

**CITY OF MANCHESTER
EMPLOYEES' CONTRIBUTORY RETIREMENT SYSTEM**

ANNUAL ACTUARIAL VALUATION
DECEMBER 31, 2005

GRS

Gabriel Roeder Smith & Company



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April 4, 2006

Board of Trustees
City of Manchester Employees'
Contributory Retirement System
Manchester, New Hampshire 03101-1829

Dear Board Members:

The results of the **Annual Actuarial Valuation of the City of Manchester Employees' Contributory Retirement System (MECRS)** are presented in this report. The purpose of the valuation was to measure the System's funding progress and to determine the contribution rate for the fiscal year beginning July 1, 2006.

The date of the valuation was December 31, 2005.

The valuation was based upon information, furnished by the Retirement System, concerning Retirement System benefits, financial transactions, and individual members, terminated members, retirees and beneficiaries. Data was checked for year-to-year consistency but was not otherwise audited.

To the best of our knowledge this report is complete and accurate and was made in accordance with the standards of practice prescribed by the Actuarial Standards Board. The actuarial assumptions used for this valuation were adopted by the Board pursuant to a review of methods and assumptions dated November, 2004.

This report was produced under the supervision of a Member of the American Academy of Actuaries with significant experience in valuing public employee retirement systems.

Respectfully submitted,



Kenneth G. Alberts



Mark Buis, E.A., M.A.A.A.

KGA:MB:clb

SECTION A
Valuation Results



FUNDING OBJECTIVE

The funding objective of the Retirement System is to establish and receive contributions which, when expressed as percents of active member payroll, will remain approximately level from year to year and will accumulate sufficient assets over each member's working lifetime to finance promised benefits throughout retirement.

CONTRIBUTION RATES

The Retirement System is supported by member contributions, City contributions and investment income from Retirement System assets.

Contributions which satisfy the funding objective are determined by the annual actuarial valuation and are sufficient to:

- Cover the actuarial present value of benefits allocated to the current year by the actuarial cost method described in Section C (the normal cost); and
- Finance over a period of future years the actuarial present value of benefits not covered by valuation assets and anticipated future normal costs (unfunded actuarial accrued liability).

The computed pension contribution rate for the fiscal year beginning July 1, 2006 is 10.63% of covered payroll. The details of this contribution rate are shown on page A-7.

In addition, we understand that the Board will begin collecting employer contributions for the post-retirement health insurance program on July 1, 2006 in accordance with the rates developed in our supplemental valuation dated March 16, 2006. This will add 1.41% of payroll to the employer rate, bringing the total contribution rate to 12.04% of payroll for the year beginning July 1, 2006.

The contribution rates are sufficient to finance the employer normal cost and to amortize the unfunded pension actuarial accrued liability (full funding credit) as a level percent-of-payroll over a period of 28 years.

SUMMARY STATEMENT OF SYSTEM RESOURCES AND OBLIGATIONS
DECEMBER 31, 2005

Present Resources and Expected Future Resources

A. Actuarial value of System assets:	
1. Net assets from System financial statements	\$ 115,697,056
2. Funding Value Adjustment	(1,840,803)
3. Valuation assets	113,856,253
B. Present value of expected future employer contributions:	
1. For normal costs	35,482,486
2. For unfunded actuarial accrued liabilities	34,059,413
3. Totals	69,541,899
C. Present value of expected future member contributions:	18,268,560
D. Total Present and Expected Future Resources	\$201,666,712

Actuarial Present Value of Expected Future Benefit Payments

A. To retirees and beneficiaries:	\$ 54,490,827
B. To vested terminated members:	2,957,312
C. To present active members:	
1. Allocated to service rendered prior to valuation date	90,467,528
2. Allocated to service likely to be rendered after valuation date	53,751,045
3. Total	144,218,573
D. Total Actuarial Present Value of Expected Future Benefit Payments	\$201,666,712

**SUMMARY OF CURRENT ASSET INFORMATION
FURNISHED FOR THE VALUATION**

Balance Sheet

Reported Assets - Actuarial Value as of December 31		
	2005	2004
Cash & equivalents	\$ 2,498,654	\$ 852,635
Investments	112,435,371	104,152,554
Receivables	1,514,173	1,684,300
Property, Plant, Equipment	176,560	171,929
Accrued Interest & Dividends	20,096	14,058
Receivable for Add'l Contribution Calculator	7,900	8,300
Payable for Investments Purchased	(407,692)	(35,735)
Accounts Payable	(72,172)	(164,516)
Pension Benefits Payable	(475,834)	(439,082)
Additional Contribution Account	0	(2,118)
Funding Value Adjustment	(1,840,803)	(2,415,560)
Total Valuation Assets	\$113,856,253	\$103,826,765

Revenues and Expenditures

	2005	2004
Funding Value - January 1	\$ 103,826,765	\$ 95,632,745
Revenues		
Employees' contributions	1,837,910	1,657,219
Employer contributions	5,413,826	3,950,981
Recognized Investment income	9,621,850	8,973,758
Total	16,873,586	14,581,958
Expenditures		
Benefit payments	5,295,620	5,009,300
Refund of member contributions	383,771	200,559
Expenses and fees	1,164,707	1,178,079
Total	6,844,098	6,387,938
Funding Value - December 31, 2005	\$113,856,253	\$103,826,765
Rate of return recognized	8.1%	8.1%

DEVELOPMENT OF FUNDING VALUE OF ASSETS

Year Ended December 31:	2004	2005	2006	2007	2008	2009
A. Funding Value Beginning of Year	\$95,632,745	\$103,826,765				
B. Market Value End of Year	106,242,325	115,697,056				
C. Market Value Beginning of Year	95,632,745	106,242,325				
D. Non-Investment Net Cash Flow	402,577	1,572,345				
E. Investment Income						
E1. Market Total: B - C - D	10,207,003	7,882,386				
E2. Amount for Immediate Recognition (7.5%)	7,187,553	7,845,970				
E3. Amount for Phased-In Recognition E1-E2	3,019,450	36,416				
F. Phased-In Recognition of Investment Income						
F1. Current Year: 0.20 x E3	603,890	7,283				
F2. First Prior Year	0	603,890	\$7,283			
F3. Second Prior Year	0	0	603,890	\$7,283		
F4. Third Prior Year	0	0	0	603,890	\$7,283	
F5. Fourth Prior Year	0	0	0	0	603,890	\$7,284
F6. Total Recognized Investment Gain	603,890	611,173	611,173	611,173	611,173	7,284
G. Preliminary Funding Value End of Year: A + D + E2 + F6	103,826,765	113,856,253				
H. Actuarial Value after application of 20% corridor Limit	103,826,765	113,856,253				
I. Difference between Market & Funding Value	2,415,560	1,840,803	1,229,630	618,457	7,284	0
J. Recognized Rate of Return	8.1 %	8.1 %				
K. Market Rate of Return	10.7 %	7.4 %				
L. Ratio of Funding Value to Market Value	97.7 %	98.4 %				

The Funding Value of Assets recognizes assumed investment income (line E2) fully each year. Differences between actual and assumed investment income (line E3) are phased in over a closed 5-year period. During periods when investment performance exceeds the assumed rate, Funding Value of Assets will tend to be less than Market Value. During periods when investment performance is less than the assumed rate, Funding Value of Assets will tend to be greater than Market Value. The Funding Value of Assets is unbiased with respect to Market Value. At any time it may be either greater or less than Market Value. If actual and assumed rates of retirement income are exactly equal for 4 consecutive years, the Funding Value will become equal to Market Value. For the December 31, 2004 valuation, the Funding Value of Assets was reset to the Market Value, as adopted by the Board pursuant to a review of methods and assumptions dated November, 2004.

DEVELOPMENT OF UNFUNDED ACTUARIAL ACCRUED LIABILITY
YEAR ENDED DECEMBER 31, 2005

Present Value of Future Benefits - Retirees	\$ 54,490,827
Present Value of Future Benefits - Deferreds	2,957,312
Present Value of Future Benefits - Actives	144,218,573
Total Present Value of Future Benefits	\$201,666,712
Present Value of Future Normal Cost	53,751,045
Actuarial Accrued Liability	\$147,915,667
Actuarial Value of Assets	113,856,253
Unfunded Actuarial Accrued Liability	\$ 34,059,414
Fuded Ratio	77.0%

DERIVATION OF EXPERIENCE GAIN (LOSS) YEAR ENDED DECEMBER 31, 2005

Actual experience will never (except by coincidence) match exactly with assumed experience. Gains and losses often cancel each other over a period of years, but sizable year-to-year fluctuations are common. Detail on the derivation of the experience gain (loss) is shown below, along with a year-by-year comparative schedule.

(1)	UAAL* at start of year	\$22,520,228
(2)	Total normal cost from last valuation	4,430,748
(3)	Actual contributions (employer & employee)	7,251,736
(4)	Interest accrual: $[(1) + 1/2 ((2) - (3))] \times .075$	1,583,230
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	21,282,470
(6)	Change from 2% COLA assumption phase-in	5,368,777
(7)	Change from ad-hoc COLA increases	1,310,995
(8)	Change from Chapter 159 service upgrade	2,411,404
(9)	Expected UAAL after changes: (5) + (6) + (7) + (8)	30,373,646
(10)	Actual UAAL at end of year	34,059,413
(11)	Gain (loss): (9) - (10)	(3,685,768)
(12)	Gain (loss) as percent of actuarial accrued liabilities at start of year (\$126,346,993)	(2.9)%

* *Unfunded actuarial accrued liabilities.*

Valuation Date December 31	Experience Gain (Loss) As % of Beginning Accrued Liability [#]
1998	Gain
1999	Gain
2000	Gain
2001	Loss
2002	Loss
2003	(4.0)%
2004	0.5 %
2005	(2.9)%

[#]*Magnitude of gain or loss prior to 2003 is not available.*

**CITY'S COMPUTED CONTRIBUTIONS FOR THE
FISCAL YEAR BEGINNING JULY 1, 2006**

Contributions For	Contributions Expressed as % of Active Member Payroll
Total Normal Cost	10.51%
Member Contributions (weighted average)	3.75%
Employer Normal Cost	6.76%
Unfunded Actuarial Accrued Liabilities*	3.87%
Employer Pension Total #	10.63%
Health Contribution**	1.41%
Employer Total	12.04%
 Valuation Payroll	 \$47,233,321
Estimated Contribution Dollars	5,914,367

* Unfunded actuarial accrued liabilities were financed as a level percent of payroll over a period of 28 years.

** Based on supplemental valuation dated March 16, 2006.

The accrued contribution from 1/1/2004 through 6/30/2004 for the City, adjusted with interest, is 4.70% of applicable payroll and is in addition to the amounts shown above.

Note: If a 4.5% ad-hoc COLA is adopted this year, the employer contribution rate would increase to 10.91% of payroll. For each 1% ad-hoc COLA increase, the UAAL will increase by approximately \$545,000 and the employer contribution rate will increase by approximately 0.06% (based on current payroll and a 28-year amortization period). In developing these costs for the ad-hoc COLA increase, it was assumed that the increase would be a one-time permanent increase to all members retired as of 12/31/2005 and the additional liability would be amortized over 28 years. It was also assumed that the increase would be effective on 1/1/2006.

Contribution Rate Reconciliation	% of Payroll
Last Year's Rate	8.72%
Normal Cost Change	0.31
Miscellaneous Changes in Group Demographics	(0.08)
Employer Portion of SB 402 Purchases	0.14
COLA (portion above the assumption)	0.15
Experience Loss	0.42
Rate (before adjusting for phase-in of COLA assumption)	9.66%
Additional 1/4 phase-in	0.97
This Year's Rate	10.63%
401(h) Contribution (for post-retirement health)**	1.41
This Year's Rate	12.04%

** Based on supplemental valuation dated March 16, 2006.

COMMENTS

COMMENT A – RESULTS: The Retirement System is 77.0% funded as of December 31, 2005. The Unfunded Actuarial Accrued Liability of \$34,059,413 is amortized over a 28-year period.

COMMENT B – METHODS AND ASSUMPTIONS: In continuing with assumption changes implemented for the December 31, 2004 valuation, a 2.0% annual compound post-retirement increase assumption is being phased-in to the valuation results over a four-year period.

COMMENT C – EXPERIENCE: Experience during the year ending December 31, 2005 was less favorable than assumed resulting in an experience loss of 2.9% of beginning of year liabilities. Even though there was investment gain due to investment income being greater than assumed (a recognized rate of return of 8.1% compared to an assumed rate of 7.5%), there were greater offsetting factors which resulted in a cumulative loss.

COMMENT D – BENEFIT CHANGES: A 3.5% ad-hoc COLA was granted July 1, 2005 for all retirees and beneficiaries eligible for benefits as of July 1, 2004. This resulted in an increase in accrued liabilities of approximately \$1.3 million.

The adoption of SB402 allowed for members to upgrade their benefit multiplier under Chapter 159 from 1.5% to 2.0% per year of service rendered prior to 1999. Liabilities increased approximately \$2.4 million as a result of members electing to purchase this benefit during 2005. An additional \$1.2 million in member contributions were contributed as a result of these elections.

COMMENT E – RETIREE HEALTH BENEFITS: Post-retirement health care benefits are funded in part by retired members (via co-pays, deductibles, etc.), but mostly by employer contributions to the retirement system that are permitted (up to certain limits) by §401(h) of the U.S. Internal Revenue Code. IRC §401(h) permits a defined benefit plan to provide medical benefits for retired employees if, among other things:

- A separate medical care account is maintained,
- The benefits satisfy non-discrimination rules, and
- The medical benefits, along with any life insurance provided by the plan, are subordinate to the retirement benefits. Benefits are considered subordinate if they do not exceed 25% of the aggregate contributions other than contributions to fund past service liabilities.

COMMENTS

The health care contribution rate was determined to pass the 25% test for the 2006/2007 fiscal year as follows:

Employer Pension Rate (not more than normal cost)	6.76%
Employee Pension Rate	<u>3.75%</u>
Total Pension Rate*	10.51%
Maximum Health Rate (1/3 x Pension Rate)	3.50%
Employee Health Rate	<u>1.25%</u>
Maximum Employer Health Rate	2.25%
Actual Employer Health Rate	1.41%

* *Smaller of actual contribution or projected unit credit normal cost rate.*

Although the IRC §401(h) allows for a much more complicated test, the results of the simplified approach illustrated above indicate that the more complicated test is not warranted.

The actual employer health rate of 1.41% was adopted by the Board subsequent to a supplemental valuation report dated March 16, 2006. Additional details of the development of that rate can be found in that supplemental report. It is currently expected that future valuations of MECRS will include both the pension valuation and the post-retirement health valuation.

COMMENT F – ACCRUED CITY CONTRIBUTION: Reported assets include an accrued City contribution of \$1,205,793 for the period of January 1, 2004 through June 30, 2004. We understand that the City and the Retirement System are discussing how this contribution should be collected. If it is collected over the 2007 fiscal year this will increase the City’s contribution by an additional 4.70% of payroll. We have estimated the City’s payroll to be approximately \$30 million.

CERTIFICATION: We certify that the valuation is complete and accurate and was made in accordance with generally recognized actuarial methods. The actuarial assumptions summarized in Section C are in aggregate a reasonable representation of the past and anticipated future experience of the System.

COMPARATIVE STATEMENT

Valuation Date December 31	Active Members					Retirees & Beneficiaries			Annual Contributions as a Percent of Payroll		
	Number	Ratio to Retired	Valuation Payroll		%	Number	Annual Benefits		Member	Employer	Total
			\$	Average			Increase	\$			
2003	1,316	2.59	\$ 41,998,187	\$ 31,914	1.0%	509	\$ 4,981,710	11.9%	3.75%	8.76%	12.51%
2004#	1,344	2.59	45,027,930	33,503	5.0%	519	5,268,169	11.7%	3.75%	8.72%	12.47%
2005	1,354	2.55	47,233,321	34,884	4.1%	531	5,803,185	12.3%	3.75%	10.63%	14.38%

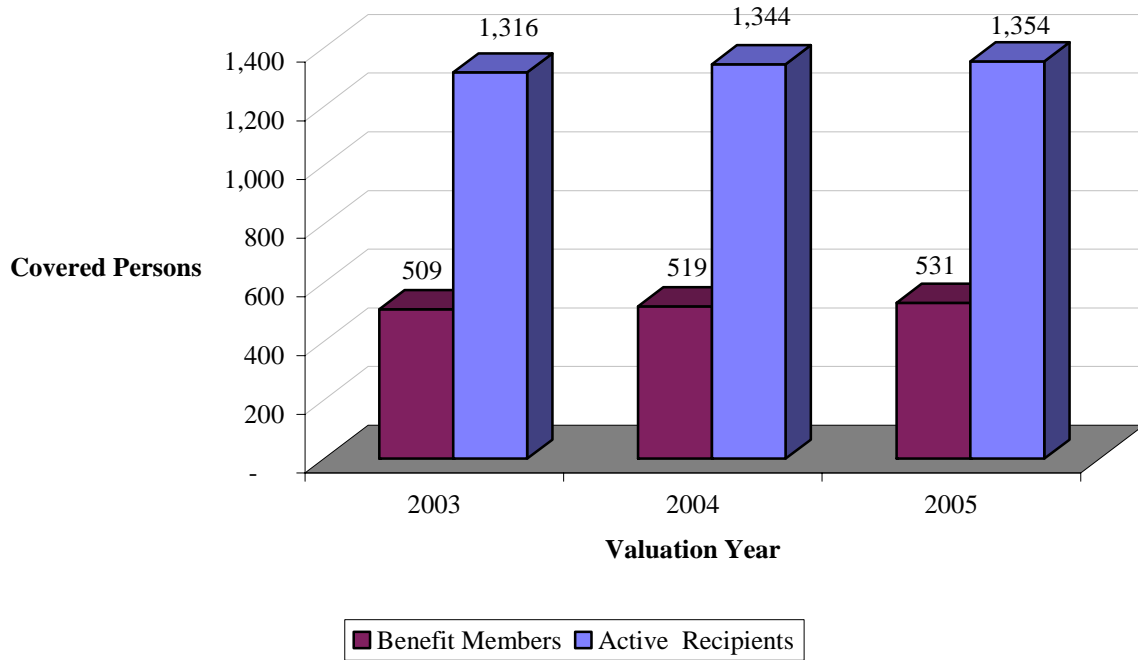
After changes in methods and/or assumptions.

**ACTUARIAL ACCRUED LIABILITIES & VALUATION ASSETS
COMPARATIVE STATEMENT**

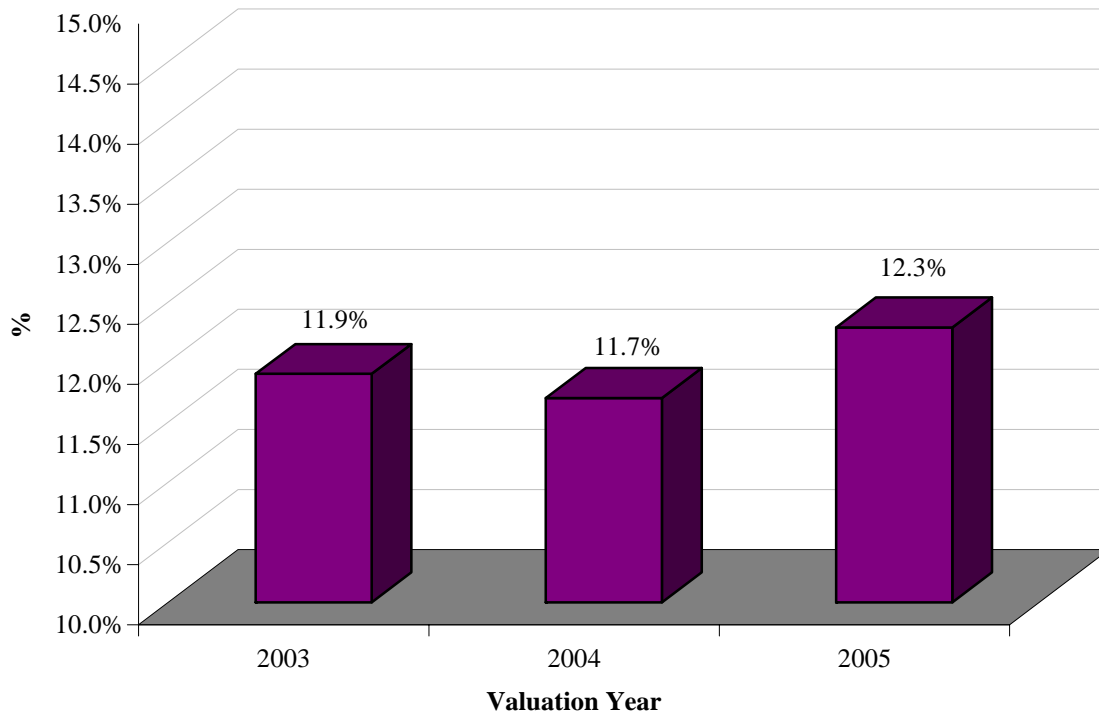
Valuation Date December 31	Actuarial Accrued Liability (AAL)	Valuation Assets	Unfunded Actuarial Accrued Liability (UAAL)	Ratio of Present Assets To AAL	Ratio of UAAL to Valuation Payroll
2003	\$ 116,252,648	\$ 95,297,689	\$ 20,954,959	82.0 %	49.9 %
2004#	126,346,993	103,826,765	22,520,228	82.2 %	50.0 %
2005	147,915,666	113,856,253	34,059,413	77.0 %	72.1 %

After changes in methods and/or assumptions.

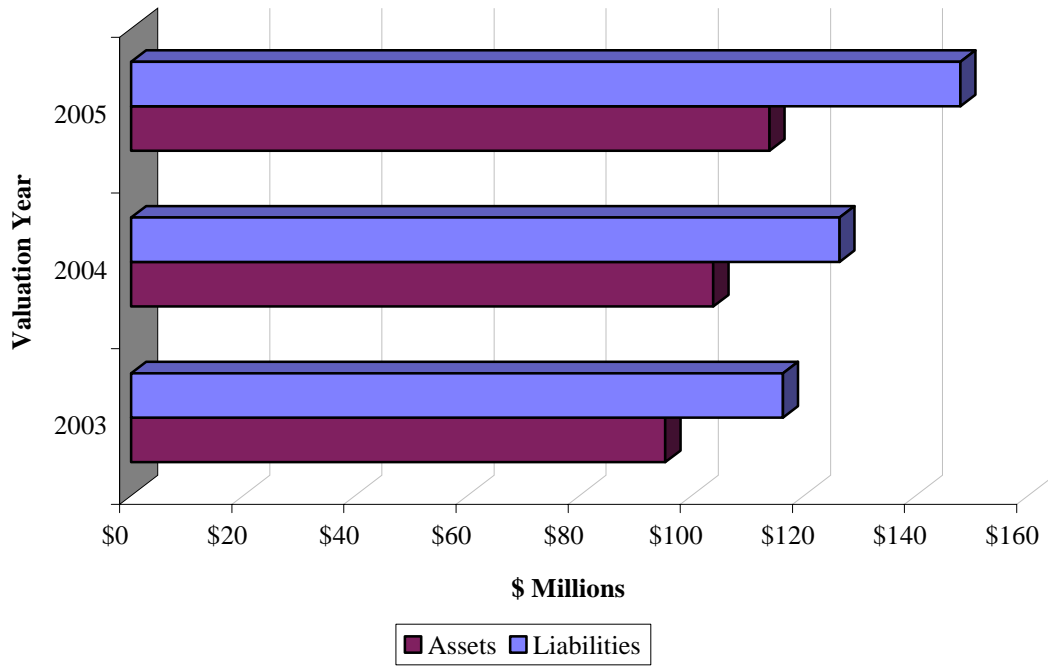
Active Members & Benefit Recipients



Benefits as a Percent of Payroll



Assets & Accrued Liabilities



**SCHEDULE OF CHANGES IN UNFUNDED ACTUARIAL ACCRUED LIABILITY
OTHER THAN ANNUAL GAINS/LOSSES**

**Schedule of Changes in UAAL
Other Than Gains/Losses**

Date Established	Original Amount	Type of Base
01/01/1991	\$ 2,656,461	Initial Unfunded
01/01/1997	32,202	Plan Amendment
01/01/1997	588,165	1996 COLA
01/01/1998	602,888	1997 COLA
01/01/1999	4,750,497	Plan Amendment
01/01/1999	62,532	Assumption Change
01/01/1999	866,215	1998 COLA
01/01/2000	847,614	1999 COLA
01/01/2001	958,172	2000 COLA
01/01/2002	1,047,075	2001 COLA
01/01/2003	1,214,958	2002 COLA
01/01/2003	(3,319,777)	Assumption Change
01/01/2003	6,317,683	Plan Amendment
12/31/2004	231,803	Assumption Change
12/31/2004	1,809,405	2004 COLA
12/31/2005	1,310,995	2005 COLA
12/31/2005	5,368,777	Phase-in of COLA assumption
12/31/2005	1,205,702	Chapter 159 upgrade (employer)

SECTION B

Benefit Provisions and Valuation Data



**SUMMARY OF BENEFIT PROVISIONS
AS OF DECEMBER 31, 2005**

Eligibility

Amount

NORMAL RETIREMENT

Members are eligible to retire at age 60 with at least 5 years of service.

Straight life pension equals 2.0% of 3-year final average earnings (FAE) times service on and after January 1, 1999 *plus* 1.5% of FAE times service before January 1, 1999.

Members with at least 20 years of service at retirement are eligible for a minimum benefit if employed on or before January 1, 1974.

Minimum benefit for eligible members is 50% of FAE.

EARLY RETIREMENT

Members are eligible to retire early if the sum of age and service is at least 80, or at age 55 with at least 20 years of service.

Computed as a normal retirement pension. If the early retirement occurs prior to the member attaining age 60, the benefit is reduced by 1/6 of 1% for each month that the early retirement precedes age 60.

DEFERRED RETIREMENT

Members are eligible to retire with a deferred benefit after attaining at least 5 years of service, provided they do not take a refund of member contributions.

Pension is computed as a normal retirement pension, based on service and FAE on date of termination. Commencement of benefits begins at age 60.

NON-DUTY DISABILITY

Members are eligible upon attainment of 15 years of service.

Pension is computed as a normal retirement pension based on service and FAE as of date of disability.

DUTY DISABILITY

No age or service requirement.

Pension is computed as a normal retirement pension based on service and FAE as of date of disability. Minimum duty disability benefit is 50% of FAE.

**SUMMARY OF BENEFIT PROVISIONS
AS OF DECEMBER 31, 2005**

Eligibility

Amount

ORDINARY DEATH-IN-SERVICE

- | | |
|--|---|
| (1) Any age with less than 5 years of service. | (1) Beneficiary receives member's contributions and accumulated interest, and an additional lump sum equal to one year's salary. |
| (2) Any age with 5 or more years of service. | (2) Beneficiary receives normal or early retirement benefit (depending on eligibility), actuarially reduced as if the member had elected the 100% Joint & Survivor benefit. The combined reduction for the Joint & Survivor reduction and early retirement reduction shall not be more than 50%. If the beneficiary is the spouse, they will receive an additional lump sum equal to one year's salary. |

DUTY DEATH-IN-SERVICE

- | | |
|--|--|
| Death as a result of a work-related accident; not caused by willful neglect of the member. | 50% of FAE payable to the unmarried surviving spouse, child, or children under age 18, or dependent parent. If none of the above-mentioned potential beneficiaries are alive at the time of the member's death, a lump sum is payable to the member's estate in the amount of 100% of base salary plus the member's accumulated contributions (including interest) plus accrued fringe benefits not paid at the time of death. |
|--|--|

MEMBER CONTRIBUTIONS

3.75% of pay for service on and after January 1, 1999. 2.5% of pay for service prior to January 1, 1999. Contributions are credited with 5.0% interest per annum. Members may elect to contribute additional contributions which are accounted for separately. At retirement the additional contribution balance is annuitized to provide and additional benefit, within certain limits.

SUMMARY OF BENEFIT PROVISIONS AS OF DECEMBER 31, 2005

OPTIONAL FORMS OF PAYMENT

In lieu of the straight life benefit, a member may elect an actuarially reduced benefit in one of the following forms:

- 100% Joint & Survivor with pop-up
- 66 2/3 % Joint & Survivor with pop-up
- 50% Joint & Survivor with pop-up
- 10-year Certain & Life Option

The actuarial factors for optional forms of payment are based on the 1983 Group Annuity Mortality Table and 7.5% interest.

SERVICE UPGRADE

Members may elect to purchase an increase in their benefit multiplier for service rendered before 1999 under Chapter 159 (or Senate Bill 402). The cost to the member is ½ of the actuarially determined increase in System costs and results in a benefit based on 2% of FAE for the time purchased.

RETIREES AND BENEFICIARIES COMPARATIVE STATEMENT

Year Ended December 31	Added to Rolls		Removed from Rolls		Rolls End of Year		Average Pension
	No.	Annual Pensions*	No.	Annual Pensions	No.	Annual Pensions	
2003	36	\$320,042	26	\$210,619	509	\$4,981,710	\$ 9,787
2004	26	417,907	16	131,448	519	5,268,169	10,151
2005	31	683,071	19	148,055	531	5,803,185	10,929

* Includes adjustments due to COLA.

RETIREES AND BENEFICIARIES DECEMBER 31, 2005
TABULATED BY TYPE OF PENSIONS BEING PAID

Type of Pensions Being Paid	Number	Annual Pensions
Age and Service Pensions		
Regular Pension - Benefit terminating at death of retiree	279	\$2,498,732
For life of member, but not less than 10 years	54	609,193
100% Joint & Survivor	81	1,072,274
66 2/3% Joint & Survivor	23	359,310
50% Joint & Survivor	27	434,940
Survivor Beneficiary	31	285,162
Survivor of 10-year certain	5	45,732
Total age and service pensions	500	5,305,343
Casualty Pensions		
Duty Disability	25	427,960
Non-Duty Disability	6	69,882
Duty Death - Survivor Benefits	0	0
Non-Duty Death - Survivor Benefits	0	0
Total casualty pensions	31	497,842
Total Pensions Being Paid	531	\$5,803,185

RETIREES AND BENEFICIARIES DECEMBER 31, 2005
TABULATED BY ATTAINED AGES

Attained Age	Age and Service		Casualty		Totals	
	Number	Annual Pensions	Number	Annual Pensions	Number	Annual Pensions
25-29	1	\$ 19,712			1	\$ 19,712
30-34						
35-39						
40-44	1	18,905			1	18,905
45-49	1	4,049	8	\$ 142,197	9	146,246
50-54	9	205,428	3	44,141	12	249,569
55-59	14	300,877	4	80,351	18	381,228
60-64	63	727,896	6	89,242	69	817,138
65-69	85	1,015,057	5	68,826	90	1,083,883
70-74	93	1,016,508	2	29,110	95	1,045,618
75-79	89	811,722	1	15,928	90	827,650
80-84	85	728,891	2	28,047	87	756,938
85-89	47	345,947			47	345,947
90-94	10	77,622			10	77,622
95-100	2	32,729			2	32,729
Totals	500	\$ 5,305,343	31	\$ 497,842	531	\$ 5,803,185

Average Age at Retirement: 62.3 years
Average Age Now: 73.0 years

RETIREES AND BENEFICIARIES DECEMBER 31, 2005
TABULATED BY YEAR OF RETIREMENT

Year of Retirement	Number	Annual Pensions	
		Totals	Average
1974	1	\$ 15,654	\$ 15,654
1976	1	17,949	17,949
1977	2	18,226	9,113
1978	5	45,436	9,087
1979	3	15,290	5,097
1980	4	29,788	7,447
1981	13	131,351	10,104
1982	11	35,243	3,204
1983	11	80,714	7,338
1984	9	51,882	5,765
1985	10	63,132	6,313
1986	12	83,817	6,985
1987	13	164,125	12,625
1988	14	82,596	5,900
1989	18	193,790	10,766
1990	20	278,833	13,942
1991	23	189,850	8,254
1992	18	241,161	13,398
1993	24	288,472	12,020
1994	38	349,116	9,187
1995	27	269,000	9,963
1996	28	337,346	12,048
1997	21	244,496	11,643
1998	16	167,787	10,487
1999	34	516,984	15,205
2000	29	412,285	14,217
2001	23	280,027	12,175
2002	34	325,836	9,583
2003	18	215,464	11,970
2004	21	169,436	8,068
2005	30	488,099	16,270
Totals	531	\$5,803,185	\$ 10,929

Average Age at Retirement: 62.3 years

Average Age Now: 73.0 years

INACTIVE VESTED MEMBERS DECEMBER 31, 2005
TABULATED BY ATTAINED AGE

Attained Age	Number	Estimated Annual Pensions
30-34	1	\$ 3,569
35-39	8	57,799
40-44	3	27,185
45-49	19	126,868
50-54	21	120,294
55-59	27	135,425
Totals	79	\$471,140

Average Age at Termination: 47.1 years
Average Age Now: 51.0 years

ACTIVE MEMBERS ADDED TO AND REMOVED FROM ROLLS

Valuation Date	Number Added During Year		Terminations During Year										Active Members End of Year
			Retirement		Disability		Died-in Service		Withdrawals				
	A	E	A	E	A	E	A	A	Totals				
									A	A	A	E	
2003	166	265	24	N/A	1	N/A	0	N/A	68	172	240	N/A	1,316
2004	162	134	20	64.1	0	0.7	0	2.0	9	105	114	45.3	1,344
2005	151	141	24	47.0	1	1.1	1	1.8	10	105	115	69.5	1,354
5-Year Totals*	479	540	68	111	2	2	1	4	87	382	469	114.8	

A = Actual

E = Expected

** As of December 31, 2005, only three years of information available.*

ACTIVE MEMBERS DECEMBER 31, 2005
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Age								Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	Number	Valuation Payroll
15-19	1							1	\$ 35,426
20-24	47							47	1,026,533
25-29	74	15						89	2,355,417
30-34	47	18	3					68	2,317,872
35-39	60	38	23	9				130	4,563,719
40-44	90	54	19	26	15			204	6,964,752
45-49	68	86	25	31	25	15	1	251	8,594,757
50-54	53	60	41	36	15	29	15	249	9,670,078
55-59	32	32	26	32	29	18	16	185	7,052,443
60-64	12	13	12	9	15	7	11	79	3,397,361
65-69	5	3	1	6	2	3	4	24	818,169
70-74	5	4	2	2	2	4	1	20	321,480
75-79		2	1		2	1	1	7	115,314
Totals	494	325	153	151	105	77	49	1,354	\$47,233,321

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

Age: 46.5 years
Service: 10.2 years
Annual Pay: \$34,884

SECTION C

Valuation Methods and Assumptions



ACTUARIAL COST METHOD

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

- the annual normal cost for each individual active member, payable from the date of employment to the date of retirement, are sufficient to accumulate the value of the member's benefit at the time of retirement;
- each annual normal cost is a constant percentage of the member's year-by-year projected covered pay.

MECRS currently has a tiered benefit structure with the ultimate tier being more costly than the initial tier. The normal cost is computed based on this tiered structure. As a result, the normal cost rate is expected to increase as the members affected by the initial tier are replaced by new members.

Financing of Unfunded Actuarial Accrued Liabilities. Unfunded actuarial accrued liabilities were amortized by level (principal and interest combined) percent of payroll contributions over 28 future years.

Asset Valuation Method. Last year's valuation assets are increased by contributions and reduced by refunds, benefit payments and expenses. An amount equal to the assumed investment return for the year is then added. Differences between actual return on a market value basis and an assumed return are phased in over a five-year period. For the December 31, 2004 valuation, the Funding Value of assets was reset to the Market Value as of January 1, 2004.

ACTUARIAL ASSUMPTIONS USED FOR THE VALUATION

The contribution requirements and benefit values of the System are calculated by applying actuarial assumptions to the benefit provisions and member information furnished, using the actuarial cost method described on the previous page.

The principal areas of financial risk which require assumptions about future experience are:

- long-term rates of investment return to be generated by the assets of the System,
- patterns of pay increases to members,
- rates of mortality among members, retirees and beneficiaries,
- rates of withdrawal of active members,
- rates of disability among members,
- the age patterns of actual retirement.

In a valuation, the monetary effect of each assumption is calculated for as long as a present covered person survives - - - a period of time which can be as long as a century.

Actual experience of the System will not coincide exactly with assumed experience, regardless of the accuracy of the assumptions, or the skill of the actuary and the precision of the many calculations made. Each valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experience. The result is a continual series of adjustments (usually small) to the computed contribution rate.

From time to time it becomes appropriate to modify one or more of the assumptions, to reflect experience trends (but not random year-to-year fluctuations). Assumptions used in this report are based on the January 1, 1999 – December 31, 2003 experience study of the MECRS and were adopted by the Board in November 2004. These assumptions were first used in the December 31, 2004 actuarial valuation.

VALUATION ASSUMPTIONS

The rate of investment return was 7.5 percent per year, compounded annually (net of administrative and investment expenses). This assumption is used to make money payable at one point in time equal in value to a different amount of money payable at another point in time. The assumed real rate of return (the net return in excess of the wage inflation rate) is 3.5%. Experience over the last 5 years has been as follows:

	Year Ended December 31					5-Year* Average
	2005	2004	2003	2002	2001	
1) Nominal rate of return#	8.1 %	8.1 %	6.4 %	N/A	N/A	N/A
2) Increase in CPI	3.4 %	3.3 %	1.9 %	2.4 %	1.6 %	2.5 %
3) Average salary increase (ASI)	4.1 %	5.0 %	1.0 %	N/A	N/A	N/A
4) Real Return						
- Total: CPI (1) - (2)						N/A
- Total: ASI (1) - (3)						N/A
- Assumption**	3.5 %	3.5 %	3.0 %	3.0 %	3.0 %	3.5 %

* A complete 5-year average will not be available until later years.

** 5-year average is based on current assumption.

The nominal rate of return was computed using the approximate formula: $i = I$ divided by $\frac{1}{2}(A+B-I)$, where I is realized investment income net of expenses, A is the beginning of year asset value and B is the end of year asset value.

The rates of salary increase used for individual members are in accordance with the following table. This assumption is used to project a member's current salary to the salaries upon which benefit amounts will be based.

Service	Salary Increase Assumptions For an Individual Member		
	Merit & Seniority	Base (Economic)	Increase Next Year
1	10.00%	4.00%	14.00%
2	8.50%	4.00%	12.50%
3	7.00%	4.00%	11.00%
4	5.50%	4.00%	9.50%
5	4.00%	4.00%	8.00%
6	3.00%	4.00%	7.00%
7	2.50%	4.00%	6.50%
8	2.00%	4.00%	6.00%
9	1.50%	4.00%	5.50%
10	1.00%	4.00%	5.00%
15	0.00%	4.00%	4.00%
20	0.00%	4.00%	4.00%
25	0.00%	4.00%	4.00%
30	0.00%	4.00%	4.00%
35	0.00%	4.00%	4.00%
40	0.00%	4.00%	4.00%
Ref:	105		

If the number of active members remains constant, then the total active member payroll will increase 4.0% annually, the base portion of the individual salary increase assumptions. This increasing payroll was recognized in amortizing unfunded actuarial accrued liabilities.

VALUATION ASSUMPTIONS

The mortality table was the 1994 Group Annuity Mortality Table (100% of male rates, 95% of female rates), set back 1 year for men and 0 years for women.

Sample Attained	Single Life Retirement Values			
	Present Value of \$1 Monthly for Life		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	\$142.36	\$147.83	31.62	35.35
55	134.46	141.34	27.04	30.63
60	124.60	132.91	22.67	26.03
65	113.00	122.75	18.60	21.69
70	100.30	111.01	14.97	17.69
75	86.40	96.97	11.72	13.95
80	71.54	81.46	8.87	10.62
Ref:	261 x 1.00 sb 1	262 x 0.95 sb 0		

This assumption is used to measure the probabilities of members dying before retirement and the probabilities of each benefit payment being made after retirement.

The rates of retirement used to measure the probability of eligible members retiring during the next year were as follows:

Active Members Retiring Next Year	
Ages	% Retiring
50	5%
51	5%
52	5%
53	5%
54	10%
55	10%
56	10%
57	10%
58	10%
59	10%
60	10%
61	10%
62	35%
63	10%
64	10%
65	35%
66	15%
67	15%
68	15%
69	15%
70	100%
Ref.	730

A member was assumed to be eligible for normal retirement after attaining age 60 with 5 or more years of service. A member was assumed to be eligible for early retirement after attaining age 55 with at least 20 years of service or if the sum of age and service is at least 80.

VALUATION ASSUMPTIONS

Rates of separation from active membership are shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members remaining in employment.

Sample Ages	Service	% of Active Members Separating Within Next Year	
		Men	Women
30	0-1	10.00%	14.00%
	1-2	17.00%	14.00%
	2-3	12.00%	14.00%
	3-4	5.00%	7.00%
	4-5	5.00%	7.00%
	5 & Up	2.34%	8.00%
35		2.00%	6.40%
40		1.49%	4.40%
45		1.00%	2.30%
50		1.00%	1.90%
Ref.		231 83	345 465

Rates of disability were divided equally between duty and non-duty disability, and are as follows:

Sample Ages	% of Active Members Becoming Disabled Within Next Year	
	Male	Female
20	0.007%	0.020%
25	0.007%	0.025%
30	0.007%	0.030%
35	0.037%	0.040%
40	0.142%	0.050%
45	0.292%	0.075%
50	0.480%	0.130%
55	0.712%	0.245%
60	1.060%	0.605%
Ref.	37 x 1.00	238 x 0.50

Expense Load. None.

MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

DECEMBER 31, 2005

Marriage Assumption:	100% of males and 100% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses.
Pay Increase Timing:	Beginning of the year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.
Decrement Timing:	Decrements of all types are assumed to occur mid-year.
Eligibility Testing:	Eligibility for benefits is determined based upon the age nearest birthday and exact fractional service on the date the decrement is assumed to occur.
Decrement Relativity:	Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
Decrement Operation:	Disability and withdrawal decrements do not operate after member reaches retirement eligibility.
Normal Form of Benefit:	The assumed normal form of benefit is the straight life form.
Benefit Service:	Exact fractional service as of the valuation date is used to determine the amount of benefit payable.
Incidence of Contributions:	Contributions are assumed to be received continuously throughout the year based upon the actual payroll payable at the time contributions are made.
COLA Assumption:	2.0% compounded annually (assumption phased-in over four years beginning with the December 31, 2004 actuarial valuation).

SECTION D

GASB STATEMENT NO. 25



GASB STATEMENT NO. 25
REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Funding Progress

Actuarial Valuation Date	(a) Actuarial Value of Assets \$Millions	(b) Actuarial Accrued Liability (AAL) Entry Age \$Millions	(b) - (a) Unfunded AAL (UAAL) \$Millions	Funded Ratio (a)/(b)	Covered Payroll (\$ millions) (c)	UAAL as a Percent of Covered Payroll [(b) - (a)] / (c)
12/31/1995	\$ 55.6	\$ 52.6	\$ (3.0)	105.7 %	\$23.3	-
12/31/1996	59.8	56.7	(3.1)	105.5 %	24.4	-
12/31/1997	65.8	61.5	(4.3)	107.0 %	27.0	-
12/31/1998	72.6	71.1	(1.5)	102.1 %	28.4	-
12/31/1999	82.6	79.3	(3.3)	104.1 %	29.6	-
12/31/2000	90.1	87.1	(3.0)	103.4 %	35.4	-
12/31/2001	94.8	96.3	1.5	98.4 %	38.7	3.8 %
12/31/2002	89.7	106.1	16.4	84.5 %	38.9	42.0 %
12/31/2003	95.3	116.3	21.0	81.9 %	42.0	50.0 %
12/31/2004	103.8	126.3	22.5	82.2 %	45.0	50.0 %
12/31/2005	113.9	147.9	34.0	77.0 %	47.2	72.0 %

Schedule of Employer Contributions

Valuation Year Ended December 31	Fiscal Year Ended June 30*	Annual Required Contribution (ARC) as a Percent of Valuation Payroll	Actual Contributions
1996	1998	N/A	\$ 543,835
1997	1999	N/A	514,216
1998	2000	N/A	796,552
1999	2001	N/A	713,685
2000	2002	N/A	1,117,163
2001	2003	N/A	1,794,576
2002	2004	N/A	3,323,023
2003	2005	8.76%	3,950,981
2004	2006	8.72%	N/A
2005	2007	10.63%	N/A

* Effective January 1, 2004, contributions were determined on a percent-of-payroll basis by multiplying the ARC rate by the actual payroll.

GASB STATEMENT NO. 25
REQUIRED SUPPLEMENTARY INFORMATION

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

Valuation date	December 31, 2005
Actuarial cost method	Entry Age Normal
Amortization method	Level percent of payroll
Remaining amortization period	28 years
Asset valuation method	5-year smoothed market
Actuarial assumptions:	
Investment net rate of return*	7.5%
Projected salary increases*	4.0%-14.4%
Cost-of-living adjustments (Year two of 4-year phase-in)	2.0%
*Includes inflation at	4.0%

Membership of the plan consisted of the following at December 31, 2005, the date of the latest actuarial valuation:

Retirees and Beneficiaries receiving benefit	531
Terminated plan members entitled to but not yet receiving benefits	79
Active plan members	<u>1,354</u>
Total	1,964

SECTION E

OPERATION OF THE RETIREMENT SYSTEM



BASIC FINANCIAL OBJECTIVE AND OPERATION OF THE RETIREMENT SYSTEM

Benefit Promises Made Which Must Be Paid For. A retirement system is an orderly means of handing out, keeping track of, and financing contingent pension promises to a group of employees. As each member of the retirement system acquires a unit of service credit they are, in effect, handed an “IOU” which reads: “The Employees Retirement System promises to pay you one unit of retirement benefits, payments in cash commencing when you retire.”

The principal related financial question is: ***When shall the money required to cover the “IOU” be contributed?*** This year, when the benefit of the member’s service is received? Or, some future year when the “IOU” becomes a cash demand?

This Retirement System meets the requirement of funding future benefits during the year by having the following ***Financial Objective: To establish and receive contributions, expressed as percents of active member payroll, which will remain approximately level from year to year*** and will not have to be increased for future generations of taxpayers.

Translated into actuarial terminology, a level percent-of-payroll contribution objective means that the contribution rate must be at least:

Normal Cost (the current value of benefits likely to be paid on account of members’ service being rendered in the current year)

... plus ...

Interest on the Unfunded Actuarial Accrued Liability (the difference between the actuarial accrued liability and current system assets).

If contributions to the Retirement System are less than the preceding amount, the difference, plus investment earnings not realized thereon, will have to be contributed at some later time, or, benefits will have to be reduced, to satisfy the fundamental fiscal equation under which all retirement systems must operate; that is:

$$\mathbf{B = C + I - E}$$

Benefit payments to any group of members and their beneficiaries cannot exceed the sum of:

Contributions received on behalf of the group

... plus ...

Investment earnings on contributions received

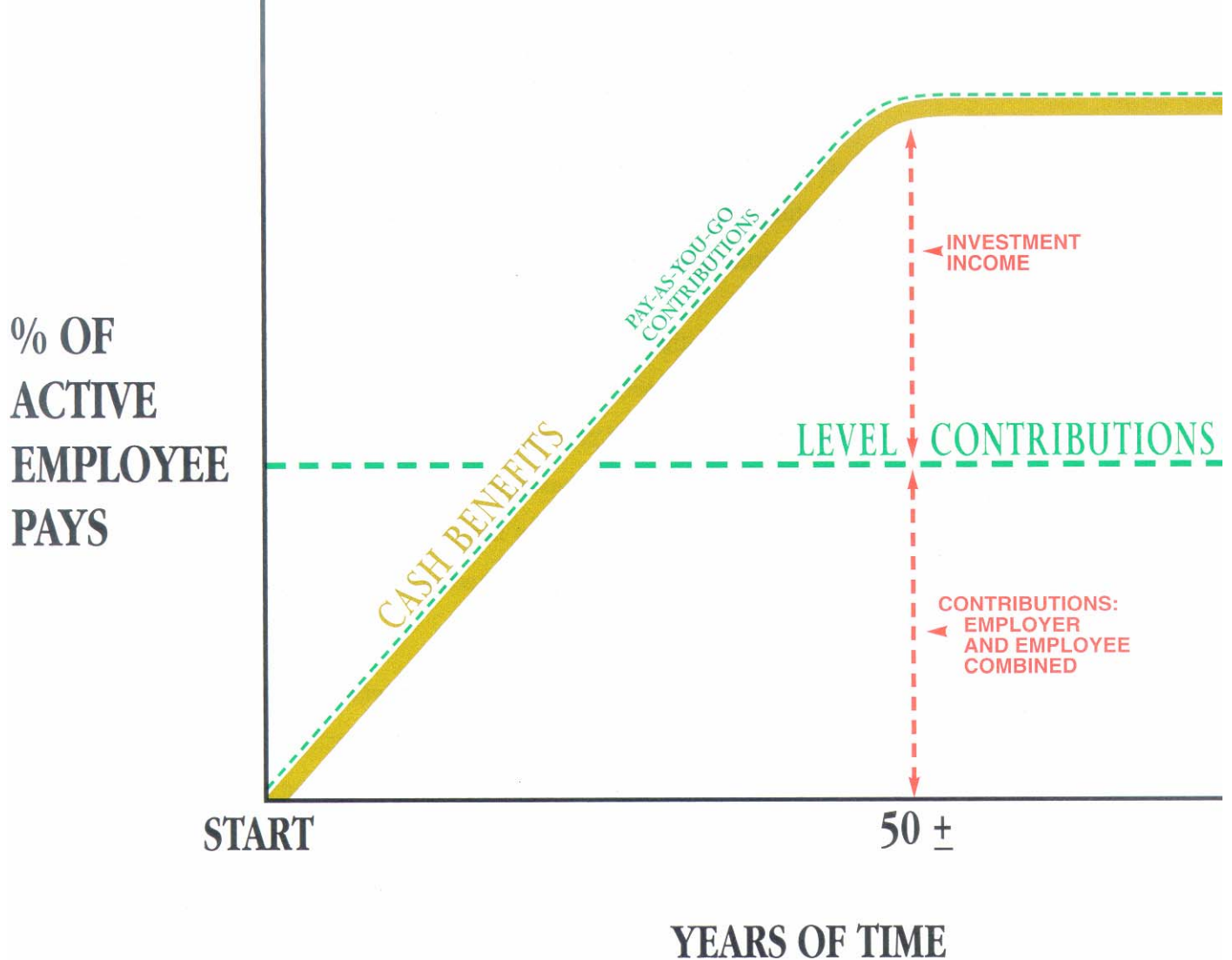
... minus ...

Expenses incurred in the operation of the system.

There are retirement systems designed to defer the bulk of contributions far into the future. They are lured by artificially low present contributions, but the inevitable consequence is a relentlessly increasing contribution rate to a level greatly in excess of the level percent-of-payroll rate.

A by-product of the level percent-of-payroll contribution objective is the accumulation of invested assets for varying periods of time. Investment income becomes a major contributor to the Retirement System, and the amount is directly related to the amount of contributions and investment performance.

Computed Contribution Rate Needed to Finance Benefits. From a given schedule of benefits and from the data furnished, the contribution rate is calculated ***by means of an actuarial valuation*** - the technique of assigning monetary values to the risks assumed in operating a retirement system.



CASH BENEFITS LINE. This relentlessly increasing line is the fundamental reality of retirement plan financing. It happens each time a new benefit is added for future retirements (and happens regardless of the design for contributing for benefits).

LEVEL CONTRIBUTION LINE. Determining the level contribution line requires detailed assumptions concerning a variety of experiences in future decades, including:

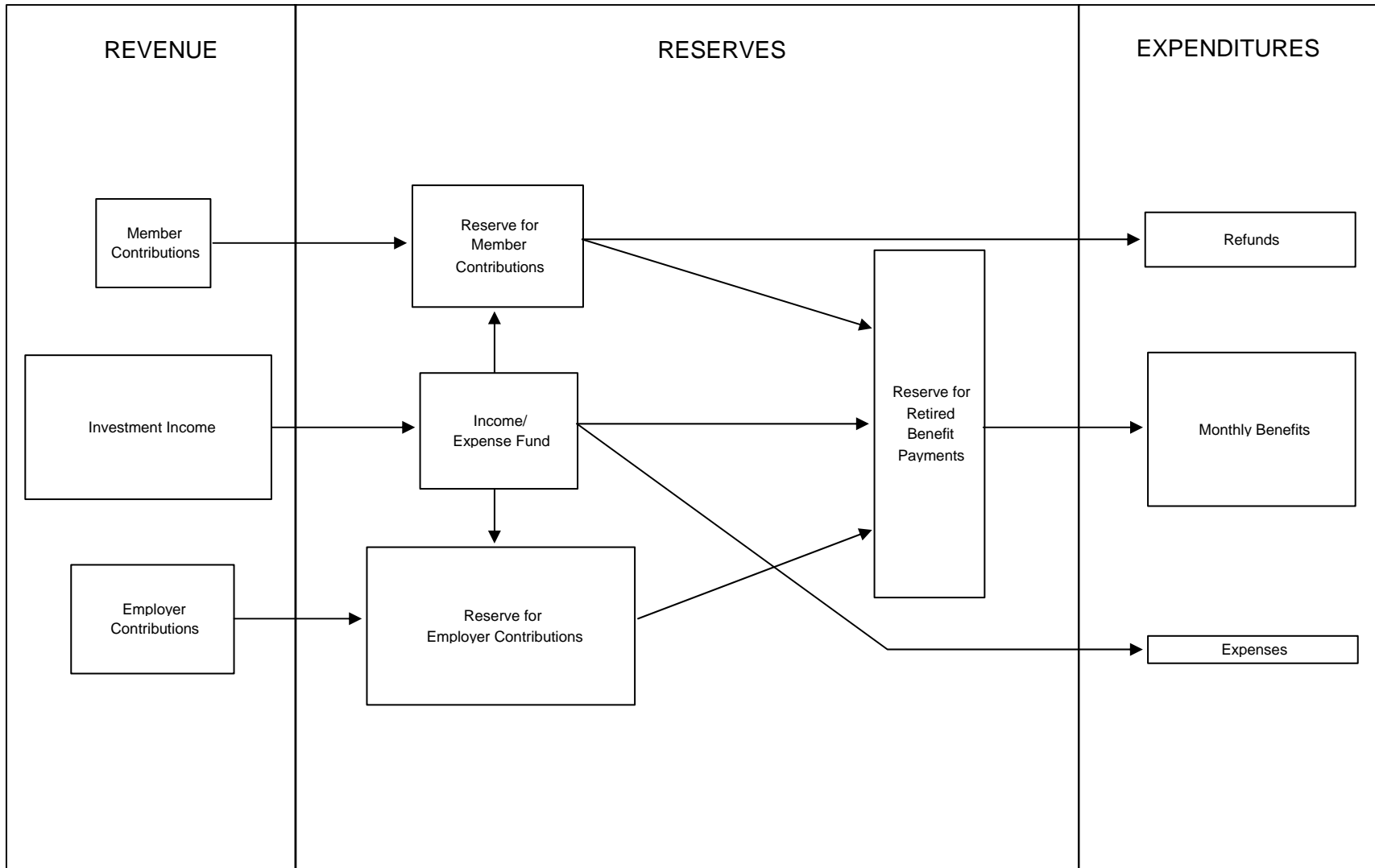
Economic Risk Areas

- Rates of investment return
- Rates of pay increase
- Changes in active member group size

Non-Economic Risk Areas

- Ages at actual retirement
- Rates of mortality
- Rates of withdrawal of active members (turnover)
- Rates of disability

Flow of Money Through the Retirement System



GLOSSARY

Actuarial Accrued Liability. The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as “accrued liability” or “past service liability.”

Accrued Service. The service credited under the plan which was rendered before the date of the actuarial valuation.

Actuarial Assumptions. Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

Actuarial Cost Method. A mathematical budgeting procedure for allocating the dollar amount of the “actuarial present value of future plan benefits” between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the “actuarial funding method.”

Actuarial Equivalent. A single amount or series of amounts of equal value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the plan.

Actuarial Present Value. The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Amortization. Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

Experience Gain (Loss). A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions during the period between two actuarial valuation dates, in accordance with the actuarial cost method being used.

GLOSSARY (CONTINUED)

Normal Cost. The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as “current service cost.” Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

Reserve Account. An account used to indicate that funds have been set aside for a specific purpose and are not generally available for other uses.

Unfunded Actuarial Accrued Liabilities. The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as “unfunded accrued liability.”

Valuation Assets. The value of current plan assets recognized for valuation purposes.



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April 4, 2006

Mr. Gerald Fleury, Executive Director
City of Manchester Employees'
Contributory Retirement System
1045 Elm Street, Suite 403
Manchester, New Hampshire 03101-1829

Dear Mr. Fleury:

Please find enclosed 15 copies of the report of the Actuarial Valuation of the City of Manchester Employees' Contributory Retirement System.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kenneth G. Alberts'.

Kenneth G. Alberts

KGA:clb
Enclosures

cc: Mark Buis