April 2003

# Management Report

## Retirement System for Employees
## Actuarial Valuation - December 31, 2002

# 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, 2002 and the 2004 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

| | 12/31/2000 | 12/31/2001 | 12/31/2002 | Percentage (Decrease) Increase 2001/2002 |
|---|---|---|---|---|
| Participants | | | | |
| Active - Full Time | 4,128 | 3,946 | 3,846 | (2.5)% |
| Inactive | 4,334 | 4,430 | 4,585 | 3.5% |
| Total Payroll | $ 171,555,002 | $ 168,338,686 | $ 168,286,712 | (2.1)% |
| Total Normal Cost as a Percent of Payroll | 21.75% | 20.76% | 20.42% | |
| Member Contribution Rate (monthly) | 7.32% | 7.32% | 7.32% | |
| Developed Employer Normal Cost as a Percent of Payroll | 14.43% | 13.44% | 13.10% | |
| Total Contribution as a Percent of Payroll | 2.51% | 10.32% | 18.57% | |
| Member Contribution Rate (monthly) | 7.32% | 7.32% | 7.32% | |
| Employer Total Contribution as a Percent of Payroll | (4.81)%[2] | 3.00%[2] | 11.25%[2] | |
| Actual Contribution | | | | |
| Employer | $ 12,520,902 | $ 13,374,661 | $ 12,755,764 | (4.6)% |
| Members | 12,991,882 | 13,571,803 | 14,664,620 | 8.1% |
| Assets | | | | |
| Market Value | $ 2,560,804,597 | $ 2,352,508,062 | $ 1,976,125,182 | (16.0)% |
| Actuarial Value | 2,363,697,947 | 2,475,933,148 | 2,371,350,218 | (4.2)% |
| Return (Market Value) | 0.60% | (4.50)% | (12.07)% | |
| Return (Actuarial Value) | 8.75% | 8.75% | 0.16% | |
| Present Value of Benefits[3] | $ 2,330,890,618 | $ 2,524,215,831 | $ 2,542,172,918 | 0.8% |
| Actuarial Accrued Liability[3] | $ 2,071,566,514 | $ 2,318,801,723 | $ 2,343,748,368 | 1.1% |
| Funding Progress[4] | 114% | 107% | 101% | (6.0)% |
| Value of Accrued Benefits[3] | | | | |
| Vested | $ 1,736,364,291 | $ 2,065,643,564 | $ 2,102,288,315 | 1.8% |
| Total | 1,793,830,533 | 2,125,485,187 | 2,150,090,918 | 1.0% |

(1) Determined under the prior actuarial funding method and is not directly comparable to later years.

(2) Contributions are being made at 7.0% for 1999 through 2003.

(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 portion of those benefits that have already been earned by virtue of 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 20.42% of pay. See page 16.

## Summary of Valuation Results

### Change in Contribution Rate

While the plan is fully funded, the contribution is determined by taking the normal cost of the plan (the cost of benefits accruing to participants this year) and reducing it for an amortization payment on the surplus (excess of actuarial value of assets over actuarial accrued liability). 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 surplus, the normal cost, and the expected payroll.

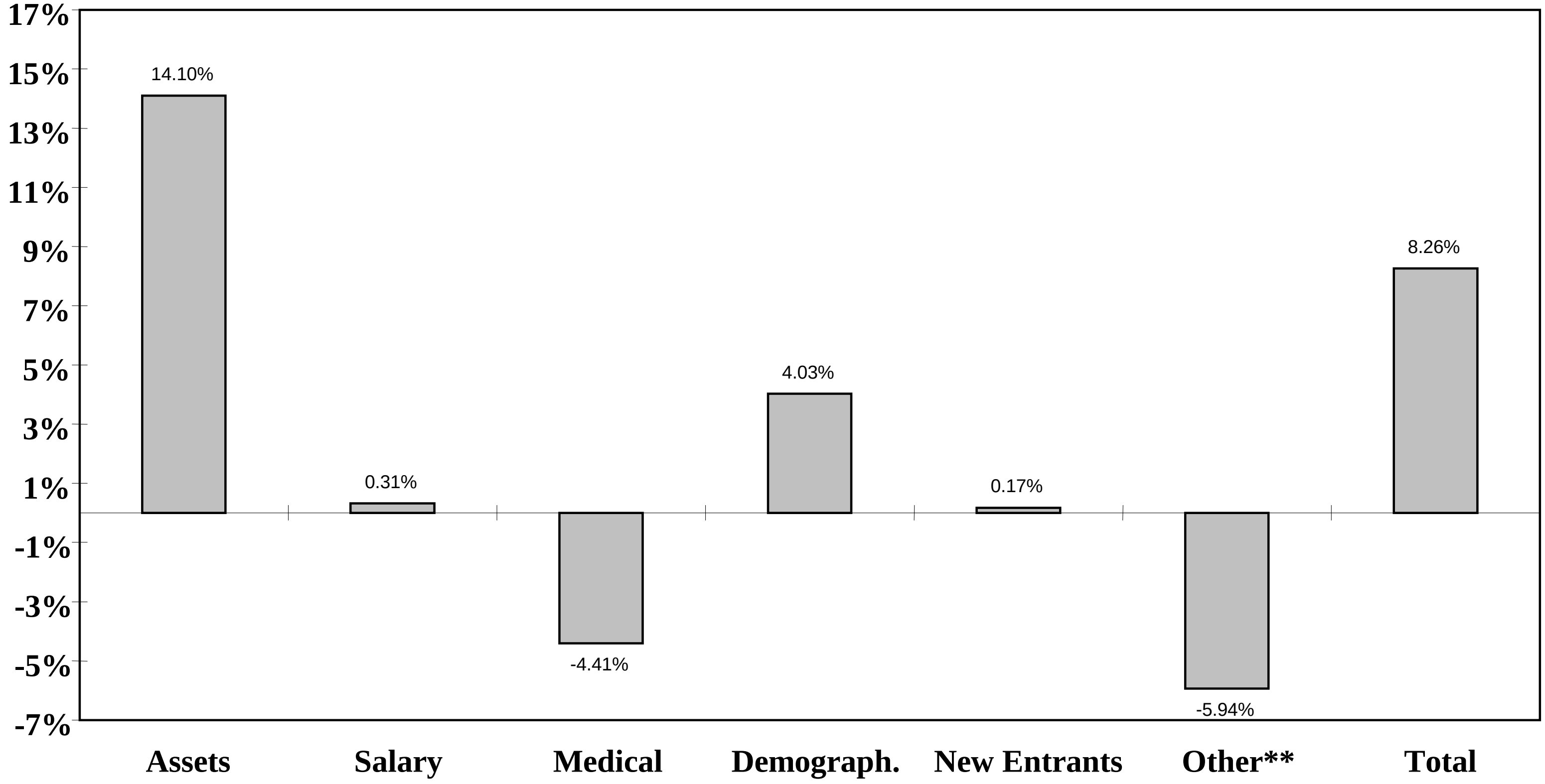
The contribution rate prior to reflecting expected employee contributions increased from 10.32% of payroll for 2003 to 18.57% in 2004. This is due primarily to the asset experience.

| Component | Reduction in Surplus | Change in Normal Cost Rate | Change in Contribution Rate |
|---|---|---|---|
| Asset experience | $207,891,000 | (0.06)% | 14.1% |
| Salary experience | 6,466,000 | (0.08)% | 0.31% |
| New entrants | 1,694,000 | 0.10% | 0.17% |
| Participant demographics | 48,453,000 | 0.37% | 4.03% |
| Medical Experience | (59,884,000) | (0.36)% | (4.41)% |
| Plan change | 480,000 | 0.02% | 0.05% |
| Assumption Changes | (71,417,000) | (0.33)% | (5.09)% |
| Employer Contributions | (13,243,000) | 0.00% | (0.90)% |
| **Total Change** | **120,440,000** | **(0.34)%** | **8.26%** |

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

The following exhibit illustrates the changes in the contribution rate last year.

# CHANGE IN CONTRIBUTION RATE*




* Changes in contribution rate before reflecting expected employee contributions

** Other includes 2002 changes in plan provisions, actuarial assumptions, asset valuation method, and additional employer contributions.

## Summary of Valuation Results

### Impact of Asset Returns

The market value of assets at December 31, 2002 were $479 million less than the expected value of assets assuming the 8.75% expected return. This loss combined with losses of $338 million last year and $210 million the prior year means that future contributions (or asset gains) of over $1 billion is needed to replace these losses.

The method for determining the actuarial value of assets delays the recognition of these losses by spreading them out over a five year period. Currently the actuarial value of assets exceeds the market value of assets by $400 million. Over the next four years, this $400 million will be recognized in determining the total contribution for the plan. The total contribution (employee and employer) will increase from 18.57% of pay to approximately 45% of pay, an increase of about $45 to $50 million dollars assuming the 8.75% (before expenses) return is met and no other changes are made (see Appendix). (Note: The 8.75% before expenses return is approximately equivalent to an 8.25% after expenses return.)

### Medical, Dental, and Vision Claims Cost Changes

We have continued to collect medical, dental, and vision claims data in order to monitor actual plan experience.

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

<u>Medical Costs</u>: Actual claims costs increased less than the expected 12%. Increases were between 5% and 10% depending upon the plan coverage and whether or not eligible for Medicare. This generated some cost savings over what was expected.

<u>Dental Claims</u>: Actual claims were significantly 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 $363 per participant to $278 per participant.

<u>Vision Claims</u>: Again, actual claims were significantly less than what we expected. The expected claims rate was reduced from $75 to $40.

The net effect of the expected claims cost changes was an decrease of $59.9 million in the Actuarial Accrued Liability.

## Summary of Valuation Results *(continued)*

City of Cincinnati
Comparison of Results to Last Year
December 31, 2002 Results

| | | | 12/31/2001 | | 12/31/2002 | |
|---|---|---|---|---|---|---|
| 1. | Present Value of Projected Benefits: | | | | | |
| | (a) | Active Participants | 1,124,883,847 | | 1,080,210,906 | |
| | (b) | Participants with Deferred Benefits | 24,677,288 | | 22,234,833 | |
| | (c) | Participants Receiving Benefits | 1,374,654,696 | | 1,439,727,179 | |
| | (d) | Total | 2,524,215,831 | | 2,542,172,918 | |
| 2. | Present Value of Future Employee Contributions | | 95,003,353 | | 92,470,759 | |
| 3. | Present Value of Future Normal Costs | | 110,410,755 | | 105,953,792 | |
| 4. | Entry Age Accrued Liability (1)(d) - (2) - (3) | | 2,318,801,723 | | 2,343,748,368 | |
| 5. | Actuarial Value of Assets | | 2,475,933,148 | | 2,371,350,218 | |
| 6. | Unfunded/(Surplus) (4) - (5) | | (157,131,425) | | (27,601,851) | |
| | | | Dollar Amount | Percent of Proj. Pay | Dollar Amount | Percent of Proj. Pay |
| 7. | Amortization of Unfunded/(Surplus) Over 15 Years (at the beginning of the year) | | (17,661,399) | -9.98% | (3,102,418) | -1.76% |
| 8. | Amortization of Unfunded/(Surplus) Over 15 Years (assuming monthly payments) | | (18,477,356) | -10.44% | (3,245,750) | -1.84% |
| 9. | Total Normal Cost (at the beginning of the year) | | 26,524,808 | 14.98% | 26,350,195 | 14.97% |
| 10. | Expenses | | 8,600,000 | 4.82% | 8,000,000 | 4.55% |
| 11. | Total Normal Cost (assuming monthly payments) | | 36,747,574 | 20.76% | 35,937,174 | 20.42% |
| 12. | Employees Expected Contributions to Normal Cost (assuming monthly payments) | | 12,963,164 | 7.32% | 12,886,795 | 7.32% |
| 13. | Employer Normal Cost (11) - (12) | | 23,784,410 | 13.44% | 23,050,379 | 13.10% |
| 14. | Employer Total Cost (8) + (13) | | 5,307,054 | 3.00% | 19,804,629 | 11.25% |

## Actuarial Summary

### Employer Contributions

The graph on page 8 shows employer contributions over the 25 years preceding 2002, expressed as a percent of total payroll.

This exhibit shows a total employer contribution which was generally stable from 1978 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:

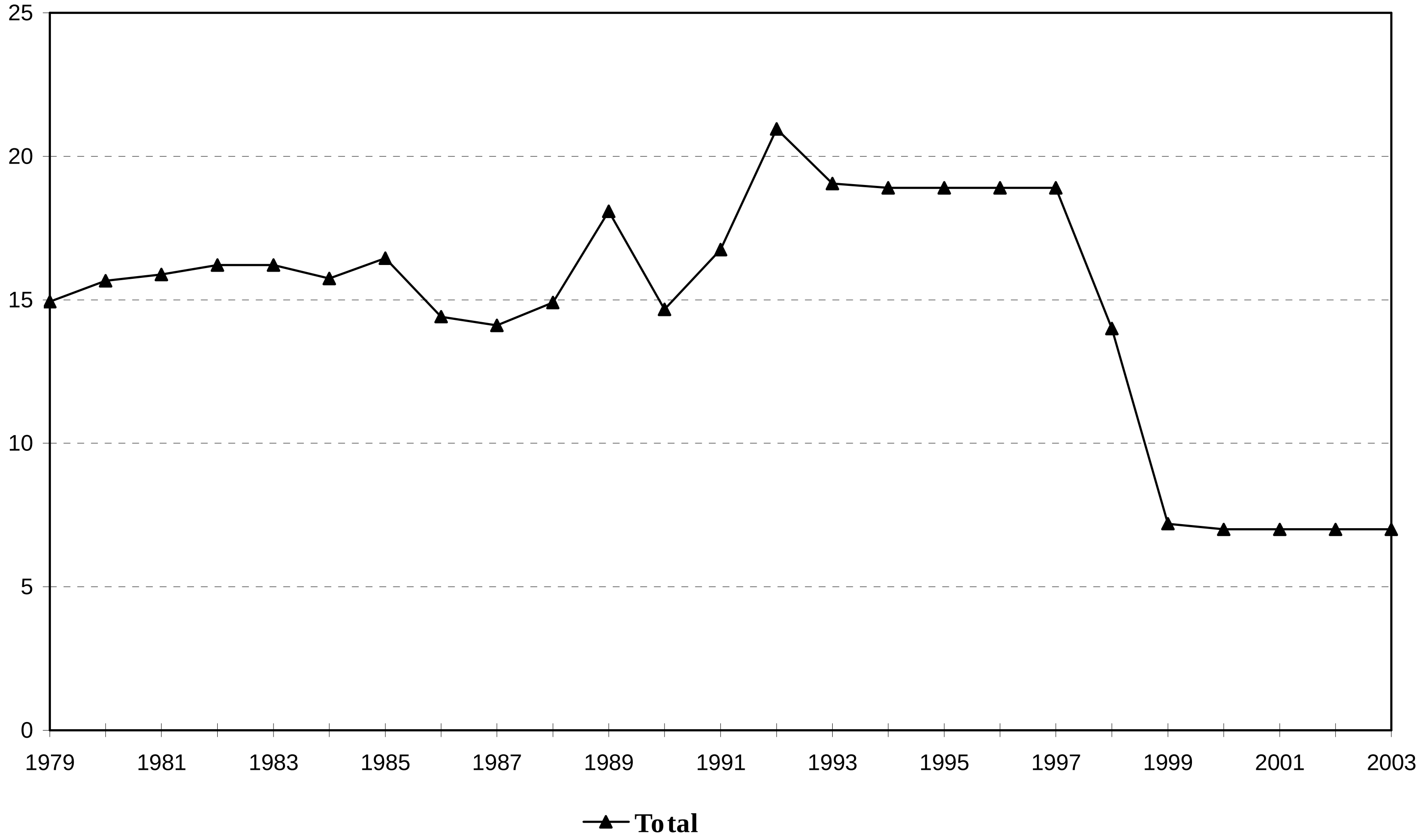
- One to reflect the theoretical current cost (normal cost)
- One to handle unfunded past costs or surplus.

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




25 YEAR HISTORY

## Actuarial Summary *(continued)*

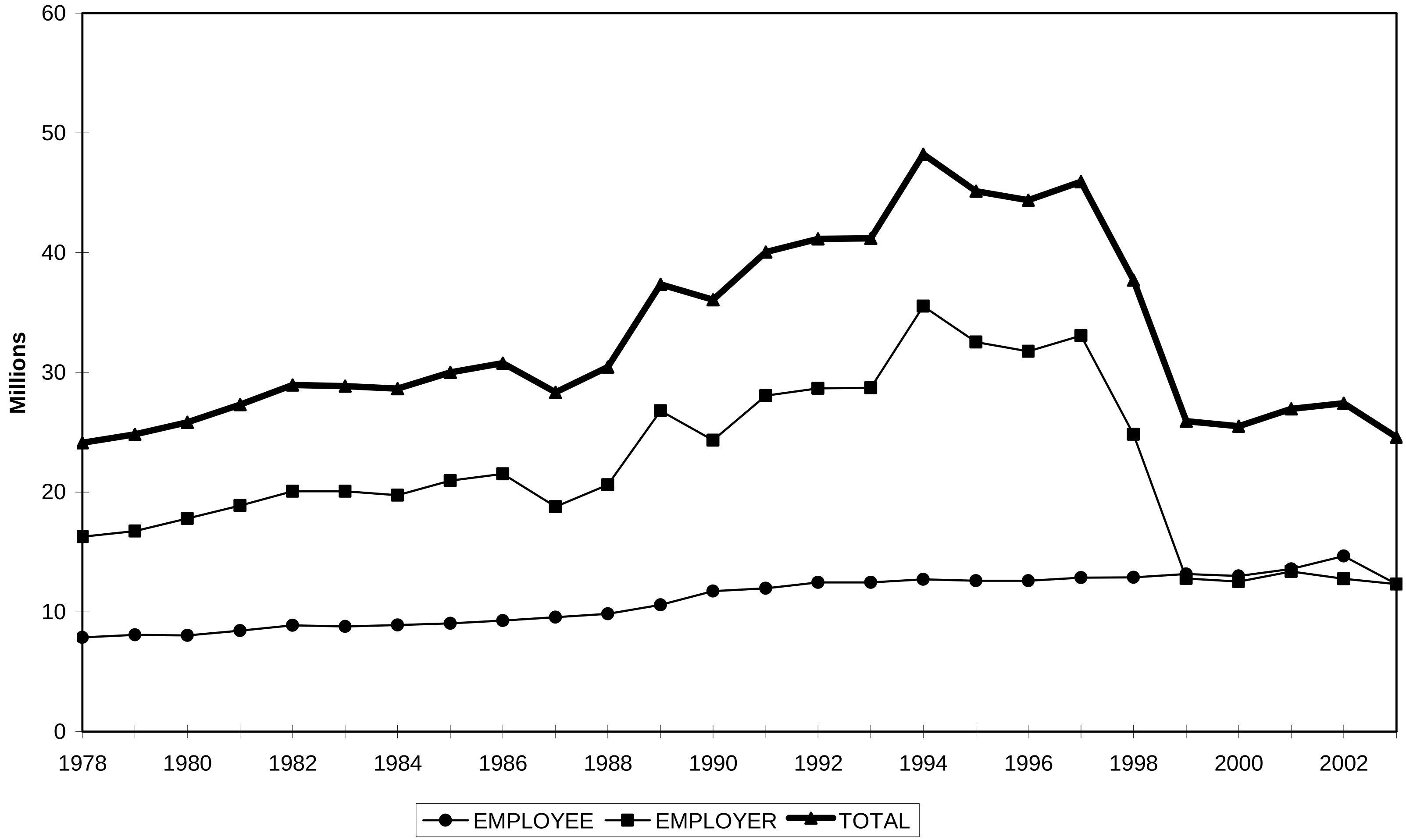
### Employer Contribution as a Percent of Payroll

**City of Cincinnati Retirement System**

| Year | Normal Cost | Unfunded Liability | Total |
|---|---|---|---|
| 1978 | 9.28% | 5.37% | 14.65% |
| 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% ** |

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

# CONTRIBUTIONS




25 YEAR HISTORY

## Employee and Employer Contributions

### City of Cincinnati Retirement System

| Year | Employee Contributions | Employer Contributions | Total |
|---|---|---|---|
| 1978 | 7,845,889 | 16,274,538 | 24,120,427 |
| 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 | 12,300,000 | 12,300,000 | 24,600,000 |

## 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 2002, 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 11.25% of pay.

## Expected 2003 Contribution

Shown below is the expected 2003 contribution level.

| | |
|---|---|
| Expected Contributions at 7% Rate | $12,300,000 |

The minimum required contribution rate (based on the December 31, 2001 valuation) is 3.0%. Therefore, the required contribution is less than the current employer contribution rate of 7%.

### Expected 2004 Contribution Rate

For 2004, required contributions will be based on the normal cost adjusted for the amortization of the current funding surplus. Based on the December 31, 2002 actuarial valuation, the required contribution rate is 11.25%.

The City is making contributions at the 7% rate for 2003 and has budgeted to make contributions at 7% for 2004. The December 31, 2002 valuation does not take into account the 2003 contributions. Since the 7% contribution for 2003 is more than the calculated contribution of 3% of pay, the excess amount could be considered to be a partial "prepayment" of the 2004 contribution. The 4% excess payment in 2003 would then be applied to the 11.25% contribution for 2004 for a net contribution of 7.25% of pay in 2004.

## 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 2,551 at the end of 1978 to 4,585 at December 31, 2002, an 80% increase.

The number of active full-time participants has *decreased* during the 25-year period, beginning at the peak of 8,683 in 1978, and declining to 3,846 at December 31, 2002.

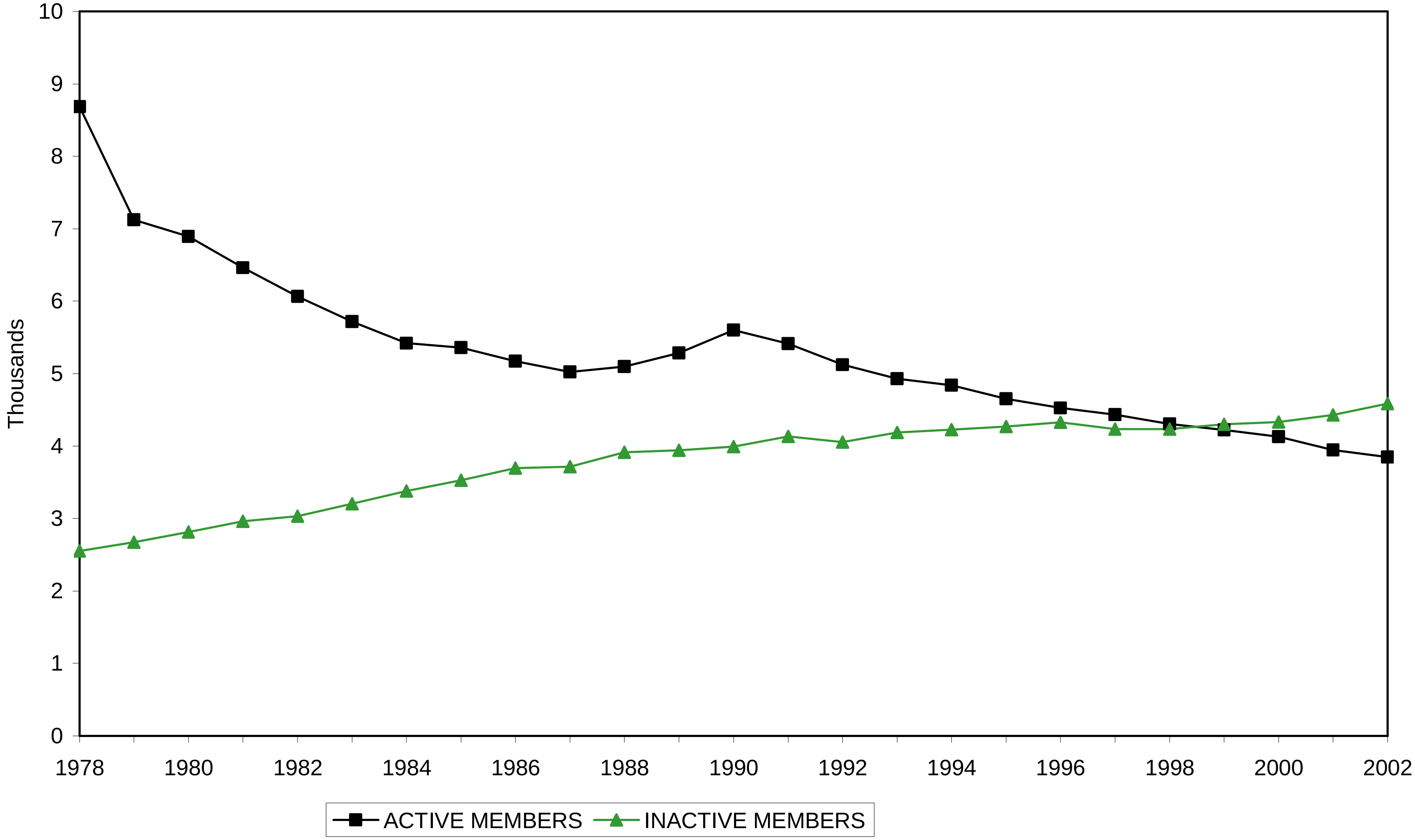
Part of the shift from active to inactive participants this year appears to be the result of better participant data. In the past, it was difficult to discriminate between active participants and recently terminated participants who had elected not to withdraw their contributions. We have continued to work with the City to improve this process.

During the last 10 years the number of active full-time participants has decreased from 5,122 to 3,846. During this period, the closed group (Hamilton County, University Hospital and University of Cincinnati) decreased from 827 to 212. The City participants decreased from 4,295 to 3,634 during this time period.

The relationship of active to retired employees has changed markedly in 25 years, with 3.4 actives per retiree in 1978, but only .84 actives per retiree in 2002. 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 .76 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 |
|---|---|---|---|
| 1978 | 8,683 | 2,551 | 3.40 |
| 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 |

## 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 20.42% of pay. This method is based on the assumption of an ongoing plan with future employee contributions of 7% of pay and employer contributions (or use of surplus) to meet the balance of the required contributions.

To the extent the funding progress is less than 100%, contributions greater than normal cost are required in order to catch up to the anticipated level of funding. If the funding progress exceeds 100%, as is currently the case, 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, 1998 | 114% | 124% | 117% |
| December 31, 1999 | 113% | 131% | 118% |
| December 31, 2000 | 113% | 116% | 114% |
| December 31, 2001 | 115% | 92% | 107% |
| December 31, 2002 | 102% | 99% | 101% |

At December 31, 2002, the ratio of actuarial value of assets to the entry age accrued liability is 101%. This is a decrease from the previous year when the ratio was 107%. The decrease is due primarily to the asset losses.

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

Funding Progress Based on Market Value of Assets

| | Pension | Medical | Total |
|---|---|---|---|
| December 31, 1998 | Not Available | | 139% |
| December 31, 1999 | 132% | 152% | 138% |
| December 31, 2000 | 122% | 126% | 124% |
| December 31, 2001 | 109% | 87% | 101% |
| December 31, 2002 | 85% | 83% | 84% |

## Current Issues

1. Actuarial Methods/Plan Changes/Actuarial Assumptions

   The method for determining the actuarial value of assets was changed with this year's valuation (as adopted by the Board last year). This method reflects 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. During periods of higher than expected returns, the actuarial value will grow less rapidly than market value and will therefore lag market values. During periods of lower than expected returns, the actuarial value is greater than the market value. The method limits the actuarial value to be no more than 20% away from market value.

   The change in methods had minimal impact upon the valuation results because both the old and the new method produced an actuarial asset value that was 120% of market value.

   As of December 31, 2002, the expected actuarial value of assets was about $210 million greater than the final actuarial value of assets. This actuarial loss is the primary source of reduction in the plan's surplus. Over the next three years, additional asset losses will be recognized in the actuarial value of assets and the plan is expected to go into an underfunded position.

   The plan change included in this year's valuation is a recognition of the increase in the maximum limit on compensation under IRS regulations.

   Actuarial assumptions were changed as discussed earlier.

2. Medical Liability

   This year's valuation showed an actuarial gain from this component following last year's loss. Actual costs increased only 6%-10% for 2002 over 2001 compared to the 12% assumed. As noted earlier, we continued to monitor medical claims costs in setting our valuation costs.

   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 99.2%. 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 (such as a VEBA) that have more flexibility for funding are appropriate.

## **Current Issues** *(continued)*

3. Participating Groups (Full-Time Participants)

| | Number | Total Salary | Average Age | Average Service | Average Salary | Number Eligible to Retire: Unreduced Benefits | Number Eligible to Retire: Reduced Benefits |
|---|---|---|---|---|---|---|---|
| City of Cincinnati | 3,634 | 158,944,555 | 45.1 | 14.6 | 43,738 | 280 | 56 |
| University Hospital* | 61 | 2,903,485 | 54.8 | 28.2 | 47,598 | 15 | 11 |
| University of Cincinnati* | 135 | 5,639,929 | 53.1 | 28.6 | 41,777 | 28 | 20 |
| Hamilton County* | 16 | 809,891 | 55.4 | 27.6 | 50,618 | 4 | 4 |
| Total | 3,846 | 168,297,860 | 45.6 | 15.4 | 43,759 | 327 | 91 |

* Closed groups.

As of December 31, 2002, there are 212 active participants in the closed groups. They represent 5.5% of the total active population. In the last five years, the closed groups have declined 53% from 449 participants who represented 10.13% 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, 336 participants are currently eligible for retirement–280 of them on an unreduced basis and 56 on a reduced basis. Over the next five years, 625 additional participants will become eligible for retirement–517 on an unreduced basis. (Plus the 56 now eligible to retire on a reduced basis will also be able to retire with an unreduced benefit in five years.) Thus about 22% of the current City participants will be eligible to retire with unreduced benefits prior to January 1, 2008.

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**

- Assumption Changes
- Health Care Costs

**Negative Factors**

- Investment Climate
- Growing Maturity of Plan

## Current Issues *(continued)*

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 to the asset experience of the past three years, the "cost" of the plan is increasing and is expected to continue to increase. The City has elected to contribute 7% during 1999 and for the next four years. These contributions have provided some cushion as asset values have fallen. Contributing 7% during 2002 decreased the required contribution rate by approximately 0.9% for 2004.

The contribution rate has now increased to 11.25% for the City for 2004. However, the excess contribution for 2003 could be considered to be a partial "prepayment" of the 2004 contribution, reducing this amount to 7.25% of pay.

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 is undertaking 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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# Appendix

# City of Cincinnati
# Projected Actuarial Value of Assets

| | Market Value | Actuarial Value | Difference |
|---|---|---|---|
| December 31, 2002 | 1,976,125,182 | 2,371,350,218 | 395,225,036 |
| December 31, 2003 | 2,040,754,524 | 2,448,905,489 | 408,150,915 |
| December 31, 2004 | 2,105,498,949 | 2,364,722,299 | 259,223,350 |
| December 31, 2005 | 2,170,084,607 | 2,265,918,425 | 95,833,818 |
| December 31, 2006 | 2,234,199,390 | 2,234,199,390 | 0 |

Note: Assumes market value earns 8.75% (before expenses) each year.

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