April 2004

Management Report

Retirement System for Employees
Actuarial Valuation - December 31, 2003

The City of Cincinnati

MERCER
Human Resource Consulting

Contents

Introduction

This actuarial summary provides management with current year information and historical data relative to the Retirement System. While the annual actuarial valuation report primarily develops information for the year ending December 31, 2003 and the 2005 contribution rate, this summary also tracks trends over the last 25 years regarding:

1) contributions as a percent of total payroll, and in dollar amounts, including sources of change from the prior year,

2) plan participation, and

3) the funding progress (last 5 years).

This summary also discusses current issues and considerations relative to the Retirement System.

Summary of Valuation Results

Retirement System of The City of Cincinnati

	12/31/2001	12/31/2002	12/31/2003	Percentage (Decrease) Increase 2002/2003
Participants				
Active - Full Time	3,946	3,846	3,710	(3.5)%
Inactive	4,430	4,585	4,522	(1.4)%
Total Payroll	$ 168,338,686	$ 168,286,712	$ 166,037,875	(1.3)%
Total Normal Cost as a Percent of Payroll	20.76%	20.42%	20.82%	
Member Contribution Rate (monthly)	7.32%	7.32%	7.32%	
Developed Employer Normal Cost as a Percent of Payroll	13.44%	13.10%	13.50%	
Total Contribution as a Percent of Payroll	10.32%	18.57%	30.32%	
Member Contribution Rate (monthly)	7.32%	7.32%	7.32%	
Employer Total Contribution as a Percent of Payroll	3.00%(1)	11.25%(1)	23.00%(1)	
Actual Contribution				
Employer	$ 13,374,661	$ 12,755,764	$ 12,619,671	(1.1)%
Members	13,571,803	14,664,620	13,311,001	(9.2)%
Assets				
Market Value	$ 2,352,508,062	$ 1,976,125,182	$ 2,279,721,027	15.4%
Actuarial Value	2,475,933,148	2,371,350,218	2,279,721,027	(3.9)%
Return (Market Value)	(4.50)%	(12.07)%	21.80%	
Return (Actuarial Value)	8.75%	0.16%	8.73%(2)	
Present Value of Benefits(3)	$ 2,524,215,831	$ 2,542,172,918	$ 2,615,230,743	2.9%
Actuarial Accrued Liability(3)	$ 2,318,801,723	$ 2,343,748,368	$ 2,419,503,174	3.2%
Funding Progress(4)	107%	101%	94%	(7.0)%
Value of Accrued Benefits(3)				
Vested	$ 2,065,643,564	$ 2,102,288,315	$ 2,183,365,541	3.9%
Total	2,125,485,187	2,150,090,918	2,251,167,739	4.7%

(1) Contributions are being made at 7.0% for 1999 through 2003 and 11% for 2004.
(2) Determined under the prior actuarial asset method.
(3) The Present Value of Benefits is the present value of all future benefits (based on projected pay and service) current participants are expected to receive. The Actuarial Accrued Liability is the allocation of those benefits that are based on past service. The Value of Accrued Benefits is the present value of benefits earned to date based on current pay and current service.
(4) Ratio of Actuarial Value of Assets to Actuarial Accrued Liability. Assumes total Normal Cost rate remains at 20.82% of pay. See page 16.

Summary of Valuation Results

Change in Contribution Rate

The contribution is determined by taking the normal cost of the plan (the cost of benefits accruing to participants this year) and increasing it for an amortization payment on the unfunded liability (excess of actuarial accrued liability over actuarial value of assets). The contribution amount is then converted to a contribution rate by dividing it by expected payroll.

Thus, the contribution rate depends on three things: the unfunded actuarial liability, the normal cost, and the expected payroll.

The contribution rate prior to reflecting expected employee contributions increased from 18.57% of payroll for 2004 to 30.32% in 2005. This is due primarily to the medical plan experience and the recognition of prior asset losses.

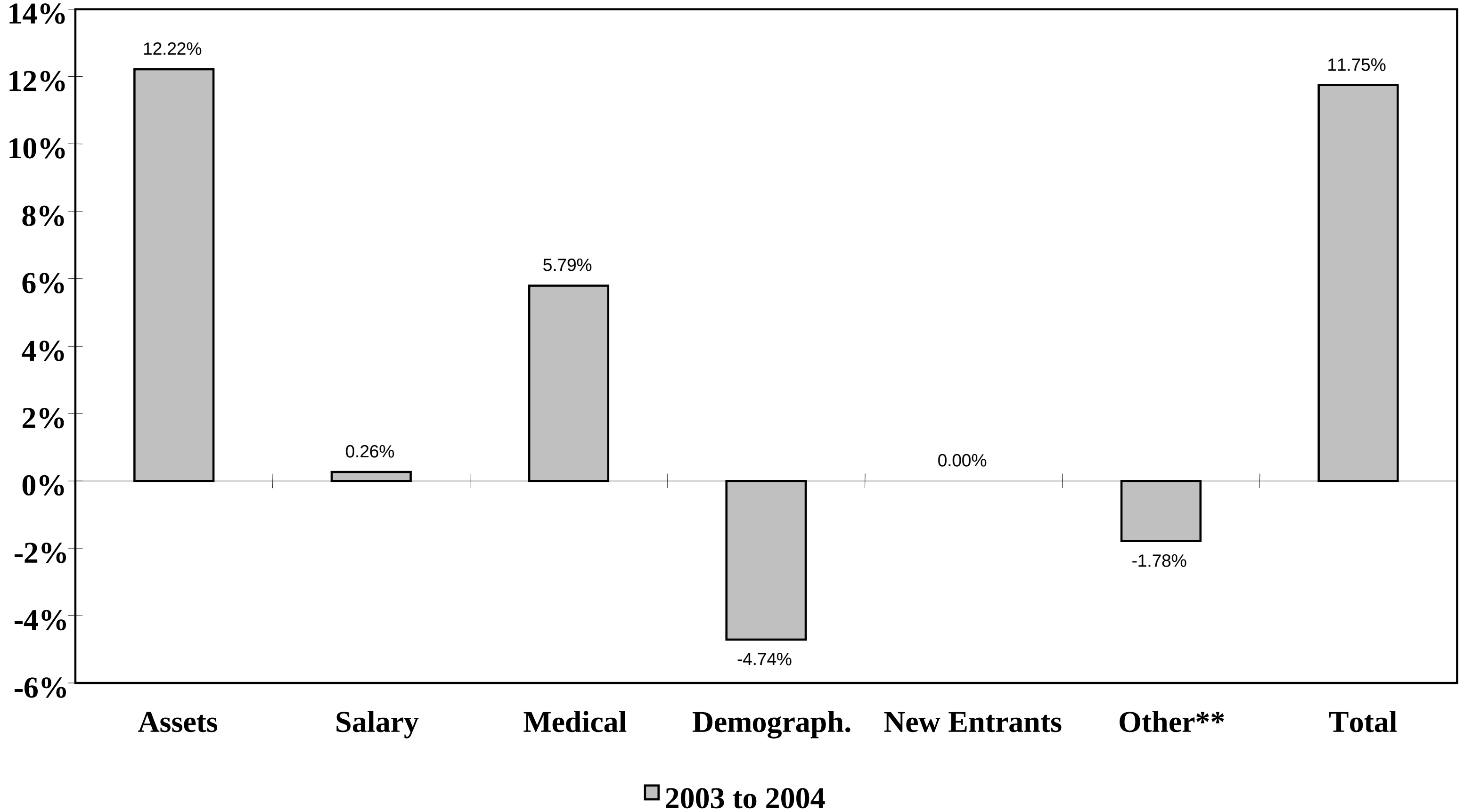
Component	Reduction in Surplus	Change in Normal Cost Rate	Change in Contribution Rate
Asset experience	$(250,923,000)	N/A	(17.70)%
Effect of asset smoothing	165,827,000	N/A	11.70%
Asset method change	263,980,000	N/A	18.22%
Total asset impact	178,884,000	N/A	12.22%
Salary experience	2,869,000	(0.23)%	0.26%
New entrants	1,395,000	0.07%	0.00%
Participant demographics	(31,795,000)	(0.31)%	(4.74)%
Medical claims experience	60,013,000	1.02%	5.16%
Medical assumptions	22,810,000	0.04%	1.61%
Medical participation data	(57,500,000)	(0.08)%	(0.98)%
Total medical impact	25,323,000	0.98%	5.79%
Plan Change *	(16,694,000)	(0.10)%	(1.23)%
Employer Contributions	(7,801,000)	N/A	(0.55)%
Total Change	**152,181,000**	**0.41%**	**11.75%**

* The plan change is the reflection of Medicare Part D (prescription drug coverage).

Gains are shown as negative numbers and losses are shown as positive numbers.

The following exhibit illustrates the changes in the contribution rate.

CHANGE IN CONTRIBUTION RATE*
2003



* Changes in contribution rate before reflecting expected employee contributions

** "Assets" includes the impact of resetting the actuarial value of assets to equal market value; "Medical" includes the impact of the change in assumptions and the use of actual participant data; "Other" reflects the impact of the recognition of Medicare prescription drug coverage.

Summary of Valuation Results

Impact of Asset Returns

The market value of assets at December 31, 2003 was $250 million more than the expected value of assets assuming the 8.75% expected return. The annual return on the market value of assets was 21.8%. This gain partially offsets the asset losses experienced over the preceding three years. However, the plan is still in a net loss position prior to resetting the actuarial value to market value. (Note: The 8.75% before expenses return is approximately equivalent to an 8.25% after expenses return.)

The method for determining the actuarial value of assets delays the recognition of gains and losses by spreading them out over a five-year period. The actuarial value of assets would exceed the market value of assets by $264 million. However, the actuarial value of assets is being reset to the market value of assets as of December 31, 2003. This causes all prior asset gains and losses to be fully recognized. Future gains and losses will still be recognized over a five-year period.

Medical, Dental, and Vision Cost Changes

We have continued to collect medical, dental, and vision claims data in order to monitor actual plan experience. Additionally, we were able to collect more accurate participation data as well as additional information regarding coverage under Medicare Part A. This additional information was used in determining per participant claims costs.

Based upon the updated information, changes were made as follows:

Medical Costs: Actual claims costs per retiree increased by 15% year over year which was more than the expected 11.8% for pre-65 coverage and the expected 11.9% rate for post-65 coverage. The assumptions regarding future increases in medical costs were also increased slightly. The increased liabilities resulting from these factors were partially offset by determining liabilities using more accurate participation data.

Dental Claims: Actual claims were below what we expected. In fact, actual claims were less than claims for active employees. This indicates that retirees are not fully utilizing the benefit coverage. The expected claims rate was reduced from $278 per participant to $206 per participant.

Vision Claims: Again, actual claims were significantly less than what we expected. The expected claims rate was reduced from $40 to $24.

The net effect of these changes was an increase of $25 million in the Actuarial Accrued Liability.

City of Cincinnati
Comparison of Results to Last Year
Revised Actuarial Value of Assets Method
December 31, 2003 Preliminary Results

	12/31/2002		12/31/2003
1. Present Value of Projected Benefits:			
(a) Active Participants	1,080,210,906		1,079,203,473
(b) Participants with Deferred Benefits	22,234,833		38,577,073
(c) Participants Receiving Benefits	1,439,727,179		1,497,450,197
(d) Total	2,542,172,918		2,615,230,743
2. Present Value of Future Employee Contributions	92,470,759		90,861,942
3. Present Value of Future Normal Costs	105,953,792		104,865,627
4. Entry Age Accrued Liability (1)(d) - (2) - (3)	2,343,748,368		2,419,503,174
5. Actuarial Value of Assets	2,371,350,218		2,279,721,027
6. Unfunded/(Surplus) (4) - (5)	(27,601,851)		139,782,147

	Dollar Amount	Percent of Proj. Pay	Dollar Amount	Percent of Proj. Pay
7. Amortization of Unfunded/(Surplus) Over 15 Years (assuming monthly payments)	(3,245,749)	(1.84)%	16,437,224	9.50%
8. Total Normal Cost (assuming monthly payments)	27,567,574	15.67%	27,678,612	15.99%
9. Expenses (assuming monthly payments)	8,369,600	4.76%	8,369,600	4.84%
10. Total Normal Cost (assuming monthly payments)	35,937,174	20.42%	36,048,212	20.83%
11. Employees Expected Contributions to Normal Cost (assuming monthly payments)	12,886,795	7.32%	12,675,012	7.32%
12. Employer Normal Cost (10) - (11)	23,050,379	13.10%	23,373,200	13.50%
13. Employer Total Cost (7) + (12)	19,804,630	11.25%	39,810,424	23.00%

Actuarial Summary

Employer Contributions

The graph on page 8 shows employer contributions over the 25 years up through 2003, expressed as a percent of total payroll.

This exhibit shows a total employer contribution which was generally stable from 1979 to 1983. However, more volatility occurred between 1984 and 1994, with a big drop in contribution rate occurring when the unfunded liability became completely paid off in 1998.

Based on the actuarial method used to value liabilities, the employer contribution is broken into two components as shown on page 9:

- One to reflect the theoretical current cost (normal cost)

- One to handle unfunded past costs or surplus.

Since this is a split based on theoretical formulas, one component absorbs most of the volatility. In the method used prior to 2001, the normal cost absorbs the volatility. As of the end of 1998 the unfunded past costs had been completely amortized, leaving only the normal cost of the plan.

Beginning with the calculation of the contribution requirements for 2002 and later, the normal cost portion of the contribution will be more stable. The volatility associated with gains and losses and the reflection of the funded status will be made in the amortization portion of the costs.

EMPLOYER CONTRIBUTION

AS A PERCENT OF PAYROLL

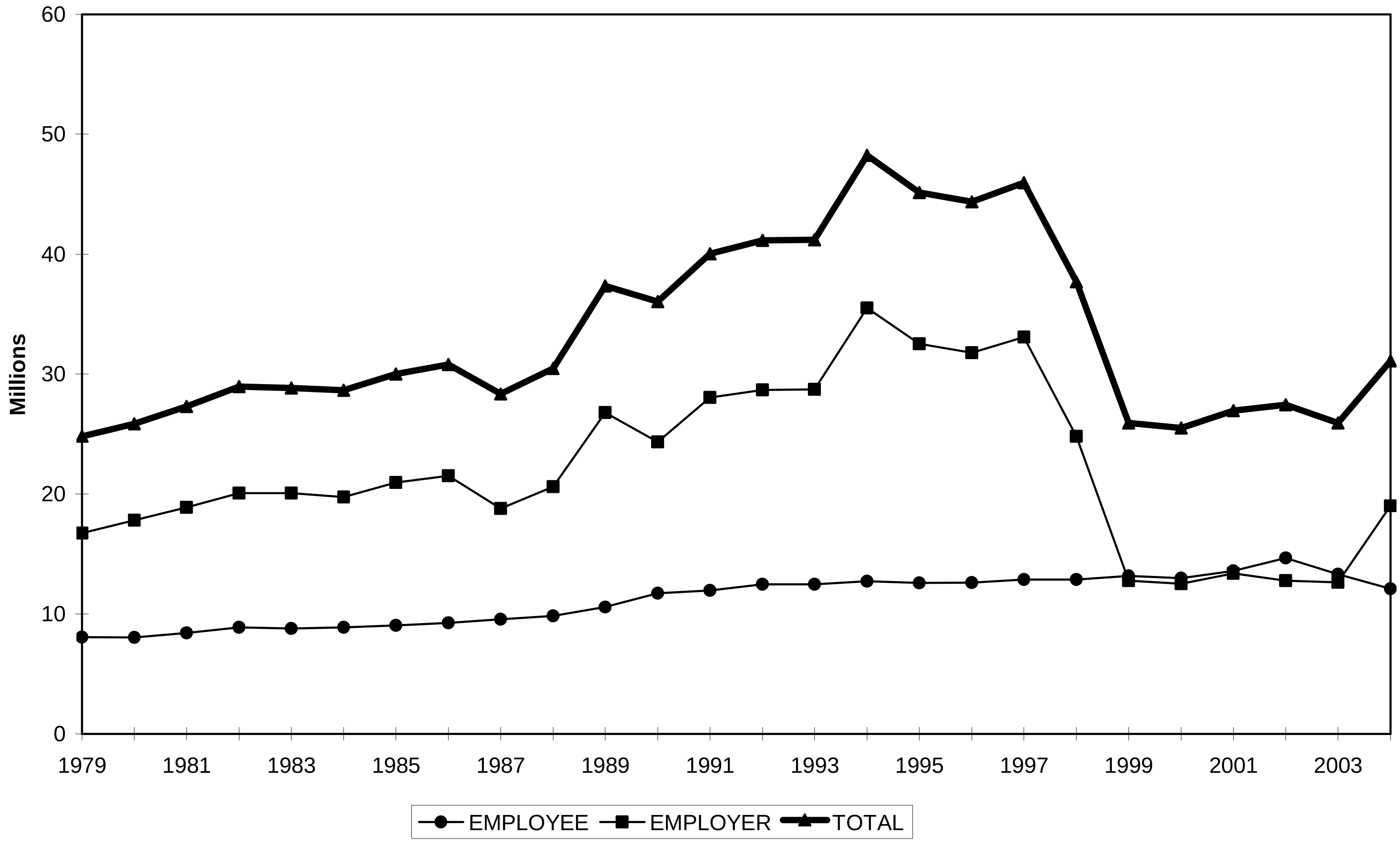
Employer Contributions as a Percent of Payroll

City of Cincinnati Retirement System

Year	Normal Cost	Unfunded Liability	Total
1979	9.44%	5.49%	14.93%
1980	9.74%	5.92%	15.66%
1981	9.95%	5.93%	15.88%
1982	10.24%	5.97%	16.21%
1983	10.24%	5.97%	16.21%
1984	9.78%	5.97%	15.75%
1985	10.26%	6.19%	16.45%
1986	6.42%	7.99%	14.41%
1987	4.55%	9.56%	14.11%
1988	5.08%	9.83%	14.91%
1989	8.29%	9.80%	18.09%
1990	4.02%	10.65%	14.67%
1991	6.61%	10.14%	16.75%
1992	10.94%	10.02%	20.96%*
1993	8.12%	10.93%	19.05%*
1994	7.42%	11.48%	18.90%
1995	13.42%	5.48%	18.90%
1996	5.63%	13.27%	18.90%
1997	(2.30)%	21.20%	18.90%
1998	(8.90)%	22.90%	14.00%
1999	(7.10)%	–	(7.10)%**
2000	(8.30)%	–	(8.30)%**
2001	14.43%	(19.25)%	(4.81)%**
2002	13.44%	(10.44)%	3.00% **
2003	13.10%	(1.85)%	11.25% **
2004	13.50%	9.50%	23.00% ***

* Actual contribution rate was 16.75%
** Actual contribution rate was 7.00%
*** Actual contribution rate is 11.00%

CONTRIBUTIONS



25 YEAR HISTORY

Employee and Employer Contributions

City of Cincinnati Retirement System

Year	Employee Contributions	Employer Contributions	Total
1979	8,075,767	16,731,827	24,807,594
1980	8,041,465	17,805,044	25,846,509
1981	8,424,258	18,873,284	27,297,542
1982	8,886,544	20,069,129	28,955,673
1983	8,778,247	20,064,858	28,843,105
1984	8,894,553	19,749,529	28,644,082
1985	9,035,000	20,962,057	29,997,057
1986	9,263,000	21,524,797	30,787,797
1987	9,539,000	18,792,634	28,331,634
1988	9,839,752	20,615,414	30,455,166
1989	10,568,577	26,784,729	37,353,306
1990	11,729,000	24,330,056	36,059,056
1991	11,968,000	28,060,699	40,028,699
1992	12,469,765	28,670,374	41,140,139
1993	12,471,725	28,717,266	41,188,991
1994	12,718,012	35,516,832	48,234,844
1995	12,591,364	32,532,039	45,123,403
1996	12,604,757	31,761,983	44,366,740
1997	12,869,394	33,072,461	45,941,855
1998	12,881,766	24,815,296	37,697,062
1999	13,163,743	12,768,885	25,932,628
2000	12,991,882	12,520,902	25,512,784
2001	13,571,803	13,374,661	26,946,464
2002	14,664,620	12,755,764	27,420,384
2003	13,311,001	12,619,617	25,930,672
2004	12,100,000	19,000,000	31,100,000

Total Contributions to Plan

The graph on page 10 illustrates all contributions to the retirement system during the past 25 years. Employer and employee contributions are shown separately.

Although contributions increased dramatically through 1994, employer contributions had stayed about twice the amount of employee contributions. During the early 1990s, employer contributions increased to an average of 2.4 times the employee contributions. In 1998, the unfunded accrued liability was fully paid off and required contribution levels decreased. For 1998 the employer rate was set at 14.0%, which is 2.0 times the employee rate. For 1999 to 2003, the employer contribution was reduced to the same level as the employee contributions.

Excess Employer Contributions

Accumulated gains on asset returns actually reduced required contributions to $0 for 1999 to 2002. However, the employers continued to make contributions. Those contributions added to the plan's surplus. The total employer contributions for these four years was $51.5 million. Had these not been made, the required contribution rate would be 3.3% of pay larger than the calculated amount of 23.00% of pay.

Expected 2004 Contribution

Shown below is the expected 2004 contribution level.

Expected Contributions at 11% Rate	$19,000,000

The minimum required contribution rate (based on the December 31, 2002 valuation) is 11.25%. Therefore, the required contribution is slightly higher than the current employer contribution rate of 11%. However, the City contributed 7.00% for 2003 when the required contribution rate was determined to be 3.00%. The 4% excess payment in 2003 would then be applied against the 11.25% contribution for 2004 for a net required contribution of 7.25% of pay in 2004.

Expected 2005 Contribution Rate

For 2005, required contributions will be based on the normal cost adjusted for the amortization of the current unfunded actuarial liability. Based on the December 31, 2003 actuarial valuation, the required contribution rate is 23.00%.

Plan Participants

This section illustrates changes in both active and retired participants over a 25-year period.

The number of retirees and deferred participants has grown from 2,674 at the end of 1979 to 4,522 at December 31, 2003, a 70% increase.

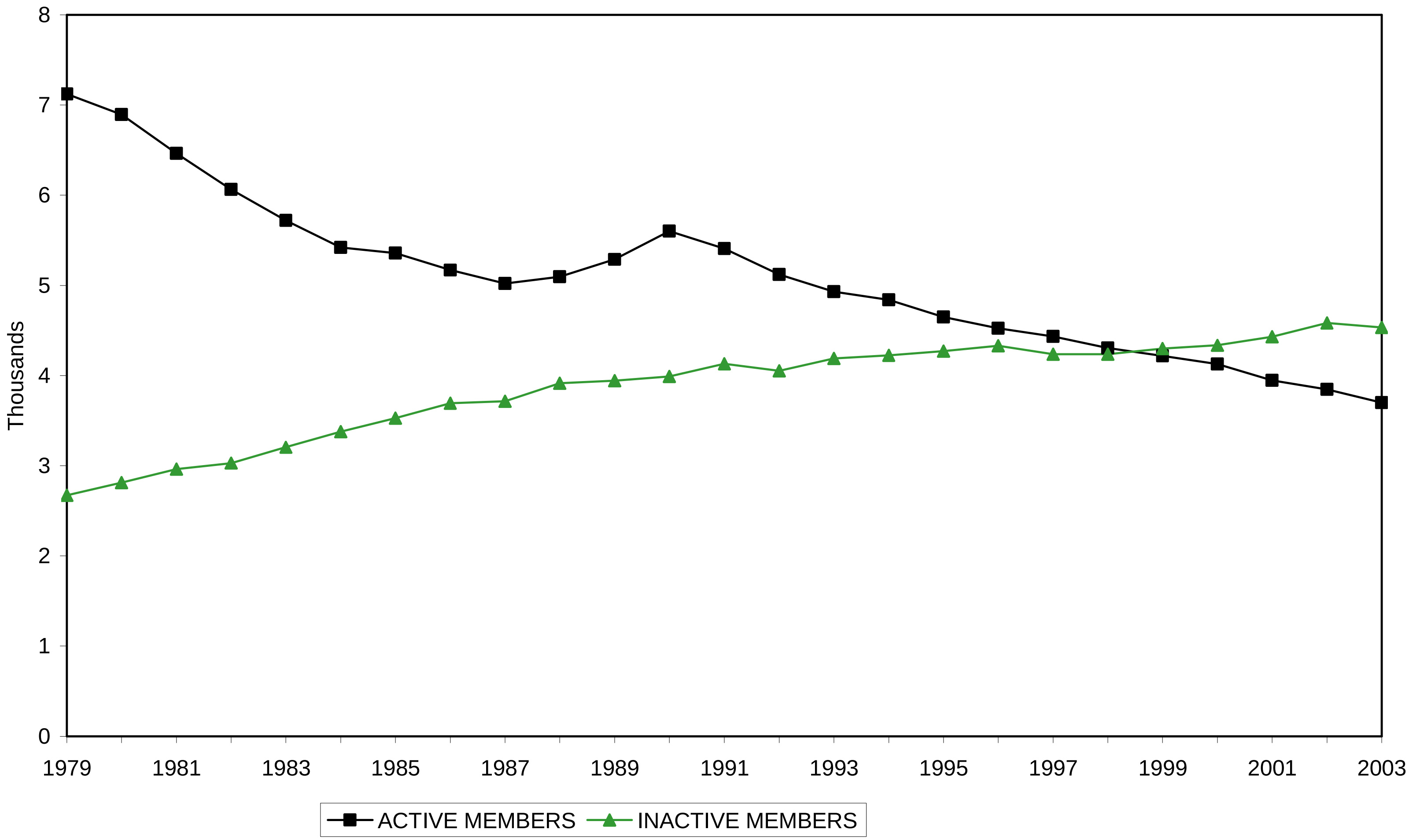
The number of active full-time participants has *decreased* during the 25-year period, beginning at 7,123 in 1979, and declining to 3,710 at December 31, 2003.

During the last 10 years the number of active full-time participants has decreased from 4,930 to 3,710. During this period, the closed group (Hamilton County, University Hospital and University of Cincinnati) decreased from 766 to 170. The City participants decreased from 4,164 to 3,540 during this time period.

The relationship of active to retired employees has changed markedly in 25 years, with 2.7 actives per retiree in 1979, but only .82 actives per retiree in 2003. A significant part of this decline is due to the impact of the closed groups. If City participants are reviewed separately, the ratio of active to retired employees is 1.24. The ratio for the plan as a whole is likely to remain low for the next 10 years or more, and could decrease as Hospital and University participation is gradually eliminated and the number of City participants remains unchanged. If all active participants in the closed groups were to immediately retire, the ratio would drop to .75 active participants per retiree.

While the plan is well funded, a ratio below 1.00 is not a concern, except in one aspect: increased volatility of "required" contributions as a percent of covered payroll. When asset returns exceed expectations or medical experience is better than assumed, the leveraging effect of the retirees produces greater decreases in plan costs. However, this same leveraging will have a negative impact on contribution rates if experience is not as good as assumed.

ACTIVE AND INACTIVE MEMBERS



25 YEAR HISTORY

Active Members and Retirees

City of Cincinnati Retirement System

Year	Full-Time Active Members	Retired and Deferred	Ratio of Active to Retired
1979	7,123	2,674	2.66
1980	6,892	2,813	2.45
1981	6,463	2,960	2.18
1982	6,065	3,031	2.00
1983	5,721	3,206	1.78
1984	5,420	3,378	1.60
1985	5,360	3,527	1.52
1986	5,170	3,694	1.40
1987	5,022	3,715	1.35
1988	5,095	3,913	1.30
1989	5,287	3,944	1.34
1990	5,601	3,992	1.40
1991	5,410	4,131	1.31
1992	5,122	4,053	1.26
1993	4,930	4,189	1.18
1994	4,841	4,226	1.15
1995	4,650	4,270	1.09
1996	4,524	4,329	1.05
1997	4,433	4,236	1.05
1998	4,306	4,236	1.02
1999	4,221	4,300	0.98
2000	4,128	4,334	0.95
2001	3,946	4,430	0.89
2002	3,846	4,585	0.84
2003	3,710	4,522	0.82

Funding Progress

The funding progress of the plan is determined by comparing the entry age normal accrued liability with the actuarial value of assets. This ratio reflects the funding status relative to the level anticipated by the funding method as required to pay for benefits attributable to the past. This method assumes that the normal cost rate remains constant at the current 20.82% of pay, and assumes an ongoing plan with future employee contributions of 7% of pay and employer contributions to meet the balance of the required contributions.

To the extent the funding progress is less than 100%, as is currently the case, contributions greater than normal cost are required in order to catch up to the anticipated level of funding. If the funding progress exceeds 100%, it indicates contributions less than normal cost are required since there is a cushion.

Funding Progress Based on Actuarial Value of Assets

	Pension	Medical	Total
December 31, 1999	113%	131%	118%
December 31, 2000	113%	116%	114%
December 31, 2001	115%	92%	107%
December 31, 2002	102%	99%	101%
December 31, 2003	95%	93%	94%

At December 31, 2003, the ratio of actuarial value of assets to the entry age accrued liability is 94%. This is a decrease from the previous year when the ratio was 101%. The decrease is due primarily to resetting the actuarial value of assets to the market value of assets in order to fully recognize prior asset losses.

If these ratios are calculated using the market value of assets instead of the smoothed actuarial value, the historical funding progress has declined more rapidly.

Funding Progress Based on Market Value of Assets

	Pension	Medical	Total
December 31, 1999	132%	152%	138%
December 31, 2000	122%	126%	124%
December 31, 2001	109%	87%	101%
December 31, 2002	85%	83%	84%
December 31, 2003	95%	93%	94%

Current Issues

1. Actuarial Methods/Plan Changes/Actuarial Assumptions

   The method for determining the actuarial value of assets was changed with last year's valuation. However, the actuarial value is being reset to the market value of assets as of December 31, 2003 in order to fully reflect past asset losses. Future asset gains and losses will be smoothed. The method will reflect asset gains or losses [relative to the expected 8.75% (before expenses) return] over a 5-year period at a rate of 20% per year.

   Prescription drug coverage under Medicare will become available during 2006. Plan sponsors who provide drug coverage under their plans will be able to either receive a subsidy back from Medicare or make Medicare primary. In either case, sponsors will see a reduction in their own liabilities. The City will need to determine how it will reflect this new benefit. We have reflected an estimated minimum reduction in the plan's liability for this valuation.

   Actuarial assumptions regarding future increases in medical trends were changed.

2. Medical Liability

   This year's valuation showed an actuarial loss from this component following last year's gain. We continue to monitor medical claims costs in setting our valuation costs. We were able to improve our data collection for plan participation and coverage levels for retirees. We have also been able to more accurately identify participants with Medicare Part A coverage.

   Medical costs are expected to continue to increase. It would be appropriate to review the trends in the claims experience and identify the key cost increase factors. Decisions can then be made regarding plan provisions and implementation of any appropriate cost control measures. Also, improved monitoring of coordination with Medicare would be appropriate.

   Medical benefits make up 32.3% of the plan's accrued liabilities. Assets allocated to the 401(h) account (the account which pays medical benefits) represent 31.7% of the total trust. The funding progress ratio for medical alone is only 92.5%. IRS regulations allow only 25% of the total contribution to be added to this account. Therefore, the account will eventually become insufficient to pay benefits. The Board should consider whether or not other funding vehicles that have more flexibility for funding are appropriate. One such vehicle is a VEBA (Voluntary Employee Beneficiary Association) trust. This trust would not have the same funding restrictions that the 401(h) account has.

3. Participating Groups (Full-Time Participants)

						Number Eligible to Retire	
	Number	**Total Salary**	**Average Age**	**Average Service**	**Average Salary**	**Unreduced Benefits**	**Reduced Benefits**
City of Cincinnati	3,540	157,224,357	44.9	13.8	44,414	251	70
University Hospital*	43	2,273,188	53.8	28.5	52,865	10	7
University of Cincinnati*	116	5,998,504	53.5	29.2	51,711	39	16
Hamilton County*	11	541,826	54.5	27.2	49,257	3	1
Total	3,710	166,037,875	45.7	14.9	44,754	303	94

* Closed groups.

As of December 31, 2003, there are 170 active participants in the closed groups. They represent 4.6% of the total active population. In the last five years, the closed groups have declined 58% from 401 participants who represented 9.31% of the active population. The closed groups will continue to exert a smaller effect on the plan as their numbers dwindle.

For the City of Cincinnati, 321 participants are currently eligible for retirement–251 of them on an unreduced basis and 70 on a reduced basis. Over the next five years, 614 additional participants will become eligible for retirement–509 on an unreduced basis. (Plus the 70 now eligible to retire on a reduced basis will also be able to retire with an unreduced benefit in five years.) Thus about 23% of the current City participants will be eligible to retire with unreduced benefits prior to January 1, 2009.

4. Contribution Stability

Employer “required” contributions have fluctuated in recent years. The most recent year has seen the following factors influence the contribution rate:

Positive Factors

- Investment Climate
- Demographic Changes
- Medicare Prescription Drug Coverage

Negative Factors

- Recognition of Prior Asset Losses
- Growing Maturity of Plan
- Health Care Costs

The City has stabilized actual contribution rates for some periods by choosing fixed contribution rates other than those actuarially determined. As long as contributions are actuarially balanced over the long term, this is an acceptable process.

Due primarily to the recognition of past asset losses, the City contribution rate increased significantly to 23.00% of pay. Assuming all future actuarial assumptions are met, this level of contributions would continue for 15 years until the unfunded actuarial accrued liability is fully funded. This contribution level is larger than current City budget levels for the pension plan. If contributions are less than the required contribution rate, the unfunded actuarial accrued liability will increase. In order to avoid the increase in the unfunded liability, either benefits must be reduced (medical or pension) or contribution amounts must be increased (employer and/or employee).

5. Investment Return Assumption

Current market returns continue to fall below the expected investment return assumption of 8.75% (before expenses). This is approximately equivalent to 8.25% after expenses.

The Board has undertaken an asset/liability modeling study to examine the appropriate allocation of assets for the funding of the pension and medical benefits of the plan. This study takes into account the long-term nature of the plan. Once this study is complete, the expected investment return assumption will be reviewed in light of those results and, if warranted, changed.

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