Summary Of Assumptions Used For DGRS Actuarial Valuations

assumptions adopted by Board of Trustees after consulting with actuary

ECONOMIC ASSUMPTIONS

The investment return rate used in the valuation was 7.8% per year, compounded annually (net after administrative expenses). The real rate of return is the portion of total investment return which is more than the inflation rate. Considering other financial assumptions, the 7.8% total investment return rate translates to an assumed real rate of return of 3%.

Pay increase assumptions for individual active members have been calculated. Part of the assumption for each age is for a merit and/or seniority increase, and the other 4.8% recognizes inflation.

Total active member payroll is assumed to increase 4.8% annually, which is the portion of the individual pay increase assumptions attributable to wage inflation.

NON-ECONOMIC ASSUMPTIONS

The number of active members is assumed to continue at the present number.

The mortality table used to measure retired life mortality was 90% of the 1983 Group Annuity Mortality Table. This table was first used for the June 30, 1998 valuation.

The probabilities of age/service retirement for members eligible to retire have been calculated. These probabilities were last revised for the June 30, 2003 valuation.

The probabilities of separation from service (including death-in-service) are shown for sample ages. These probabilities were revised for the June 30, 2003 valuation.

Funding Methods

The entry age actuarial cost method was used in determining age and service liabilities and normal cost, vesting liabilities and normal cost, and casualty liabilities and normal cost.

Differences between assumed experience and actual experience ("actuarial gains and losses") become part of actuarial accrued liabilities.

Unfunded actuarial accrued liabilities, if any, are amortized over periods of future years to produce contribution amounts (principal and interest) which are level percent of payroll contributions.

Employer contribution dollars were assumed to be *paid in a single sum on the last day* of the employer fiscal year. (Adopted for the 6/30/79 actuarial valuation.)

Valuation assets recognize investment return above or below the actuarial assumed rate over a three-year period. (Adopted for the 6/30/95 actuarial valuation.)

The effect of changes in eligibility for normal retirement due to service purchases was approximated by increasing computed actuarial accrued liabilities by 5%. In addition, active member accrued liabilities were increased by 2% to approximate the effect of incomplete service data.

The data about persons now covered and about present assets were furnished by the System's administrative staff. Although examined for general reasonableness, the data was not audited by the actuary.

The actuarial valuation computations were made by or under the supervision of a Member of the American Academy of Actuaries (M.A.A.A.).

2003-2004 Fiscal Year
Employer Contribution Rates
Computed Payable Last Day of Fiscal Year

expressed as percents of active member payroll

Contributions for	Contributions Expressed as Percents of Payroll
Normal Cost	
Age & service allowances	18.27%
Disability allowances	11.65
Duty death allowances	0.53
Total	**30.90**
Members current contributions:#	3.78
(Future refunds)	(0.56)
Available for monthly benefits	**3.22**
Employer Normal Cost	**27.68**
Actuarial Accrued Liabilities	
Total ($ Millions)	$3,523.40
Funding Value of Assets	3,635.10
Full Funding Credit - dollars	$(111.70)
(17-year amortization)	(3.90)%
Computed Employer Rate After FFC Offset	**23.78%**

Member statutory contributions of 5% to Annuity Savings Fund are not payable during all periods of covered employment. The rate shown is the equivalent rate if paid during all covered employment.

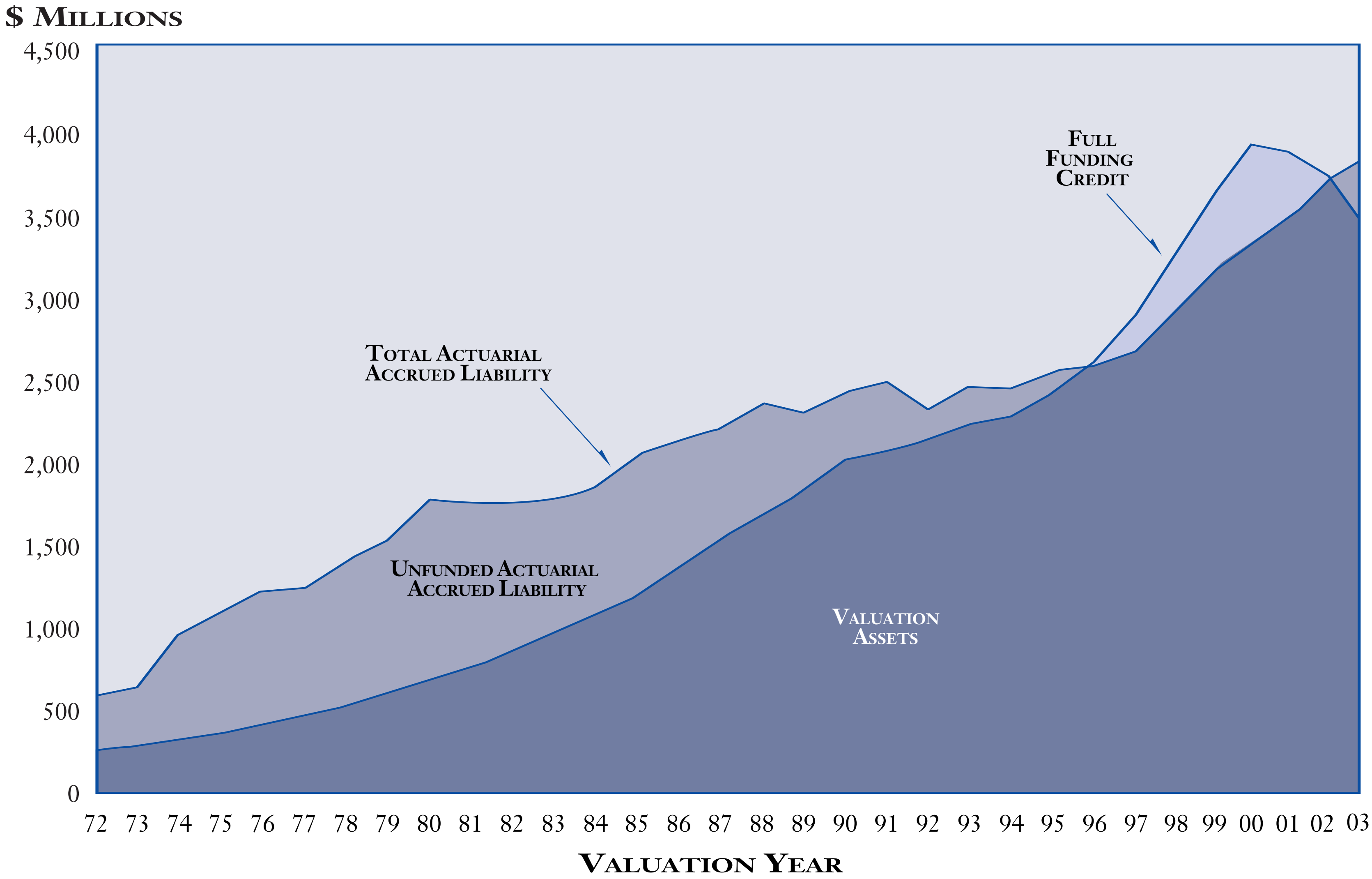
Comment

The Employer Normal Cost (27.68% of covered payroll) would be the rate without recognition of the excess of recognized assets over accrued liabilities. (the Full Funding Credit)

JUNE 30, 2003
ACTUARIAL ACCRUED LIABILITIES

PRESENT VALUE, JUNE 30	AMOUNT
ACCRUED PENSION LIABILITIES	
Retirees and beneficiaries	$ 2,385,682,781
Inactive members future deferred pensions	5,538,149
Active members	974,330,771
Total accrued pension liabilities	3,365,551,701
Pension fund balances	2,849,475,148
Unfunded accrued pension liabilities (Full funding credit)	$ 516,076,553
ACCRUED ANNUITY LIABILITIES	
Retirees and beneficiaries	
Future annuities	$ 8,885,117
Contingency reserve	5,843,126
Total	$ 14,728,243
Members annuities and future refunds	341,313,266
Total accrued annuity liabilities	356,041,509
Annuity fund balances	356,041,509
Unfunded accrued annuity liabilities	$ 0
SYSTEM TOTALS	
Actuarial Accrued Liabilities	**$3,721,593,210**
Accrued Assets	**3,205,516,657**
Unfunded Actuarial Accrued Liabilities (Full funding credit)	**$ 516,076,553**

Retirement System Totals
Assets and Accrued Liabilities



COMPARATIVE STATEMENT

	Active Payroll		Actuarial Accrued Liabilities $ In Millions				
June 30	Total	Average	Computed Total	Valuation Assets	Unfunded	Unfunded/ Active Pays	Employer Contributions % of Pays
1993(a)	$204.3	$38,846	$2,493.2	$2,256.0	$237.2	1.2	28.97%
1994	199.7	38,693	2,486.2	2,304.4	181.8	0.9	27.64
1995(a)	209.7	39,692	2,574.2	2,443.0	131.2	0.6	25.90
1996	212.7	39,965	2,633.4	2,628.6	4.8	0.0	21.81
1997(b)	217.6	40,145	2,724.1	2,944.2	(220.1)	0.0	7.32
1998*	217.5	40,772	2,976.8	3,325.9	(349.1)	0.0	26.16#
1999@	216.0	40,542	3,724.1	3,668.4	(394.3)	0.0	26.17#
2000*	237.7	43,376	3,342.1	3,964.2	(622.1)	0.0	27.25#
2001	253.3	45,353	3,463.2	3,900.0	(436.8)	0.0	27.22#
2002(a)	248.7	46,203	3,632.0	3,635.1	(3.1)	0.0	23.39#
2003	**$248.7**	**$47,305**	**$3,721.6**	**$3,205.5**	**$516.1**	**2.1**	**43.89%**

(a) After changes in actuarial assumptions.
(b) After changes in actuarial assumptions and temporary full funding credit.
* Plan amended.
\# Employer normal cost before full funding credit.
@ After $55.4 million reserve for 1998-99 13th check and ASF distributions.

In an inflationary economy the value of dollars is decreasing. This environment results in employee pays increasing in dollar amounts, retirement benefits increasing in dollar amounts, and then, unfunded accrued liabilities increasing in dollar amounts, all at a time when the actual substance of these items may be decreasing. Looking at just the dollar amounts of unfunded accrued liabilities can be misleading. Unfunded accrued liabilities dollars divided by active employee payroll provides an index which helps understanding. **The smaller the ratio of unfunded liabilities to active member payroll, the stronger the system.** Observation of this relative index over a period of years will give an indication of whether the system is becoming financially stronger or weaker.

Solvency Tests

The PFRS funding objective is to meet long-term benefit promises through contributions that remain approximately level from year to year as a percent of member payroll. If the contributions to the System are level in concept and soundly executed, the System will pay all promised benefits when due – the ultimate test of financial soundness. Testing for level contribution rates is the **long-term solvency test.**

A short-term solvency test is one means of checking a system's progress under its funding program. In a short-term solvency test, the plan's present assets (cash and investments) are compared with:

1) Active member contributions on deposit;
2) The liabilities for future benefits to present retired lives;
3) The liabilities for service already rendered by active members.

In a system that has been following the discipline of level percent-of-payroll financing, the liabilities for active member contributions on deposit (liability 1) and the liabilities for future benefits to present retired lives (liability 2) will be fully covered by present assets (except in rare circumstances). In addition, the liabilities for service already rendered by active members (liability 3) will often be partially covered by the remainder of present assets. The larger the funded portion of liability 3, the stronger the condition of the System.

Short-Term Solvency Test
5-Year Comparative Statement
($ Millions)

	Actuarial Accrued Liabilities				Portion of Accrued Liabilities Covered by Assets			
June 30	(1) Active Member Contr.	(2) Retirees and Benef.	(3) Present Members (Employer Financed Portion)	Assets	(1)	(2)	(3)	Total
1999	$205	$2,035	$1,034	$3,668	100%	100%	138%	112%
2000*	283	2,192	867	3,964	100	100	172	119
2001	365	2,255	843	3,900	100	100	152	113
2002(a)	391	2,299	942	3,635	100	100	100	100
2003	**$341**	**$2,400**	**$980**	**$3,206**	**100%**	**100%**	**47%**	**86%**

* After changes in benefit provisions.
(a) After changes in actuarial assumptions.

GASB Statement 25 Required Supplementary Information

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) – Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
1993#	$2,255,955,423	$2,493,225,379	$237,269,956	90.5%	$204,289,195	116.1%
1994	2,304,360,431	2,486,218,878	181,858,447	92.7%	199,734,550	91.1%
1995#	2,443,016,319	2,574,189,310	131,172,991	94.9%	209,733,734	62.5%
1996	2,628,627,790	2,633,394,644	4,766,854	99.8%	212,656,401	2.2%
1997#	2,944,208,105	2,820,330,323	(123,877,782)	104.4%	217,585,229	–
1998#*	3,325,929,721	2,976,770,662	(349,159,059)	111.7%	217,479,443	–
1999	3,668,362,979	3,274,050,127	(394,312,852)	112.0%	216,049,687	–
2000*	3,964,231,470	3,342,123,550	(662,107,920)	118.6%	237,741,560	–
2001	3,900,020,703	3,463,248,393	(436,772,310)	112.6%	253,297,027	–
2002#	3,635,106,581	$3,631,971,488	$(3,135,133)	100.1%	248,663,133	–
2003	$3,205,516,657	$3,721,593,210	$516,076,553	86.1%	$248,681,461	207.5%

* Plan amended.

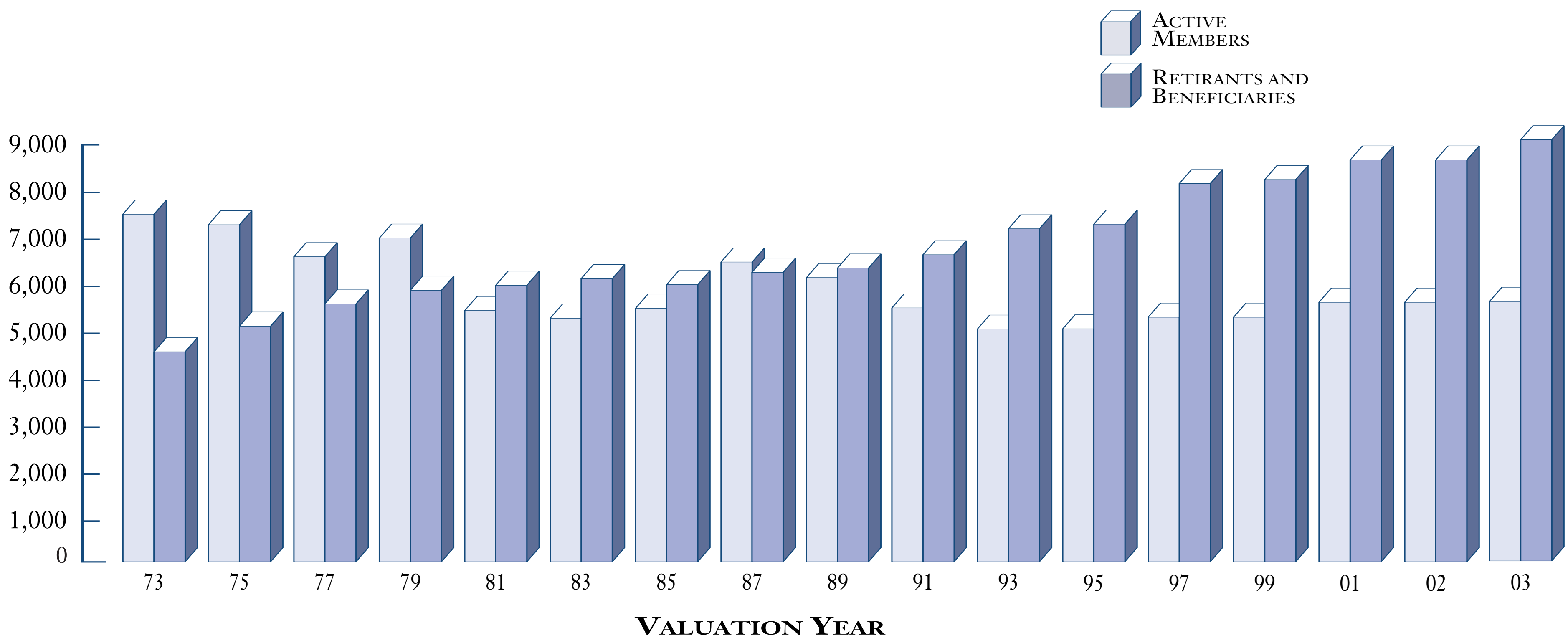
\# After changes in actuarial assumptions.

Comparative Statements of Annual Retirement Allowances

being paid to retirants and beneficiaries

	No. Retired		% of Current Allowances			Current Allowances	
June 30	Pre-1969	Total	Annuities	Pensions	Escalators	Total	Average
1993	5,349	7,091	1.0%	59.5%	39.5%	$129,027,970	$18,196
1994	5,249	7,169	0.9	61.7	37.4	131,595,379	18,356
1995	5,161	7,311	0.9	61.3	37.8	138,959,417	19,007
1996	5,049	7,469	0.8	62.6	36.6	143,536,485	19,218
1997	5,012	7,743	0.8	63.3	35.9	150,843,744	19,481
1998	4,719	7,750	0.7	65.8	33.5	154,226,437	19,900
1999	4,573	7,883	0.7	68.4	30.9	158,523,816	20,110
2000	4,498	8,079	0.6	70.0	29.4	164,279,376	20,334
2001	4,394	8,166	0.6	67.4	32.0	180,239,652	22,072
2002	4,229	8,179	0.5	68.4	31.1	185,658,396	22,699
2003	**4,104**	**8,277**	**0.5%**	**69.8%**	**29.7%**	**$191,634,636**	**$23,153**

Retirement System Totals
Active and Retired Members



Comparative Statement of Active Members & Valuation Payroll

June 30	No. Members: 1969 Plan	No. Members: Pre-1969	Total Members: No.	Total Members: % Change	Total Members: Ratio of Active to Retired	Total Members: Annual Payroll	Average Pay: $	Average Pay: Change
1993	4,534	725	5,259	0%	0.7	$204,289,195	$38,846	- 0.6%
1994	4,578	584	5,162	- 2	0.7	199,734,550	38,693	- 0.4
1995	4,779	505	5,284	+ 2	0.7	209,733,734	39,692	+ 2.6
1996	4,889	432	5,321	+ 1	0.7	212,656,401	39,965	+ 0.7
1997	5,049	371	5,420	+ 2	0.7	217,585,229	40,145	+ 0.5
1998	5,018	316	5,334	- 2	0.7	217,479,443	40,772	+ 1.6
1999	5,099	230	5,329	0	0.7	216,049,687	40,542	- 0.6
2000	5,291	190	5,481	+ 3	0.7	237,741,560	43,376	+ 7.0
2001	5,453	132	5,585	+ 2	0.7	253,297,027	45,353	+ 4.6
2002	5,290	92	5,382	-4	0.7	248,663,133	46,203	+ 1.9
2003	**5,181**	**76**	**5,257**	**- 2%**	**0.6**	**$248,681,461**	**$47,305**	**+ 2.4%**

Active Members As Of June 30, 2003

by attained age & years of service

POLICE MEMBERS

Years of Service to Valuation Date

Attained Age	0-4	5-9	10-14	15-19	20-24	25-29	30+	Totals No.	Totals Valuation Payroll
20-24	178							178	$6,236,392
25-29	419	197	1					617	24,848,952
30-34	307	473	47	1				828	36,111,264
35-39	118	227	111	151				607	28,363,130
40-44	46	76	58	286	3			469	22,851,407
45-49	14	30	28	232	123	37	2	466	23,767,799
50-54	4	6	9	99	130	100	101	449	24,068,980
55-59	1		4	12	46	34	139	236	12,890,133
60	1				3	2	14	20	1,054,771
61	1				8	2	9	20	1,051,546
62					1	1	6	8	415,752
63							5	5	311,075
64							9	9	479,924
66							2	2	90,976
67							1	1	85,000
68							3	3	168,713
Totals	**1,089**	**1009**	**258**	**781**	**314**	**176**	**291**	**3,918**	**$182,795,814**

FIRE MEMBERS

Years of Service to Valuation Date

Attained Age	0-4	5-9	10-14	15-19	20-24	25-29	30+	Totals No.	Totals Valuation Payroll
Under 20									
20-24	53							53	$1,804,065
25-29	112	16						128	4,787,846
30-34	98	69	46	1				214	8,965,878
35-39	35	48	126	59	1			269	12,777,566
40-44	20	21	65	83	14	3		206	10,096,836
45-49	4	3	19	56	34	32	0	148	7,987,088
50-54			6	9	26	98	63	202	11,808,316
55-59			1	4	7	20	82	114	7,309,918
60			1				4	5	348,134
Totals	**322**	**157**	**264**	**212**	**82**	**153**	**149**	**1,339**	**$65,885,647**

Total Active Members
As Of June 30, 2003

by attained age & years of service

Attained Age	0-4	5-9	10-14	15-19	20-24	25-29	30+	Totals: No.	Totals: Valuation Payroll
Under 20									
20-24	231							231	8,040,457
25-29	531	213	1					745	29,636,798
30-34	405	542	93	2				1,042	45,077,142
35-39	153	275	237	210	1			876	41,140,696
40-44	66	97	123	369	17	3		675	32,948,243
45-49	18	33	47	288	157	69	2	614	31,754,887
50-54	4	6	15	108	156	198	164	651	35,877,296
55-59	1		5	16	53	54	221	350	20,200,051
60	1		1		3	2	18	25	1,402,905
61	1				8	2	9	20	1,051,546
62					1	1	6	8	415,752
63							5	5	311,075
64							9	9	479,924
65							2	2	90,976
66									0
67							1	1	85,000
68							3	3	168,713
Totals	**1,411**	**1,166**	**522**	**993**	**396**	**329**	**440**	**5,257**	**$248,681,461**

Group Averages:

	Police	Fire	Total
Age:	38.9 years	40.6 years	39.3 years
Service:	12.4 years	14.8 years	13.0 years
Annual Pay:	$46,655	$49,205	$47,305

Actuarial Comments

REVISED ASSUMPTIONS AND FUNDING METHODS

Each year as of June 30, the actuarial liabilities of DPFRS are valued. In order to perform the valuation, assumptions must be made regarding the future experience of the System with regard to the following risk areas:

1. Rates of **withdrawal** of active members.
2. Rates of **disability** among active members.
3. Patterns of **salary increases** to active members.
4. Rates of **retirement** among active members.
5. Rates of **mortality** among active members, retirants and beneficiaries.
6. Long-term rates of **investment return** to be generated by system assets.

Assumptions should be carefully chosen and continually monitored. An unrealistic set of assumptions can lead to:

- Understated costs resulting in either an inability to pay benefits when due, or sharp increases in required contributions at some point in the future;
- Overstated costs resulting in either benefit levels that are kept below the level that could be supported by the computed rate, or an unnecessarily large burden on the current generation of members, employers and taxpayers.

A single set of assumptions will not be suitable indefinitely. Things change, and our understanding of things (whether or not they are changing) also changes.

In recognition of this, the City Charter provides that assumptions used to value the liabilities of the Policemen and Firemen Retirement System should be studied in depth every five years. The package of assumptions is then adjusted to reflect basic experience trends – but not random year-to-year fluctuations. Actuarial assumptions were revised following the 1997-2002 experience study. A summary of the experience study results follows:

Rates of Withdrawals from service were varied but higher than current rates. The recommended revised withdrawal assumptions recognize a portion of the observed rates. Full credibility is generally not given to a 5-year experience period because it is not known that recent trends will persist indefinitely.

Pay increase rates (merit and seniority portion) were found to be higher than assumed rates, especially for members with fewer than 5-years of service. As with other decrement changes, the recommended rates partially reflect observed experience.

Retirement Experience indicated many more retirements than expected for Police members. Retirement experience for Fire members indicated fewer retirements than expected. Each group's results indicated that service is being purchased to allow for earlier retirements. Recommended rates reflect these trends. This change puts upward pressure on contribution rates.

Post-Retirement Mortality Rates observed in the study were only slightly greater than the present assumed rates. Consequently, it is recommended that mortality rates remain unchanged since they already include a margin for future longevity improvement.

Pre-Retirement Mortality experience was inconclusive. Recommended rates are the same as current rates and are approximately 90% of post-retirement mortality rates.

Non-Duty Disability rates were found to be lower than expected for both the Police and Fire group. Recommended rates partially reflect the observed lower rates of non-duty disability over the past 5 years.

Duty Disability rates were found to be much lower than previously assumed for Police and higher for the Fire group. Recommended rates partially reflect the observed patterns of duty disability over the past 5 years.

VALUATION METHOD. The method used to measure the cost of disability and death-in-service benefits was changed from a 5-year terminal funding method to the entry age normal cost method. The previous method is a carry-over from the original city charter. This change puts all portions of the rate setting process on a consistent basis.

EXPERIENCE DURING THE PAST YEAR

Overall experience was less favorable than assumed during the year ended June 30, 2003. The primary source of the experience loss was investment return that was less than assumed. Under the asset valuation method, gains and losses are spread over a 3 year period. As a result of market value losses in this year, and the prior two years, the funding value of assets now exceeds the market value by $327 million. If the unrecognized losses are not offset by future market gains (i.e., returns in excess of 7.8%), the funded status will decline over the next 2 years, and the computed employer contribution rate will continue to increase.

ANNUITY RESERVE FUND

The contingency reserve in the Annuity Reserve Fund is $5.8 million and the ratio of the ARF balance to computed liabilities is over 160%. The size of the contingency is likely to increase further unless a balance is restored. The Board approved a transfer for $12 million from the Annuity Reserve Fund to the Pension Accumulation Fund in May 2001. An additional transfer of $4 million at this time would reduce the funded ratio to 120% which would still provide an ample margin for unforeseen contingencies.

CONTRIBUTION RECEIVABLE

Financial information submitted for the year indicated employer contributions of $66,843,029 were unpaid as of June 30, 2003.

OVERALL FINANCIAL CONDITION

The Retirement System continues in sound actuarial condition in accordance with the principles of level percent-of-payroll financing.