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 making the valuation was 7.9% 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 economic assumptions, the 7.9% total investment return rate translates to an assumed real rate of return of 3.9%.

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 4.0% recognizes inflation.

Total active member payroll is assumed to increase 4.0% annually, which is the portion of the individual pay increase assumptions attributable to 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, 2003, valuation.

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

The probabilities of separation from service (including *death-in-service* and *disability*) 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 & service pension liabilities and normal cost, vesting liabilities and normal cost, and casualty pension liabilities and normal cost.

Differences between assumed experience and actual experience ("actuarial gains and losses") become part of actuarial accrued liabilities and are amortized over a 15-year period.

Unfunded actuarial accrued liabilities (net of actuarial gains and losses after 6/30/92 and 6/30/98) are amortized over a 20-year period, to produce contribution amounts (principal & interest) which are level percent of payroll contributions.

Employer contribution dollars were assumed to be paid in equal monthly installments throughout the employer fiscal year.

Present assets were reported to be valued using a three-year smoothing of the difference between expected and actual investment income.

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.).

2004-2005 Fiscal Year
General City Computed Employer Contribution Rates

expressed as percents of active member payroll

Contributions for	Contributions Expressed as a Percent of Payroll					
	General City	D.O.T.	Water	Sewage	Housing	Library
Normal Cost:						
Age & Service Pensions	7.25%	6.54%	6.86%	6.75%	7.32%	7.25%
Disability Pensions	1.49	1.07	1.55	1.49	1.37	1.53
Death-in-Service Pensions	0.31	0.31	0.35	0.37	0.32	0.24
Employer Normal Cost	9.05	7.92	8.76	8.61	9.01	9.02
Unfunded Actuarial Accrued Liabilities#	14.40	15.67	21.06	1.48	4.10	12.70
Computed Employer Contribution Rates	**23.45%**	**23.59%**	**29.82%**	**10.09%**	**13.11%**	**21.72%**
(Change from last year)	3.02	3.09	2.48	9.35	0.97	5.06

Unfunded actuarial accrued liabilities (UAAL) were amortized over 15 years.

Comment

The valuation results shown above do not include a provision for the potential financial effect of retroactive transfers to the 1998 Defined Contribution Plan, which will occur after that plan has been approved and implemented.

Employer Computed Contributions – Historic Comparison

Valuation Date June 30	General	D.O.T.	Water	Sewage	Housing	Library	Totals
	As Percents of Valuation Payroll						
1994	12.31	11.35	13.42	0.25	8.55	7.65	10.79
1995	14.71	12.65	15.68	0.98	10.74	10.28	12.91
1996	13.23	12.52	15.83	0.00	9.74	7.64	11.58
1997(a)	13.47	12.94	15.32	0.00	9.34	7.09	11.84
1998(a)*	15.80	14.23	17.16	0.00	11.38	9.73	13.75
1999*	15.31	13.70	16.95	0.00	10.48	8.04	13.26
2000	15.19	14.37	17.12	0.00	9.01	6.97	13.37
2001	15.92	15.36	19.12	0.00	9.25	9.20	14.27
2002	20.43	20.50	27.34	0.74	12.14	16.66	19.06
2003	23.45	23.59	29.82	10.09	13.11	21.72	22.72
2004	**22.73%**	**23.32%**	**38.16%**	**6.25%**	**0.00%**	**23.56%**	**23.23%**

(a) After changes in actuarial assumptions.
* After plan amendments.

Retirement System Totals

persons in valuations-comparative statements

Active Members

June 30	Active Members No.	Active Members Change	Annual Payroll	Group Averages: Annual Pay $	Group Averages: Annual Pay Change	Group Averages: Age Years	Group Averages: Serv. Years
1994	11,382	-1.1	325,427,813	28,591	-0.6	43.1	12.8
1995	11,515	+1.2	327,615,936	28,451	-0.5	42.2	12.6
1996	12,086	+5.0	360,068,578	29,792	+4.7	42.8	11.9
1997	12,369	+2.3	382,835,917	30,951	+3.9	42.8	11.7
1998	12,261	-0.9	387,022,423	31,565	+2.0	43.3	11.8
1999	11,987	-2.2	383,449,421	31,989	+1.3	43.7	12.1
2000	12,147	+1.3	417,187,666	34,345	+7.4	43.5	12.0
2001	12,744	+4.9	439,636,072	34,497	+0.4	43.3	11.7
2002	12,639	-0.8	440,680,045	34,867	+1.1	43.7	11.8
2003	12,833	+1.5	448,579,064	34,955	+0.3	43.5	11.7
2004	**11,791**	**-8.1%**	**$444,596,299**	**$37,706**	**+7.9%**	**44.5**	**12.5**

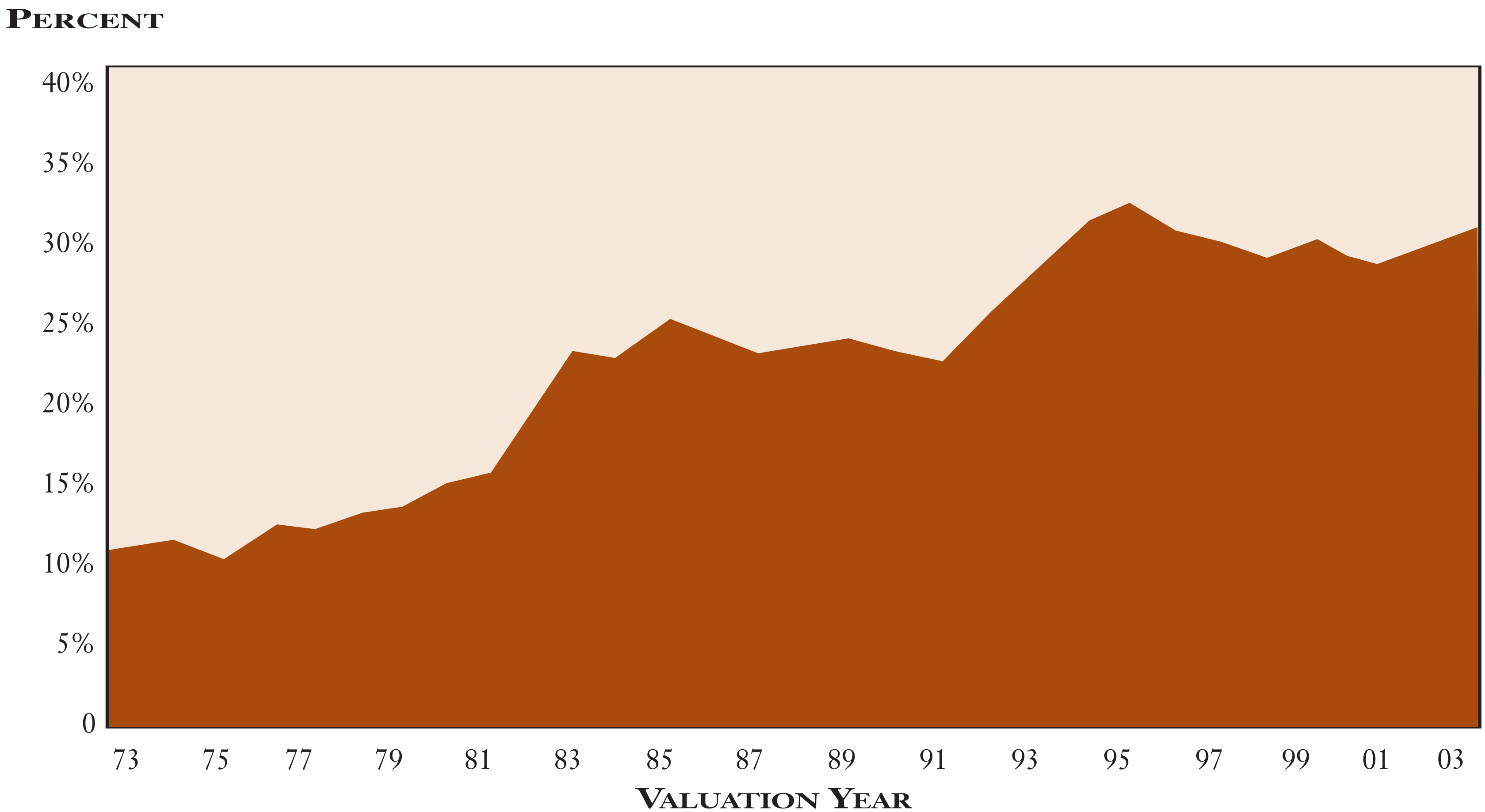
Retirement System Totals Con't

persons in valuations-comparative statements

Retirants & Beneficiaries

June 30	No.	% of Current Allowances: Annuities	Initial Pensions	Escalators & Other Increases	Allow.	Annual Allowances: Total	Average	% Payroll
1994	11,649	2.8	76.9	20.3	100.0	106,193,220	9,116	32.6%
1995	11,756	2.7	76.7	20.6	100.0	110,262,876	9,379	33.7
1996	11,889	2.6	75.5	21.9	100.0	115,232,400	9,692	32.0
1997	12,199	2.4	74.4	23.2	100.0	121,255,488	9,940	31.7
1998	11,593	2.3	73.7	24.0	100.0	119,852,820	10,338	31.0
1999	11,537	2.4	76.6	21.0	100.0	127,535,748	11,054	33.3
2000	11,480	2.2	77.7	20.1	100.0	129,354,696	11,268	31.0
2001	11,450	2.3	77.7	20.0	100.0	133,170,804	11,631	30.3
2002	11,363	2.2	78.2	19.6	100.0	140,805,120	12,392	32.0
2003	11,322	2.4	78.3	19.3	100.0	147,024,720	12,986	32.8
2004	**11,311**	**2.6%**	**78.5%**	**18.9%**	**100.0%**	**$154,133,460**	**$13,627**	**34.7%**

Benefits as a Percent of Payroll

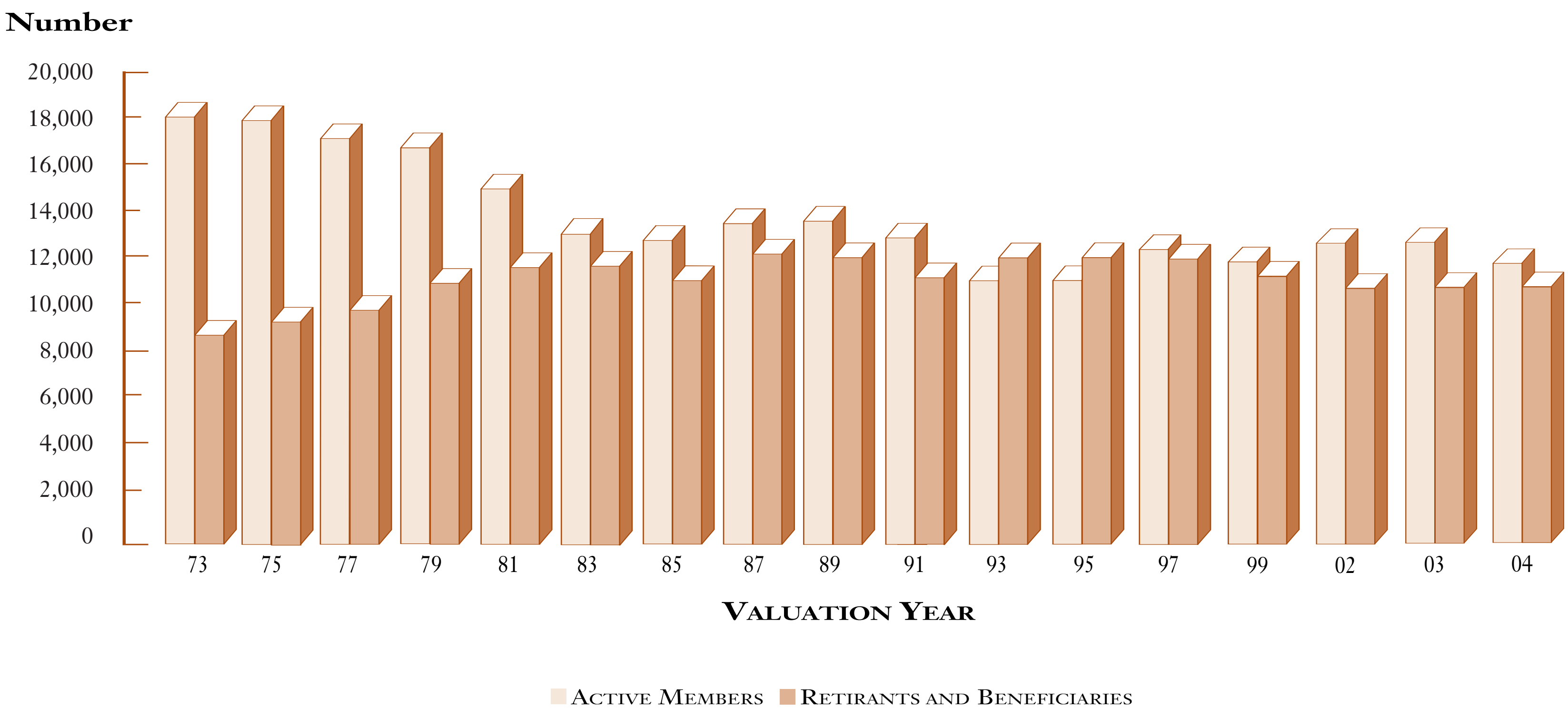


Retirants and Beneficiaries
June 30, 2004

tabulated by year of retirement

Year of Retirement	No.	Monthly Allowances Total	Monthly Allowances Average
1950 & before	5	$1,633	$327
1951-1955	20	7,573	379
1956-1960	10	4,052	405
1961-1965	62	24,159	390
1966-1970	226	98,862	437
1971-1975	680	386,406	568
1976-1980	1,575	1,175,653	746
1981-1985	2,014	2,992,017	989
1986-1990	1,541	1,591,457	1,033
1991-1995	1,914	2,253,790	1,178
1996-2000	1,926	2,844,264	1,477
2001	352	572,506	1,626
2002	441	796,019	1,805
2003	387	756,282	1,954
2004	158	339,782	2,151
Totals	**11,311**	**$13,844,455**	**$1,224**

Retirement System Totals
Active and Retired Members



Solvency Tests

The DGRS 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 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

	Actuarial Accrued Liabilities				Portion of Accrued Liabilities Covered by Assets			
June 30	(1) Active Member Contr.	(2) Retirants And Benef.	(3) Present Members (Employer-Financed Portion)	Valuation Assets	(1)	(2)	(3)	Total
2000	$726	$1,265	$1,086	$2,902	100	100	84	94%
2001	721	1,292	1,086	2,902	100	100	77	92
2002(a)	706	1,371	1,174	2,761	100	100	58	85
2003	689	1,447	1,135	2,538	100	100	35	78
2004	**$658**	**$1,546**	**$1,180**	**$2,470**	**100%**	**100%**	**23%**	**73%**

(a) After changes in actuarial assumptions.
\# After plan amendments.

Schedule of Funding Progress

Actuarial Valuation Date June 30	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)
1995	$2,043,397,183	$2,275,210,040	$231,812,857	89.8%	$327,615,936	70.8%
1996	2,193,234,516	2,382,866,954	189,632,438	92.0	360,068,578	52.7
1997#	2,333,412,893	2,528,504,057	195,091,164	92.3	382,835,917	51.0
1998#*	2,582,099,884	2,814,878,226	232,778,342	91.7	387,022,423	60.1
1999*	2,756,614,458	2,900,404,223	143,789,765	95.0	383,449,421	37.5
2000	2,902,433,063	3,077,001,129	174,568,066	94.3	417,187,666	41.8
2001	2,912,146,389	3,179,601,214	267,454,825	91.6	439,636,072	60.8
2002#	2,761,203,680	3,250,514,916	489,311,236	84.9	440,680,045	111.0
2003	2,537,668,376	3,270,627,177	732,958,801	77.6	448,579,064	163.4
2004	**$2,470,243,470**	**$3,383,926,672**	**$913,683,202**	**73.0%**	**$444,596,299**	**205.5%**

* After all plan amendments.
\# After changes in actuarial assumptions.

Retirement System Totals

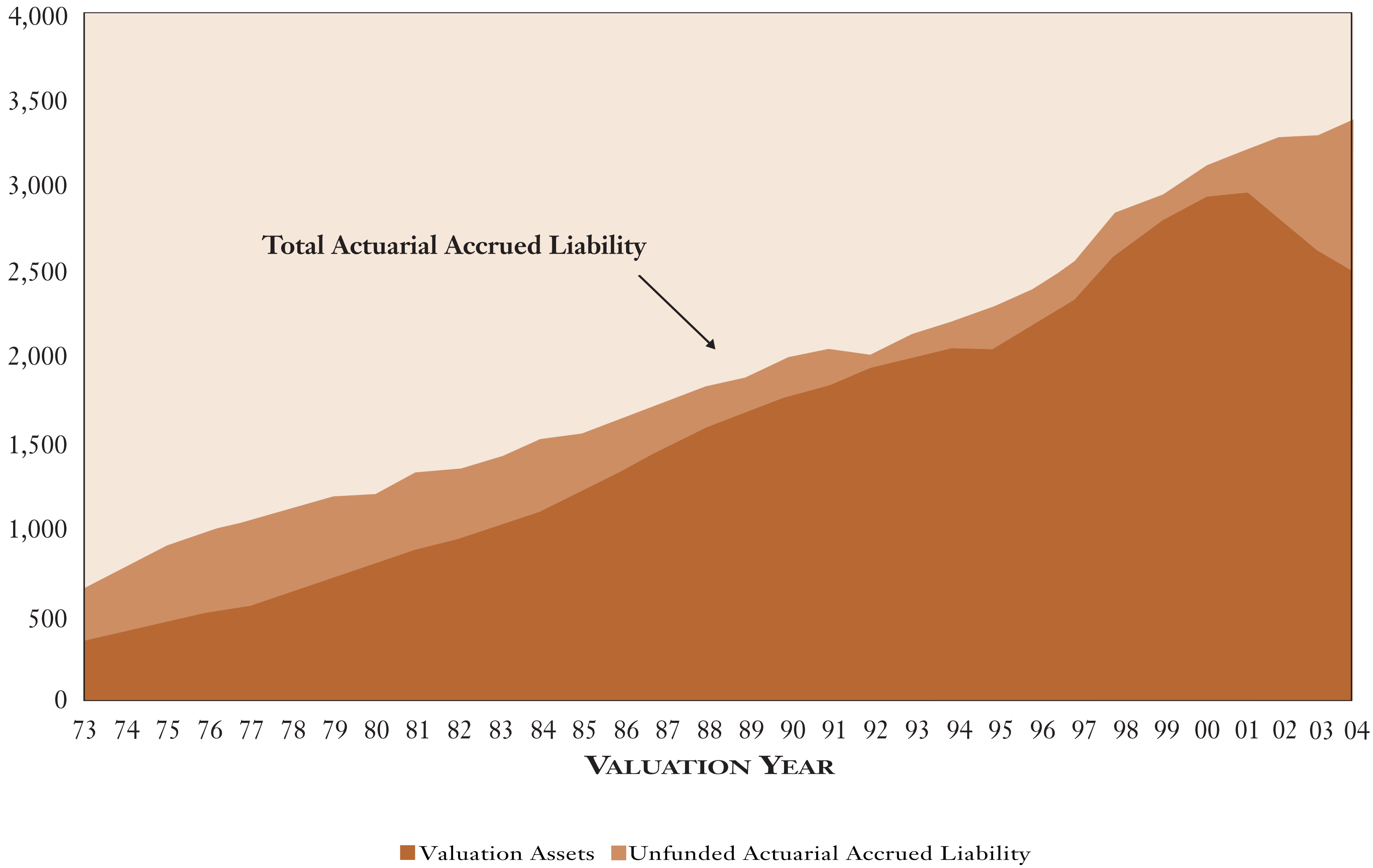
valuation results – comparative statement $ in millions

June 30	Active Payroll Total	Active Payroll Average	% of Active Payroll Contributions For: Normal Cost	UAAL	On time Totals	Factor For Contr. Due	Actuarial Accrued Liabilities: Computed Total	Accrued Assets	Unfunded	Unfunded/ Active Pay
1994	325.4	28,591	8.06	2.73	10.79	0.00	2,192.8	2,041.9	150.9	0.46%
1995	327.6	28,451	8.11	4.80	12.91	0.00	2,275.2	2,043.4	231.8	0.71
1996	360.1	29,729	8.14	3.44	11.58	0.00	2,382.8	2,193.2	189.6	0.53
1997(a)	382.8	30,951	7.91	3.93	11.84	0.00	2,528.5	2,333.4	195.1	0.51
1998(a)#	387.0	31,565	9.30	4.45	13.75	0.00	2,814.9	2,582.1	232.8	0.60
1999#	383.4	31,989	9.29	3.97	13.26	0.00	2,900.4	2,756.6	143.8	0.38
2000	417.2	34,345	9.22	4.15	13.37	0.00	3,077.0	2,902.4	174.6	0.42
2001	439.6	34,497	9.22	5.05	14.27	0.00	3,179.6	2,912.1	267.5	0.61
2002(a)	440.7	34,867	8.74	9.31	18.05	0.00	3,250.5	2,761.2	489.3	1.11
2003	448.6	34,955	8.82	13.90	22.72	0.00	3,270.6	2,537.7	732.9	1.63
2004	**$444.6**	**$37,706**	**8.99%**	**14.24%**	**23.23%**	**0.00%**	**$3,383.9**	**$2,470.2**	**$913.7**	**2.06%**

\# After plan amendments.
(a) After changes in actuarial assumptions.

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.

Retirement System Totals
Assets and Accrued Liabilities



Retirement System Totals
Active Members As Of June 30, 2004

by attained age & years of service

Attained Age	Years of Service to Valuation Date: 0-4	5-9	10-14	15-19	20-24	25-29	30+	Totals: No.	Totals: Valuation Payroll
Under 20	119							119	$1,749,627
20-24	401	22						423	9,008,426
25-29	460	164	8					632	18,390,265
30-34	519	429	67	5				1,020	34,779,505
35-39	441	513	202	177	10			1,343	48,480,428
40-44	469	539	273	496	126	26		1,929	71,919,786
45-49	391	444	235	518	335	335	13	2,271	88,445,469
50-54	260	281	176	375	274	437	113	1,916	78,757,354
55-59	151	192	135	257	214	271	163	1,383	59,406,871
60-64	78	91	52	80	64	102	91	558	24,924,128
65-69	18	31	14	18	6	27	28	142	6,560,202
70-74	9	6	5	4	3	0	12	40	1,539,893
75-79	0	2	0	3	2	0	8	15	634,345
Totals	**3,316**	**2,714**	**1,167**	**1,933**	**1,034**	**1,199**	**428**	**11,791**	**$444,596,299**

Group Averages*:

Age: 44.5 years
Service: 12.5 years
Annual Pay: $37,706

* While not used in the financial computations, the following group averages are computed and shown because of their general interest.

REVISED ASSUMPTIONS AND FUNDING METHODS

Each year as of June 30, the actuarial liabilities of DGRS 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 General 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 findings follows:

RATES OF WITHDRAWALS from service without entitlement to an immediate benefit (other than a separation benefit) were varied but close to 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 slightly higher than assumed rates in early years (ages 25-35) and generally lower than assumed in later years. As with other decrement changes, the recommended rates partially reflect observed experience.

RETIREMENT EXPERIENCE indicated many more retirements than expected for General female members. All other groups had experience close to expected levels. Recommended rates reflect these trends. This change puts upward pressure on contribution rates.

POST-RETIREMENT MORTALITY RATES observed in the study were slightly greater than the present assumed rates. Consequently, it is recommended that mortality rates be increased, but continue to include a margin for future longevity improvement. This change had a small downward effect on contribution rates.

PRE-RETIREMENT MORTALITY experience was inconclusive. Recommended rates are the same as current rates and are approximately 80% of post-retirement mortality rates.

ACTUARIAL COMMENTS CON'T

NON-DUTY DISABILITY rates were found to be lower than expected for the General 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 higher than previously assumed. Recommended rates partially reflect the observed patterns of duty disability over the past 5 years.

PENSION FUNDING POLICY

The computed employer contribution rates based on the Board of Trustees policy of financing unfunded actuarial accrued liabilities over a period of 20 years (per Board resolution dated May 4, 2005).

EXPERIENCE DURING THE PAST YEAR

Investment experience for the year ended June 30, 2004 was very favorable with a market rate of return of 14.8%. However, under the asset valuation method, market gains and losses are spread over a 3-year period and prior years' investment results were much less favorable. Because of the favorable market return, the market value of assets now exceeds the funding value by $51 million. If market returns average 7.9% or more in future years, the excess will ultimately be recognized and provide some contribution rate relief.

HOUSING COMMISSION

Remaining Housing Commission assets and liabilities were combined with the General Division assets and liabilities.

CONTRIBUTION RECEIVABLE

Financial information submitted for the year indicated employer contributions of $7,651,467 million were unpaid as of June 30, 2004.

OVERALL FINANCIAL CONDITION

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