2004*	12,649	$997,168,658	40.4	13.7	$78,834

* Before final audit

Summary of Pensioner Data Used

Valuation Date June 30	Pensioner	Averages Attained Age	Averages Retirement Age	Averages Annual Pension	New Retirants During Year Averages Age	New Retirants During Year Averages Annual Pension
2001	11,658	N/A	N/A	$39,233	N/A	N/A
2002	11,760	67.6	49.1	$40,792	54.7	$61,344
2003	11,814	68.1	49.1	$42,735	53.1	$64,147
2004*	11,782	68.5	49.1	$43,955	50.4	$52,039

* Before final audit

DEMOGRAPHIC

ASSUMPTION STUDY

City of Los Angeles Fire & Police Pension Plan
7/1/2001 - 6/30/2004 Experience Investigation
Summary of Withdrawal Experience
Fire

Actual Experience versus Current Withdrawal Assumptions

Group	Actual	Expected	Recommended
20-24	9	12	13
25-29	42	27	51
30-34	69	18	50
35-39	29	11	25
40-44	8	4	8
45-49	2	1	1
50-54	0	0	0
55 +	0	0	0
Totals	159	73	148

COMMENT: The rate of withdrawal was higher than expected during the investigation period. However, almost all the difference was for short-service Firefighters. We recommend leaving rates of withdrawal unchanged after 5 years of service. For Firefighters with less than 5 years of service, we recommend increasing the annual withdrawal rate to 5.5%.

City of Los Angeles Fire & Police Pension Plan
7/1/2001 - 6/30/2004 Experience Investigation
Summary of Withdrawal Experience
Police

Actual Experience versus Current Withdrawal Assumptions

Years of Service	Less Than Five Years of Service	
	Actual	Expected
0	208	73
1	49	43
2	29	56
3	32	77
4	41	100
Totals	359	349

Group	Five or More Years of Service		
	Actual	Expected	Recommended
20-24	0	0	0
25-29	25	15	18
30-34	62	49	59
35-39	55	39	47
40-44	30	19	22
45-49	13	3	4
50-54	1	0	0
55 +	0	0	0
Totals	186	125	150

COMMENT: The rate of withdrawal was higher than expected during the investigation period for those with more than 5 years service. We recommend leaving rates of withdrawal unchanged prior to 5 years of service, but for police with more than 5 years of service, we recommend increasing the current assumed rates of withdrawal by 20%.

Unlike Fire, Police have separate select factors for those actives with less than five years of service.

City of Los Angeles Fire & Police Pension Plan
7/1/2001 - 6/30/2004 Experience Investigation
Summary of Duty Disability Experience
Fire

Group	Actual	Expected	Recommended
< 30	0	0	0
30-34	1	1	0
35-39	0	2	1
40-44	2	5	4
45-49	3	11	7
50-54	5	18	12
55-59	18	34	23
60-64	5	18	12
65 +	1	0	0
Totals	35	89	58

COMMENTS: The data shows fewer disabilities than assumed -- only 40% of expected. Experience is sometimes understated since many disabilities have a long lag time for approval. We recommend decreasing the current assumed rates by one-third at this time.

City of Los Angeles Fire & Police Pension Plan
7/1/2001 - 6/30/2004 Experience Investigation
Summary of Duty Disability Experience
Police

Group	Actual	Expected	Recommended
< 30	0	1	1
30-34	1	4	3
35-39	3	10	7
40-44	9	17	11
45-49	8	20	13
50-54	7	22	14
55-59	4	20	13
60-64	0	4	2
65 +	0	0	0
Totals	32	98	65

COMMENTS: Police had significantly lower than expected disability incidence -- only 33% of expected. The actual rate is higher than illustrated once pending disabilities are included. Also, we believe there may have been a minor data issue in this regard for both Fire and Police in reported disabilities due to the application being in one year and the approval being in a subsequent year.

We recommend decreasing the current assumed rates by one-third at this time.

City of Los Angeles Fire & Police Pension Plan
7/1/2001 - 6/30/2004 Experience Investigation
Summary of Non-Duty Disability Experience
Fire

Group	Actual	Expected	Recommended
< 30	0	0	0
30-34	0	0	0
35-39	0	0	0
40-44	0	1	1
45-49	0	1	1
50-54	0	0	0
55-59	0	0	0
60-64	0	0	0
65 +	0	0	0
Totals	0	2	2

COMMENTS: Experience is less than assumed, but the expected number is already extremely low. We recommend no change at this time.

City of Los Angeles Fire & Police Pension Plan
7/1/2001 - 6/30/2004 Experience Investigation
Summary of Non-Duty Disability Experience
Police

Group	Actual	Expected	Recommended
< 30	0	0	0
30-34	0	1	1
35-39	0	1	1
40-44	0	1	1
45-49	2	1	1
50-54	0	1	1
55-59	0	0	0
60-64	0	0	0
65 +	0	0	0
Totals	2	5	5

COMMENTS: Experience is only 40% of the assumed rate. However, one disability can make a huge difference. We recommend no change at this time.

City of Los Angeles Fire & Police Pension Plan
7/1/2001 - 6/30/2004 Experience Investigation
Summary of Retirement Experience
Fire

Age	Actual	Expected	Recommended
< 50	9	11	0
50	5	33	3
51	5	35	4
52	2	29	5
53	4	25	6
54	4	24	7
55	9	23	9
56	4	18	9
57	9	14	7
58	9	10	5
59	3	9	5
60	5	10	5
61	3	8	4
62	2	5	3
63	2	4	2
64	2	3	2
65 +	2	63	63
Totals	79	325	137

COMMENTS: In total, retirements were less than one-quarter of the assumed rate. However, over 30% of this variance is due to those above age 65. Experience is almost 40% of the assumed rate if that group is excluded. We recommend decreasing the current assumed Tier 5 rate by one-half. We believe this is consistent with the restructured Tier 5 formula which offers much greater incentive to retire later.

City of Los Angeles Fire & Police Pension Plan
7/1/2001 - 6/30/2004 Experience Investigation
Summary of Retirement Experience
Police

Age	Actual	Expected	Recommended
< 50	66	93	56
50	33	74	46
51	25	77	45
52	25	73	41
53	28	73	38
54	45	68	34
55	50	61	29
56	33	45	22
57	15	35	17
58	15	27	13
59	11	22	10
60	8	17	15
61	6	9	9
62	3	6	6
63	1	3	3
64	1	2	2
65+	5	26	26
Totals	370	711	413

COMMENTS: Retirements were 52% of expected. The great majority of the variance was at the younger ages. We recommend no change at this time for ages 60 and over. At ages under 60, we recommend cutting the current assumed Tier 5 rate by one-half.

Below age 50, we recommend using 75% of the current Tier 2 & 4 rate. There is no provision for service retiring below age 50 under Tier 5.

City of Los Angeles Fire & Police Pension Plan
7/1/2001 - 6/30/2004 Experience Investigation
Summary of Active Life Mortality Experience - Ordinary
Fire

Group	Actual	Expected	Recommended
< 20	0	0	0
20-24	0	0	0
25-29	0	0	0
30-34	0	0	0
35-39	0	0	0
40-44	0	1	1
45-49	0	1	1
50-54	0	1	1
55-59	0	0	0
60-64	0	0	0
Totals	0	3	3

COMMENT: Mortality incidence is too low among active employees to develop any credible mortality table based solely on experience. We recommend no change at this time.

City of Los Angeles Fire & Police Pension Plan
7/1/2001 - 6/30/2004 Experience Investigation
Summary of Active Life Mortality Experience - Ordinary
Police

Group	Actual	Expected	Recommended
< 20	0	0	0
20-24	0	0	0
25-29	1	2	2
30-34	1	3	3
35-39	2	3	3
40-44	7	2	2
45-49	3	1	1
50-54	2	1	1
55-59	0	1	1
60-64	0	0	0
Totals	16	13	13

COMMENT: Mortality incidence is too low among active employees to develop any credible mortality table based solely on experience. Although experience was slightly greater than assumed, we recommend no change at this time.

City of Los Angeles Fire & Police Pension Plan
7/1/2001 - 6/30/2004 Experience Investigation
Summary of Active Life Mortality Experience - Duty
Fire

Group	Actual	Expected	Recommended
< 20	0	0	0
20-24	0	0	0
25-29	0	0	0
30-34	0	1	0
35-39	0	1	0
40-44	0	1	1
45-49	0	1	1
50-54	0	1	1
55-59	1	1	0
60-64	1	0	0
Totals	2	6	3

COMMENT: The number of duty deaths was only one-third of what was expected. We recommend cutting the current assumed rates by 50%.

City of Los Angeles Fire & Police Pension Plan
7/1/2001 - 6/30/2004 Experience Investigation
Summary of Active Life Mortality Experience - Duty
Police

Group	Actual	Expected	Recommended
< 20	0	0	0
20-24	0	0	0
25-29	0	1	1
30-34	0	3	1
35-39	0	3	2
40-44	0	3	1
45-49	1	2	1
50-54	1	2	1
55-59	0	1	1
60-64	0	0	0
Totals	2	16	8

COMMENT: The number of duty deaths was just one-eighth of the expected number. The variation may just be a coincidence, but we need to recognize the apparent change. We recommend cutting the current assumed rates by 50%.

City of Los Angeles Fire & Police Pension Plan
7/1/2001 - 6/30/2004 Experience Investigation
Summary of Mortality Experience of Service Retirees

Group	Actual	Expected	Recommended
< 50	1	1	1
50-54	6	7	6
55-59	18	27	22
60-64	16	42	33
65-69	20	47	38
70-74	39	61	51
75-79	76	145	119
80-84	124	187	154
85-89	80	104	88
90 +	38	45	38
Totals	418	666	550

COMMENT: The actual mortality experience is roughly two-thirds of expected. This may be explained by an increasing female population. The female composition of the work force has increased to roughly 15%. We recommend moving from the 1994 Group Annuity Mortality Table to the 1994 Group Annuity Mortality Table set back two years.

City of Los Angeles Fire & Police Pension Plan
7/1/2001 - 6/30/2004 Experience Investigation
Summary of Mortality Experience of Disabled Retirees

Group	Actual	Expected	Recommended
< 50	3	2	1
50-54	3	6	4
55-59	8	20	13
60-64	12	29	21
65-69	15	31	24
70-74	20	31	26
75-79	21	35	30
80-84	29	34	31
85-89	12	14	14
90 +	3	6	6
Totals	126	208	170

COMMENT: Actual deaths are only 60% of expected. The disabled retirees are healthier than a typical group. We recommend moving from the 1984 PBGC Disabled Life Mortality Table to the 1994 Group Annuity Mortality Table set forward two years.

City of Los Angeles Fire & Police Pension Plan
7/1/2001 - 6/30/2004 Experience Investigation
Summary of Mortality Experience of Beneficiaries

Group	Actual	Expected	Recommended
< 50	1	0	0
50-54	0	1	1
55-59	1	1	1
60-64	3	3	3
65-69	7	7	7
70-74	23	20	20
75-79	60	54	54
80-84	65	73	73
85-89	65	73	73
90 +	85	88	88
Totals	310	320	320

COMMENT: Experience was on target for this group. We recommend continuing to use the 1994 Group Annuity Mortality Table set back four years.

City of Los Angeles Fire & Police Pension Plan
7/1/2001 - 6/30/2004 Experience Investigation
Summary of Marriage Incidence at Retirement

Fire

Plan Year	Married	Single	Total
2002	43	7	50
2003	37	6	43
2004	87	13	100

Police

Plan Year	Married	Single	Total
2002	186	18	204
2003	112	13	125
2004	172	26	198

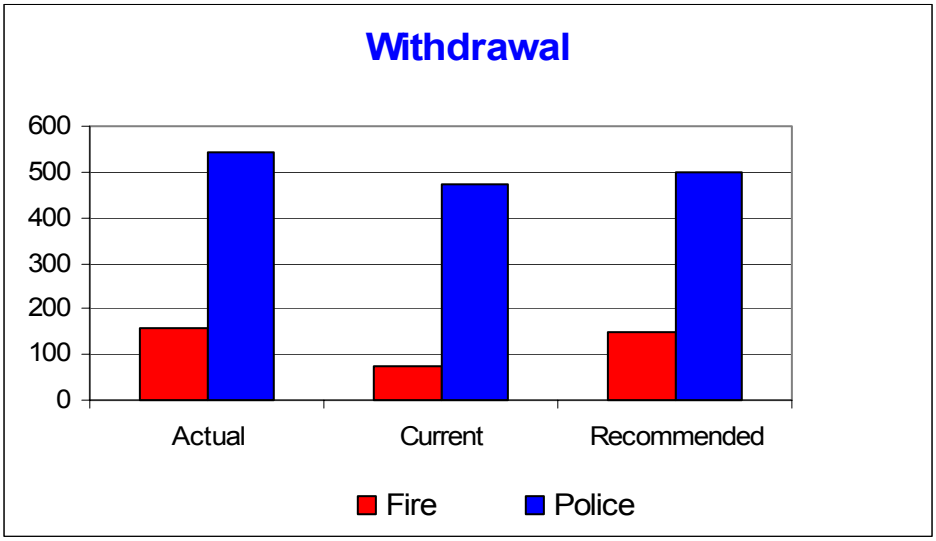
Total

Plan Year	Married	Single	Total
2002	229	25	254
2003	149	19	168
2004	259	39	298
Total	637	83	720

COMMENT: The marital assumption probability is 86%. Actual marriage incidence was 88.5%. We recommend no change.

City of Los Angeles Fire & Police Pension Plan
7/1/2001 - 6/30/2004 Experience Investigation
Summary of Overall Decrement Experience

Type of Separation	Actual	Expected Current	Expected Recommended
Withdrawal			
Fire	159	73	148
Police	545	474	499
Disability-Duty			
Fire	35	89	58
Police	32	98	65
Disability-Non-Duty			
Fire	0	2	2
Police	2	5	5
Service Retirement			
Fire	79	325	137
Police	370	711	413
	Active Non-Duty Death		
Fire	0	3	3
Police	16	13	13
	Active Duty Death		
Fire	2	6	3
Police	2	16	8
	Service Retirees		
Fire & Police	418	666	550
	Disability Retirees		
Fire & Police	126	208	170
	Beneficiaries		
Fire & Police	310	320	320


Withdrawal
600
500
400
300
200
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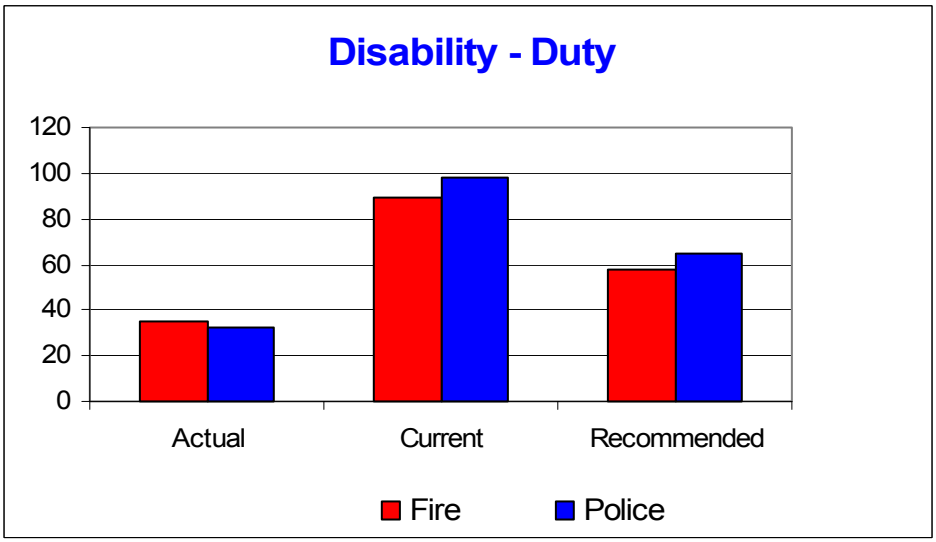
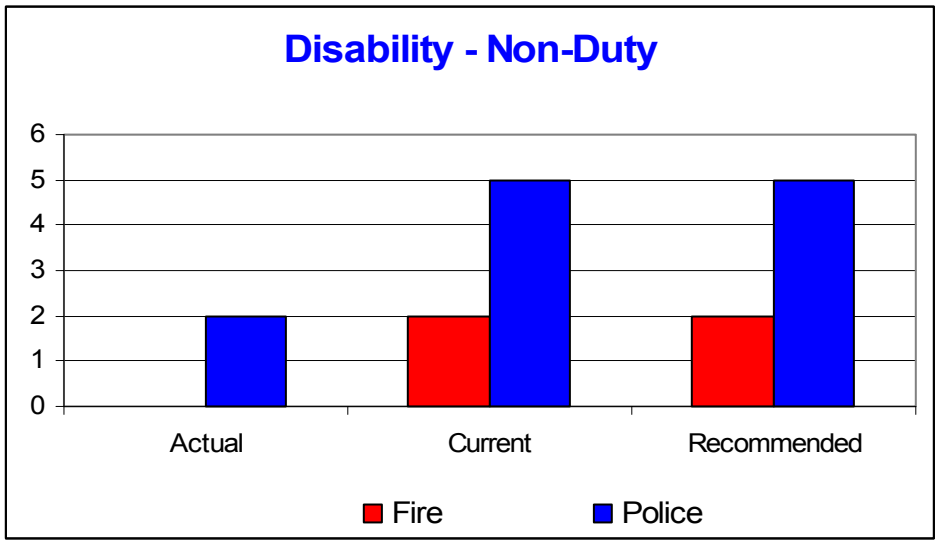
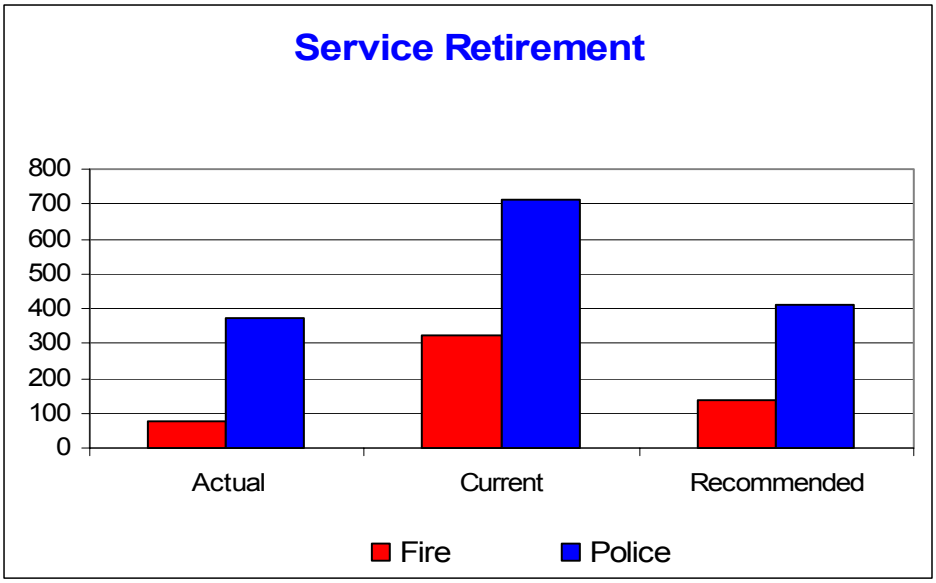
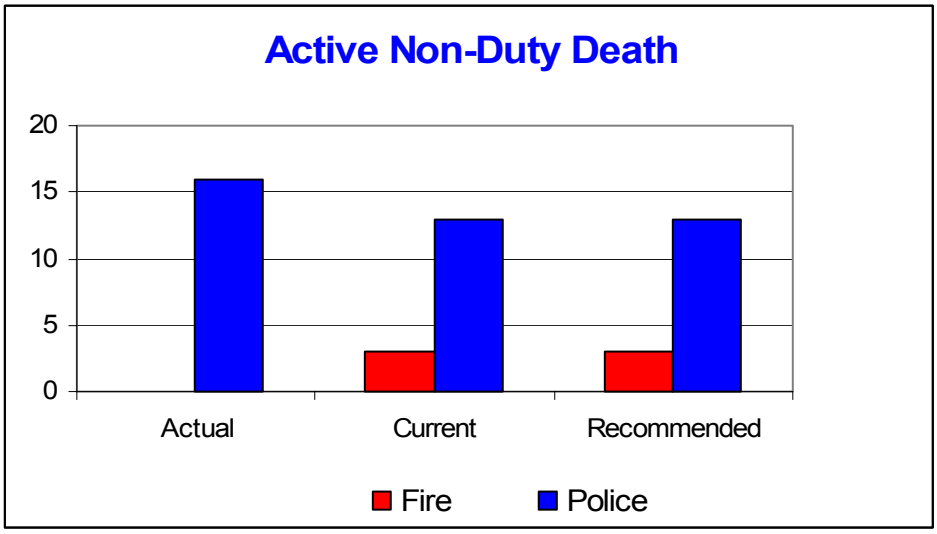
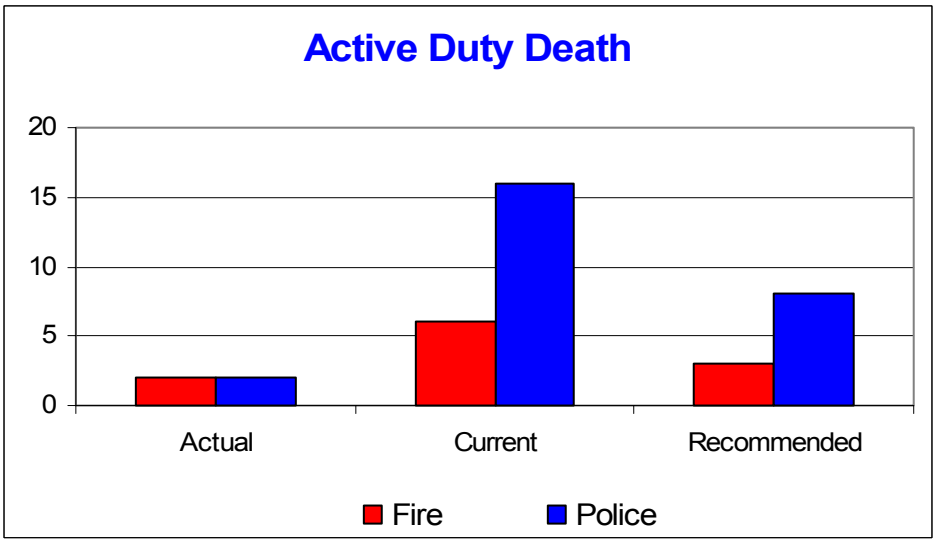
Actual
Current
Recommended
Fire
Police


Disability - Duty
120
100
80
60
40
20
0
Actual
Current
Recommended
Fire
Police

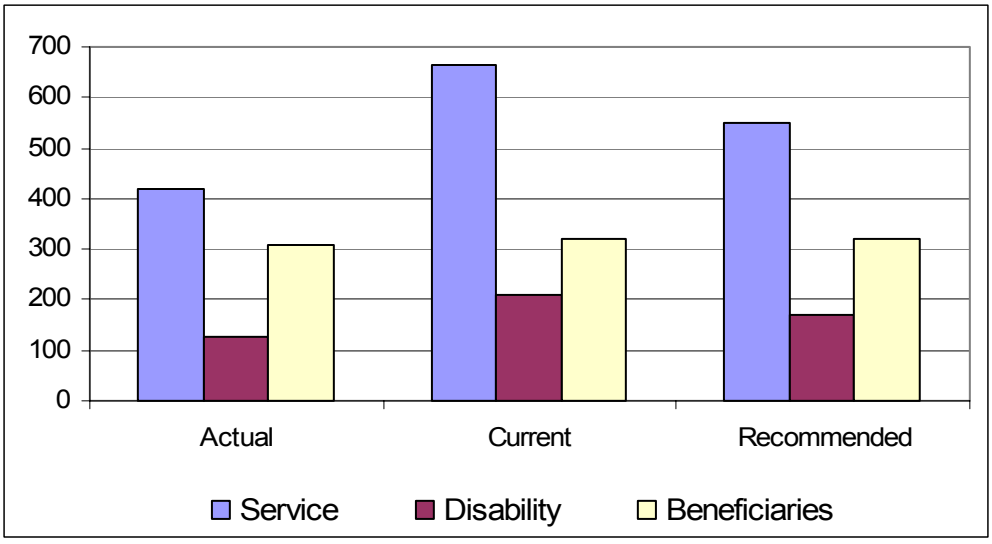

Disability - Non-Duty
6
5
4
3
2
1
0
Actual
Current
Recommended
Fire
Police


Service Retirement
800
700
600
500
400
300
200
100
0
Actual
Current
Recommended
Fire
Police


Active Non-Duty Death
20
15
10
5
0
Actual
Current
Recommended
Fire
Police


Active Duty Death
20
15
10
5
0
Actual
Current
Recommended
Fire
Police

RETIREE MORTALITY



ECONOMIC ASSUMPTION STUDY

City of Los Angeles Fire & Police Pension Plan
7/1/2001 - 6/30/2004 Experience Investigation
Summary of Economic Experience

	Year Ending			3-Year
	6/02	6/03	6/04	Average
Investment Return Rate				
Assumed	8.5%	8.5%	8.5%	8.5%
Actuarial Return	0.3	5.0	3.7[1]	3.0
General Inflation				
Assumed	5.0	5.0	5.0	5.0
Actual	1.7	2.4	4.0	2.7
Real Return				
Assumed	3.5	3.5	3.5	3.5
Actual	(1.4)	2.6	(0.3)[1]	0.3
Salary Increase				
Assumed				
Inflation	5.0	5.0	5.0	5.0
Merit	1.5	1.5	1.5	1.5
Total	6.5	6.5	6.5	6.5
Actual Average Increase[2]	7.3	(0.2)	3.2	3.4

[1] Rough Estimate. Estimate of market return was 16.9%.
[2] Average increase including new entrants; compare to 5% assumed inflation.

Investment Return Rate: Based on the actuarial value of assets and composed of inflation plus real return on investments.

General Inflation: Actual inflation was computed in a manner consistent with the determination of annual cost-of-living allowances. Rates shown are based on the June value of the Consumer Price Index, All Urban, All Items, Base 1982 - 1984.

Consumer Price Index
Urban Wage Earners and Clerical Workers Before 1978
All Urban Consumers After 1977
10 Year Moving Averages

June 30, 1964	1.4%
June 30, 1974	4.7
June 30, 1984	7.8
June 30, 1994	3.6
June 30, 2004	2.5
50-Year Average	**4.0%**

We recommend inflation be reduced from 5% to 4.5% to better reflect the above averages.

Summary of Economic Experience

Real Return: The rate of real return fluctuates significantly year by year due to economic and market conditions. Over the study period, the real return of 0.3% was below the assumed rate of 3.5%. This 3-year period was atypically impacted by the 2000-03 bear market. **If** the Board accepts our recommendation to reduce inflation from 5% to 4.5%, we would also recommend the real rate of return be increased from 3.5% to 3.75%. This would result in an overall assumption of 8.25%.

Staff asked us to calculate the impact of these recommendations on the pension rates based on 2003 demographic data. Our analysis indicates a decrease in the overall rate of 0.29% to 13.50%. 13.79% was the weighted pension rate in the 2003 valuation.

Salary Experience: The numbers below are the increases in average compensation by age during the study period. Although specific numbers vary, note that the pattern of decreasing compensation increases with age is confirmed.

Summary of Age-Based Salary Increase Rates

Group	Actual	Expected
< 20	10.43 %	10.00 %
20-25	7.44	9.00
25-30	7.59	8.00
30-34	6.31	7.00
35-39	5.56	6.00
40-45	5.25	5.75
45-49	5.19	5.50
50-54	4.72	5.50
55-59	4.57	5.00
60-64	3.82	5.00
65+	5.05	5.00
Average	5.67	6.57
Inflation Adjusted	2.97	1.57

COMMENT: After adjusting for inflation, merit increases were greater than expected. However, we recommend no change at this time because we feel tight current and future budgets will moderate against this trend.

MEDICAL ASSUMPTIONS

The monthly premium reimbursement maximums during the three-year analysis period are as follows:

			Maximum Subsidies			
			Under 65		Over 65	
	Dental	Medicare	Retiree	Surviving Spouse	Retiree	Surviving Spouse
2002	$35.75	$54.00	$563.00	$338.99	$563.00	$289.63
2003	38.38	58.70	563.00	400.04	563.00	294.94
2004	39.86	66.60	668.00	452.86	668.00	340.29
2005		78.20				

Recommended Assumptions

	Medical Trend			
	Pre-65	Post-65	Dental Trend	Medicare Part B
2004-05	9.0%	11.25%	4.5%	17.50%
2005-06	8.5%	10.50%	4.5%	13.75%
2006-07	8.0%	9.75%	4.5%	10.00%
2007-08	7.5%	9.00%	4.5%	9.00%
2008-09	7.0%	8.25%	4.5%	8.25%
2009-10	6.5%	7.50%	4.5%	7.50%
2010-11	6.0%	6.75%	4.5%	6.75%
2011-12	5.5%	6.00%	4.5%	6.00%
2012-13	5.0%	5.25%	4.5%	5.25%
2013 +	4.5%	4.50%	4.5%	4.50%

Please understand that these recommended medical inflation assumptions can be partly "overridden" if there are not ongoing increases in the maximum subsidy. For example, the family coverage for pre-age 65 retirees with family coverage is very sensitive to changes in the maximum.

Medical Usage

Health Subsidy Usage

Not every eligible retirant avails themselves of the available health subsidies for medical care, dental or Part B Medicare reimbursement. This is particularly true for those under age 65 due to available coverage with a successor employer or alternate coverage through the military or a spouse.

The coverage percentage is lower for disabled retirants than non-disabled retirants because of the 10-year service and minimum age requirements.

	Number Eligible	Number Using	Percentage Usage	Existing Assumption
Service Retirees				
Pre age 65	3,410	2,452	71.9%	85%
Post age 65	3,635	3,337	91.8	85
Disability Retirees				
Pre age 65	1,427	833	58.4	85
Post age 65	959	803	83.7	85
Surviving Spouse				
Pre age 65	438	254	58.0	85
Post age 65	1,913	1,277	66.8	85
Total				
Pre age 65	**5,275**	**3,539**	**67.1%**	
Post age 65	**6,507**	**5,417**	**83.2%**	

COMMENT: Usage by disability retirees is less than that of service retirees. This makes sense because of the minimum service requirement of ten years and the minimum age requirement. These figures suggest reducing usage percentages. However, there is a clear trend toward cutting coverage by many alternative providers who are the main reason that usage is less than 100%.

We recommend reducing pre-age 65 usage probability from 85% to 75% and retaining the 85% usage probability for post-age 65 coverage.

Methodology

Funding Method - The current funding method is Entry Age Normal. This method is used by a solid majority of public systems. In our view, this is an excellent funding method which produces a greater degree of cost stability than other methods (such as Projected Unit Credit).

Consistency of Assumptions - The methodology we inherited from Watson Wyatt has Tier-specific assumptions that varied widely from Tier to Tier. Also, there were use of different assumptions within each Tier between Police and Fire. To simplify the valuation process and to eliminate what we view as certain inconsistencies in assumptions among different Tiers, there will be one set of assumptions for Fire and one set of assumptions for Police. The distinction in activity among Tiers has become less significant each year, because of the large percentage of actives in Tier 5.

Amortization Bases - There is some statutory language which compels actuarial gains (losses) to be amortized over 15 years and other events (benefit increases and assumption changes) to be amortized over 30 years. If it were not for such statutory language, we would recommend a simplifying change. However, the status is a reasonable, if complicated, approach for funding since there are many bases that are further bifurcated by Tier. All parties should recognize that the City may have a pension expense in excess of funding requirements for purposes of their financial statements. This will be particularly true for fiscal years beginning on or after 2006 due to changing expense rules under GASB Statements #25 and #27. Expensing and funding are two separate concepts.

Asset Valuation Method - The Actuarial Value of Assets is based on a method that recognizes the expected increase in assets. The difference between this expected return on the market value and the actual return on the market value (the investment gain / loss) is also recognized at a rate of 20% per year. The final value is limited to no more than 120% of the market value or no less than 80% of the market value. While we have no strong objections to the current method, we believe it is more consistent and best practice to have the starting point at the beginning of each year to be the actuarial value of assets instead of market value at the beginning of the year.

Employee Contribution Rate Derivation - The current methodology uses some very rough estimates to calculate the impact of the potential cessation of contributions after working for a minimum number of years. We propose to change this such that a long-term, weighted employee contribution rate is calculated for each Tier using the same principles of present value that apply to other aspects of the valuation process.

Calculation of Normal Cost as a Percent of Payroll - For each Tier, normal cost is expressed as a percent of payroll. This percent is applied to the actual payroll. The mechanics we inherited were to calculate the dollar amount of normal cost for the closed group of actives and divide this by the valuation payroll for actives to develop a percentage. In our view, the last step is not consistent practice.

This approach implicitly assumes that each member will work the entire year and, thus, overstates the applicable payroll for the closed group on the valuation date. Since the normal cost dollars are based on a closed group, so should the applied payroll. Clearly, some of the group at the valuation date will retire, terminate or become disabled during the year. Since this is so, it is best to calculate the expected payroll for the closed group and use this in lieu of valuation payroll.

This recommendation will increase the normal cost by 1-2%. Currently, we use a 50/50 blend of the inherited approach and the approach we view as best practice for pension costing.

DROP Treatment – There is currently inadequate history to tell what the impact of DROP will be on working careers, how many people enter DROP and the length of time they will be in DROP. There are three options in how to evaluate DROP:

1) Continue the status quo. This assumes that the value of the foregone pension will be approximately equal to the value of the DROP account.

2) Treat individuals as retired when they DROP. Their liability would be treated as the sum of the actuarial value of their prospective pension and their DROP balance at valuation date.

3) Make assumptions as to the percent who will DROP and the length of their DROP period. Assume funding to the end of their DROP period.

In a perfect world, we would recommend option #3. In view of the inadequate data, we have a slight preference for option #2 but can live with the status quo.

Beginning of Year Discount - Currently, city contributions are discounted by 4.5% for payment at the beginning of the year. In recent years, the City has elected to make its contribution at the beginning of its fiscal year. We recommend that this be revised to be consistent with the investment return assumption and recalculated annually to also reflect that the timing of employee contributions will not change. This would result in a lowering of the discount.

CONCLUSION

City of Los Angeles Fire & Police Pension Plan
7/1/2001 - 6/30/2004 Experience Investigation
Summary of Preliminary Recommendations Concerning Experience

Type of Activity	Present	Proposed	Effect on Liabilities (Plus or Minus)
Withdrawal			
Fire	Graded rates by age	Increase rates under 5 years service to 5.5%	Slight Minus
Police	Graded rates by age and service	Rates increased 20% if more than 5 years service	Slight Minus
Disability - Duty			
Fire	Graded rates by age	Decrease by one-third	Minus
Police	Graded rates by age	Decrease by one-third	Minus
Disability – Non-Duty			
Fire	Graded rates by age	No Change	None
Police	Graded rates by age	No Change	None
Service Retirement			
Fire	Graded rates by age	Rates decreased 50% and eliminated below 50	Minus
Police	Graded rates by age	Rates less than 60 decreased 50%. Rates less than 50 decreased 25%	Minus
Pre-retirement Mortality - Ordinary			
Fire	Graded Rates by age	No Change	None
Police	Graded rates by age	No Change	None
Pre-retirement Mortality - Duty			
Fire	Graded rates by age	50% of current rates	Slight Minus
Police	Graded rates by age	50% of current rates	Slight Minus

City of Los Angeles Fire & Police Pension Plan
7/1/2001 - 6/30/2004 Experience Investigation
Summary of Preliminary Recommendations Concerning Experience
(continued)

Post-retirement Mortality – Service Retirees	1994 Group Annuity Basic Mortality Table	1994 Group Annuity Basic Mortality Table (set back two years)	Plus
Post-retirement Mortality - Disableds	1984 PBGC Disabled Life Mortality Table (set back three years)	1994 Group Annuity Basic Mortality Table (set forward two years)	Plus
Post-retirement Mortality - Beneficiaries	1994 Group Annuity Basic Mortality Table (set back four years)	No Change	None
Investment Return	8.50%	8.25%	Plus
General Inflation	5.00%	4.50%	Significant Plus
Real Rate of Return	3.50%	3.75%	Significant Minus
Asset Valuation Method	Recognize expected return with 5 year averaging of differences [1]	No Change	None
Merit Salary Increases	Graded rates by age	No Change	None
Marriage Incidence	86%	86%	None
Medical Premium Usage	85% Medical 65% Dental 90% Medicare Part B	Reduce pre-age 65 Medical to 75%; No change otherwise	Minus
Medflation	Varies between 6.5% - 7%	Increase in short-term trends, particularly for Medicare part B. Decrease in long-term trend due to lower General inflation.	Uncertain
Methodology	Uses valuation payroll	Change to expected pays	Significant Plus

[1] See page 42 for detailed description of the asset valuation method.

KEY

"Slight" means the anticipated change would be less than 0.35%

"Significant" means the anticipated change would be greater than 1%.

If other than "slight" or "significant", we would estimate that the impact would be between 0.35% and 1%.

APPENDIX A

Current Actuarial Assumptions

Actuarial Assumptions Used for the June 30, 2003 Valuation

The investment return rate used for the actuarial valuation calculations was 8.5% a year, net of administrative expenses, compounded annually. This assumption, used to equate the value of payments due at different points in time, is adopted by the Pension Board. The rate is comprised of two elements:

General Inflation	5.0%
Real Rate of Return	3.5%
Total	8.5%

The general inflation rate used for the actuarial valuation calculations was 5% per year, compounded annually. It represents the difference between the investment return rate and the assumed real rate of return.

Compensation increase rates used to project current pays to those, upon which a benefit will be based, are represented by the following table.

Annual Rate of Compensation Increase

General Inflation	5.0%
plus	
Merit & Longevity	See Table Below for Sample Ages

Age	Additional Salary Increase
20	5.00%
25	4.00%
30	3.00%
35	2.00%
40	1.00%
45	0.75%
50	0.50%
55	0.50%
60	0.50%

Actuarial Assumptions Used for the June 30, 2003 Valuation

(Continued)

Rates of separation from active membership are shown below (rates do not include separation on account of retirement). This assumption measures the probabilities of members remaining in employment. All decrements are assumed to occur at the beginning of the valuation year.

Fire Members

Sample Ages	Withdrawal*	% of Active Members Separating Within Next Year: Death		Death while eligible for:		Disability	
		Ordinary	Service	Service Retirement	Disability Retirement	Ordinary	Service
20	7.75%	0.00%	0.02%	0.00%	0.00%	0.00%	0.03%
25	3.78%	0.00%	0.03%	0.00%	0.00%	0.00%	0.03%
30	1.99%	0.01%	0.04%	0.01%	0.01%	0.00%	0.03%
35	1.11%	0.01%	0.05%	0.02%	0.02%	0.02%	0.07%
40	0.54%	0.02%	0.06%	0.03%	0.03%	0.02%	0.16%
45	0.26%	0.02%	0.07%	0.03%	0.03%	0.03%	0.40%
50	0.00%	0.03%	0.08%	0.04%	0.04%	0.03%	0.90%
55	0.00%	0.04%	0.09%	0.06%	0.06%	0.04%	3.00%
60	0.00%	0.05%	0.10%	0.07%	0.07%	0.05%	7.00%

Police Tier 2 Members

Sample Ages	Withdrawal*	% of Active Members Separating Within Next Year: Death		Death while eligible for:		Disability	
		Ordinary	Service	Service Retirement	Disability Retirement	Ordinary	Service
20	7.88%	0.06%	0.02%	0.00%	0.06%	0.00%	0.03%
25	4.68%	0.06%	0.03%	0.00%	0.04%	0.00%	0.03%
30	2.78%	0.06%	0.04%	0.00%	0.04%	0.02%	0.05%
35	1.65%	0.06%	0.05%	0.01%	0.04%	0.02%	0.11%
40	0.98%	0.08%	0.06%	0.02%	0.05%	0.03%	0.30%
45	0.58%	0.08%	0.07%	0.03%	0.05%	0.03%	0.55%
50	0.00%	0.09%	0.08%	0.04%	0.06%	0.03%	0.80%
55	0.00%	0.12%	0.10%	0.05%	0.08%	0.03%	1.60%
60	0.00%	0.15%	0.10%	0.06%	0.10%	0.03%	2.00%

*No withdrawal is assumed once a member is vested.

Actuarial Assumptions Used for the June 30, 2003 Valuation

(Continued)

Police Tier 3-5 Members

		% of Active Members Separating Within Next Year					
	Withdrawal*	Death		Death while eligible for:		Disability	
Sample Ages		Ordinary	Service	Service Retirement	Disability Retirement	Ordinary	Service
20	7.00%	0.06%	0.02%	0.00%	0.06%	0.00%	0.03%
25	5.18%	0.06%	0.03%	0.00%	0.04%	0.00%	0.03%
30	3.53%	0.06%	0.04%	0.00%	0.04%	0.02%	0.05%
35	2.21%	0.06%	0.05%	0.01%	0.04%	0.02%	0.11%
40	1.41%	0.08%	0.06%	0.02%	0.05%	0.03%	0.30%
45	1.25%	0.08%	0.07%	0.03%	0.05%	0.03%	0.55%
50	0.00%	0.09%	0.08%	0.04%	0.06%	0.03%	0.80%
55	0.00%	0.12%	0.10%	0.05%	0.08%	0.03%	1.60%
60	0.00%	0.15%	0.10%	0.06%	0.10%	0.03%	2.00%

*No withdrawal is assumed once a member is vested. Withdrawal rates for Members with less than five years of service is the greater of the above rate and 5.5%.

The post-retirement mortality table used was the 1994 Group Annuity Mortality Basic Table. This assumption is used to measure the probabilities of members dying after retirement and the probabilities of each benefit payment being made after retirement. Spouses use the same table with a four-year set back.

	Future Life Expectancy (Years)		% Dying Within Next Year	
	Non-disabled Retirees		Non-disabled Retirees	
Sample Ages	Members	Spouses	Members	Spouses
45	34.7	38.5	0.17%	0.12%
50	30.0	33.7	0.28	0.19
55	25.5	29.1	0 .48	0.31
60	21.2	24.6	0.86	0.53
65	17.3	20.4	1.56	0.97
70	13.8	16.5	2.55	1.75
75	10.7	13.1	4.00	2.79

Actuarial Assumptions Used for the June 30, 2003 Valuation

(Continued)

The 1984 PBGC Disabled Life Mortality Table is used for disability retirants, with a three-year setback. Related values are shown below.

Future Life Expectancy (Years)	% Dying Within Next Year
Disabled Retirees	Disabled Retirees
Sample Ages	Members	Members
45	30.4	0.38%
50	26.0	0.62
55	22.0	0.99
60	18.1	1.55
65	14.7	2.48
70	11.7	3.77
75	9.0	5.78

Actuarial Assumptions Used for the June 30, 2003 Valuation

(Continued)

The rates of retirement used to measure the probability of eligible members retiring during the next year.

Retirement Ages	Fire Members Tiers 2 & 4	Police Members Tiers 2 & 4	Fire Members Tiers 3 & 5	Police Members Tiers 3 & 5
41	1.00%	6.00%	0.00%	0.00%
42	1.00%	6.00%	0.00%	0.00%
43	1.00%	6.00%	0.00%	0.00%
44	1.10%	6.00%	0.00%	0.00%
45	1.15%	6.00%	0.00%	0.00%
46	1.20%	7.16%	0.00%	0.00%
47	1.25%	8.32%	0.00%	0.00%
48	1.40%	9.47%	0.00%	0.00%
49	1.60%	10.63%	0.00%	0.00%
50	2.00%	11.79%	20.00%	25.00%
51	2.75%	12.95%	18.00%	22.50%
52	3.60%	14.11%	16.00%	20.00%
53	4.70%	15.26%	14.00%	18.00%
54	5.75%	16.42%	12.00%	16.00%
55	7.30%	17.58%	10.00%	15.42%
56	8.86%	18.74%	8.86%	16.11%
57	9.85%	19.89%	9.85%	16.84%
58	10.94%	21.05%	10.94%	17.60%
59	12.16%	22.21%	12.16%	18.40%
60	13.52%	23.37%	13.52%	19.23%
61	15.03%	24.53%	15.03%	20.10%
62	16.70%	25.68%	16.70%	21.01%
63	18.56%	26.84%	18.56%	21.96%
64	20.63%	28.00%	20.63%	22.95%
65	100.00%	100.00%	100.00%	100.00%

Actuarial Assumptions Used for the June 30, 2003 Valuation

(Continued)

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

Marital Status – 86% are assumed married or having a domestic partner at retirement.

Spouse Census – Spouses are assumed to be 3 years younger than members.

Dependent Children – Members are assumed to have two children with a three-year difference in age. The elder is assumed to reach age 21 when the participant reaches age 45.

Interest Credit on Employee Contributions: 5.0%

Cost of Living: 5.0% for Tiers 1 and 2
3.0% for Tiers 3, 4, and 5

Average Service-Connected Disability Benefits: Benefits are assumed to follow this schedule:

Years of Service at Time of Disability	Percent of Salary Base
Less than 20	50%
20-30	60%
Over 30	70%

Average Nonservice-Connected Disability benefit for Tiers 3, 4, & 5: 40% of Salary Base.

Funding Method: Entry Age Normal Funding Method.

Asset Valuation Method: The actuarial value of assets is determined by phasing in, over five years, the difference between the actual and expected realized and unrealized appreciation. The expected appreciation is based on the assumed 8.5% rate of return. The actuarial value of assets can be no less than 80% and no greater than 120% of the market value of assets.

DROP Program: The DROP program became effective in May of 2002. Since it was priced on a cost neutral basis there have been no assumption changes in this valuation for DROP program consideration. As the program matures, it would be beneficial to study actual DROP experience and consider explicitly reflecting actual experience.

The City of Los Angeles Fire and Police Pension Plan

Summary of Actuarial Assumptions and Methods

Used for Valuation of Health Subsidy Benefits

Funding Method: Entry Age Normal Funding Method

Discount Rate: 8.5%

Health Trend Rates:

	Medical Trend			
	Pre-65	Post 65	Dental Trend	Medicare Part B
2004-2005	6.75%	6.50%	6.75%	6.50%
2005+	6.50%	6.50%	6.50%	6.50%

Members Assumed to Receive Subsidy:	85% of all retirees are assumed to receive a subsidy for an approved health carrier.
Spouses and Domestic Partners:	86% of retirees who receive a subsidy are assumed to be married or have a qualified domestic partner and elect dependent coverage, with members being three years older than spouses/domestic partners.
Medicare Coverage:	90% of retirees are assumed to elect Medicare Parts A & B.
Dental Coverage:	65% of retirees are assumed to elect dental coverage.
Spousal Coverage:	With regard to Members who are currently alive, 70% of eligible spouse or domestic partners are assumed to elect continued health coverage after the Member's death. With regard to deceased Members, 70% of the current eligible survivors are assumed to elect health coverage.
All other Assumptions and Methods:	Same as used for valuation of retirement benefits.

APPENDIX B

Recommended Actuarial Assumptions

Changes to current assumptions are shown in red

Actuarial Assumptions Used for the June 30, 2003 Valuation

The investment return rate used for the actuarial valuation calculations was 8.25% a year, net of administrative expenses, compounded annually. This assumption, used to equate the value of payments due at different points in time, is adopted by the Pension Board. The rate is comprised of two elements:

General Inflation	4.50%
Real Rate of Return	3.75%
Total	8.25%

The general inflation rate used for the actuarial valuation calculations 4.5% per year, compounded annually. It represents the difference between the investment return rate and the assumed real rate of return.

Compensation increase rates used to project current pays to those, upon which a benefit will be based, are represented by the following table.

Annual Rate of Compensation Increase

General Inflation	4.5%
plus	
Merit & Longevity	See Table Below for Sample Ages

Age	Additional Salary Increase
20	5.00%
25	4.00%
30	3.00%
35	2.00%
40	1.00%
45	0.75%
50	0.50%
55	0.50%
60	0.50%

Actuarial Assumptions Used for the June 30, 2003 Valuation

(Continued)

Rates of separation from active membership are shown below (rates do not include separation on account of retirement). This assumption measures the probabilities of members remaining in employment. All decrements are assumed to occur at the beginning of the valuation year.

Fire Members

		% of Active Members Separating Within Next Year					
	Withdrawal*	Death		Death while eligible for:		Disability	
Sample Ages		Ordinary	Service	Service Retirement	Disability Retirement	Ordinary	Service
20	7.75%	0.00%	0.01%	0.00%	0.00%	0.00%	0.02%
25	3.78%	0.00%	0.02%	0.00%	0.00%	0.00%	0.02%
30	1.99%	0.01%	0.02%	0.01%	0.01%	0.00%	0.02%
35	1.11%	0.01%	0.03%	0.01%	0.01%	0.02%	0.05%
40	0.54%	0.02%	0.03%	0.02%	0.02%	0.02%	0.11%
45	0.26%	0.02%	0.04%	0.02%	0.02%	0.03%	0.27%
50	0.00%	0.03%	0.04%	0.02%	0.02%	0.03%	0.60%
55	0.00%	0.04%	0.05%	0.03%	0.03%	0.04%	2.00%
60	0.00%	0.05%	0.05%	0.04%	0.04%	0.05%	4.67%

*No withdrawal is assumed once a member is vested; 5.5% if service is less than 5 years.

Actuarial Assumptions Used for the June 30, 2003 Valuation

(Continued)

Police Members

	% of Active Members Separating Within Next Year						
	Withdrawal*	Death		Death while eligible for:		Disability	
Sample Ages		Ordinary	Service	Service Retirement	Disability Retirement	Ordinary	Service
20	8.40%	0.06%	0.01%	0.00%	0.03%	0.00%	0.02%
25	6.22%	0.06%	0.02%	0.00%	0.02%	0.00%	0.02%
30	4.24%	0.06%	0.02%	0.00%	0.02%	0.02%	0.03%
35	2.65%	0.06%	0.03%	0.01%	0.02%	0.02%	0.07%
40	1.69%	0.08%	0.03%	0.01%	0.03%	0.03%	0.20%
45	1.50%	0.08%	0.04%	0.02%	0.03%	0.03%	0.37%
50	0.00%	0.09%	0.04%	0.02%	0.03%	0.03%	0.53%
55	0.00%	0.12%	0.05%	0.03%	0.04%	0.03%	1.07%
60	0.00%	0.15%	0.05%	0.03%	0.05%	0.03%	1.33%

*No withdrawal is assumed once a member is vested. Withdrawal rates for Members with less than five years of service is the greater of the above rate and 5.5%.

The post-retirement mortality table used was the 1994 Group Annuity Mortality Basic Table with a 2-year set back. This assumption is used to measure the probabilities of members dying after retirement and the probabilities of each benefit payment being made after retirement. Spouses use the same table with a four-year set back.

	Future Life Expectancy (Years)		% Dying Within Next Year	
	Non-disabled Retirees		Non-disabled Retirees	
Sample Ages	Members	Spouses	Members	Spouses
45	36.6	38.5	0.15%	0.12%
50	31.9	33.7	0.23	0.19
55	27.3	29.1	0.39	0.31
60	22.9	24.6	0.68	0.53
65	18.8	20.4	1.23	0.97
70	15.1	16.5	2.14	1.75
75	11.9	13.1	3.35	2.79

Actuarial Assumptions Used for the June 30, 2003 Valuation

(Continued)

The 1994 Group Annuity Basic Table with a 2-year set forward is used for disability retirants. Related values are shown below.

Future Life Expectancy (Years)	% Dying Within Next Year
Disabled Retirees	Disabled Retirees
Sample Ages	Members	Members
45	32.8	0.20%
50	28.2	0.34
55	23.7	0.53
60	19.6	1.09
65	15.8	1.94
70	12.5	3.06
75	9.5	4.86

Actuarial Assumptions Used for the June 30, 2003 Valuation

(Continued)

The rates of retirement used to measure the probability of eligible members retiring during the next year.

Retirement Ages	Fire Members	Police Members
41	0.00%	1.92%
42	0.00%	1.92%
43	0.00%	1.92%
44	0.00%	1.92%
45	0.00%	1.92%
46	0.00%	5.37%
47	0.00%	6.24%
48	0.00%	7.10%
49	0.00%	7.97%
50	1.00%	12.50%
51	1.38%	11.25%
52	1.80%	10.00%
53	2.35%	9.00%
54	2.88%	8.00%
55	3.65%	7.71%
56	4.43%	8.06%
57	4.93%	8.42%
58	5.47%	8.80%
59	6.08%	9.20%
60	6.76%	19.23%
61	7.52%	20.10%
62	8.35%	21.01%
63	9.28%	21.96%
64	10.32%	22.95%
65	100.00%	100.00%

Actuarial Assumptions Used for the June 30, 2003 Valuation

(Continued)

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

Marital Status – 86% are assumed married or having a domestic partner at retirement.

Spouse Census – Spouses are assumed to be 3 years younger than members.

Dependent Children – Members are assumed to have two children with a three-year difference in age. The elder is assumed to reach age 21 when the participant reaches age 45.

Interest Credit on Employee Contributions: 5.0%

Cost of Living: 4.5% for Tiers 1 and 2
3.0% for Tiers 3, 4, and 5

Average Service-Connected Disability Benefits: Benefits are assumed to follow this schedule:

Years of Service at Time of Disability	Percent of Salary Base
Less than 20	50%
20-30	60%
Over 30	70%

Average Nonservice-Connected Disability benefit for Tiers 3, 4, & 5: 40% of Salary Base.

Funding Method: Entry Age Normal Funding Method.

Asset Valuation Method: The actuarial value of assets is determined by phasing in, over five years, the difference between the actual and expected realized and unrealized appreciation. The expected appreciation is based on the assumed 8.25% rate of return. The actuarial value of assets can be no less than 80% and no greater than 120% of the market value of assets.

DROP: DROP participants are valued as active employees with projected DROP benefits. Accumulated DROP Accounts are added to DROP participant liabilities.

The City of Los Angeles Fire and Police Pension Plan

Summary of Actuarial Assumptions and Methods

Used for Valuation of Health Subsidy Benefits

Funding Method: Entry Age Normal Funding Method

Discount Rate: 8.25%

Health Trend Rates:

	Medical Trend			
	Pre-65	Post-65	Dental Trend	Medicare Part B
2004-05	9.0%	11.25%	4.5%	17.50%
2005-06	8.5%	10.50%	4.5%	13.75%
2006-07	8.0%	9.75%	4.5%	10.00%
2007-08	7.5%	9.00%	4.5%	9.00%
2008-09	7.0%	8.25%	4.5%	8.25%
2009-10	6.5%	7.50%	4.5%	7.50%
2010-11	6.0%	6.75%	4.5%	6.75%
2011-12	5.5%	6.00%	4.5%	6.00%
2012-13	5.0%	5.25%	4.5%	5.25%
2013 +	4.5%	4.50%	4.5%	4.50%

Members Assumed to Receive Subsidy: 85% of all retirees over age 65 are assumed to receive a subsidy for an approved health carrier. 75% of retirees under age 65 are assumed to receive a subsidy.

Spouses and Domestic Partners: 86% of retirees who receive a subsidy are assumed to be married or have a qualified domestic partner and elect dependent coverage, with members being three years older than spouses/domestic partners.

Medicare Coverage: 90% of retirees are assumed to elect Medicare Parts A & B.

Dental Coverage: 65% of retirees are assumed to elect dental coverage.

Spousal Coverage: With regard to Members who are currently alive, 70% of eligible spouse or domestic partners are assumed to elect continued health coverage after the Member's death. With regard to deceased Members, 70% of the current eligible survivors are assumed to elect health coverage.

All other Assumptions and Methods: Same as used for valuation of retirement benefits.