

April 2004

**Retirement System for Employees of
The City of Cincinnati
Actuarial Valuation Report as of
December 31, 2003**

The City of Cincinnati

MERCER

Human Resource Consulting

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Highlights

This report has been prepared by Mercer Human Resource Consulting for the City of Cincinnati to:

- Present the results of a valuation of the Retirement System for Employees of the City of Cincinnati as of December 31, 2003;
- Review experience under the Plan for the year ended December 31, 2003;
- Provide to the plan sponsor the recommended level of contributions under the Plan for the year ending December 31, 2005; and
- Provide reporting and disclosure information for financial statements, governmental agencies and other interested parties.

Comments

The funding method is the Individual Entry Age Normal method. This method spreads the total cost of benefits over each individual's working career as a level percent of pay. The current year's cost, or normal cost, is that level percentage times the expected pay for the year. The accrued liability for an active participant is the accumulated value of their past normal costs. The actuarial accrued liability for an inactive participant is just the present value of benefits payable to them.

The recommended employer contribution is calculated as follows:

	<u>Cost</u>	<u>Percentage of Pay</u>
▪ <i>Amortization of the Unfunded Actuarial Accrued Liability:</i>	\$16,437,225	9.50%
▪ <i>Normal Cost: This is the cost of benefits accruing this year plus estimated expenses:</i>	\$36,048,212	20.82%
▪ <i>Less Expected Employee Contributions this year:</i>	<u>\$12,675,012</u>	<u>7.32%</u>
▪ <i>Net Employer Contribution:</i>	\$39,810,425	23.00%

This method shows both the long-term cost of the plan as well as the short-term cost. The long-term cost is the normal cost rate, which is 13.50% of pay for the employer. The short-term cost is the normal cost rate reduced or increased by the amortization of any surplus or shortfall in the funded status. As of December 31, 2003, a shortfall exists that increases the employer cost to 23.00%. Under the policy adopted by the Board, the net employer contribution rate is applied to the second following year, or 2005 in this case.

Highlights (continued)

Gain/Loss and Other Change Information

The gain/loss analysis is done using the Individual Entry Age Normal funding method which was in effect for both 2002 and 2003. Under this method, we compare actual plan liabilities at December 31, 2003 to the expected liability had all assumptions been exactly realized. The plan experienced a net gain of \$117,915,000 last year, due primarily to asset experience and demographics offset by the medical plan experience and the recognition of prior asset losses.

- *Assets experience:* 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. However, because of the smoothing technique used for the actuarial value of assets, \$165,827,000 of prior losses is also being recognized.

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 \$263,980,000. 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.

- *Salary increases:* Overall, this year's salary increases for participants who were active last year and this year was slightly more than expected. This generated a loss of \$2,869,000 for the plan.
- *New entrants:* Each year's valuation is based solely on the current participants of the plan, with no provision made for new participants in the future. As a result, every year the accrued liability differs from the prior year since there are, in fact, new participants every year. This year, the new participants generated a loss of approximately \$1,395,000.
- *Demographic considerations:* When participants retire later than expected or terminate at rates more than expected, they generate decreased liabilities. In addition, the retiree census data was updated to reflect prior deaths that had not been previously reported. The net changes in status generated a gain of approximately \$31,795,000 for the year.
- *Post-retirement medical benefits:* Medical claims for the 2003 calendar year were more than expected. Dental and vision claims were below what we expected. As a result, a loss of approximately \$60,013,000 was generated for the year. However, the use of better information regarding retiree and beneficiary participation generated a gain of \$57,500,000. This resulted in a net loss of \$2,513,000.

Other Changes: A plan change reflects the impact of the recognition of Medicare prescription drug coverage beginning in 2006. As a result, a reduction in liability of approximately \$16,694,000 was generated. Finally, assumptions regarding the future rates of increase in medical costs were changed resulting in an increase in liabilities of \$22,810,000.

SUMMARY OF VALUATION RESULTS

The summary presented on the following page provides a comparison of the principal valuation results for each of the last five plan years. Its purpose is to provide the Board with a concise summary of past plan operations which - when combined with estimates regarding future economic, legislative and financial factors affecting the plan - can give insight into anticipated future contribution requirements under the plan.

RETIREMENT SYSTEM OF THE CITY OF CINCINNATI

SUMMARY OF VALUATION RESULTS

	12/31/1999	12/31/2000	12/31/2001	12/31/2002	12/31/2003	Percentage (Decrease) Increase 2002/2003
Participants						
Active	4,221	4,128	3,946	3,846	3,710	(3.5)%
Inactive	4,300	4,334	4,430	4,585	4,522	(1.4)%
Total Payroll	\$ 172,268,484	\$ 171,555,002	\$ 169,757,733	\$ 168,297,856	\$ 166,037,875	(1.3)%
Employer Normal Cost Contribution as a Percent of Payroll	(8.3)%	14.4%	13.4%	13.1%	13.5%	
Employer Contribution as a Percent of Payroll	(8.3)%	(4.8)%	3.0%	11.25%	23.00%	
Actual Contribution						
Employer	\$ 12,768,885	\$ 12,520,902	\$ 13,374,661	\$ 12,755,764	\$ 12,619,671	1.1%
Members	13,163,743	12,991,882	13,571,803	14,664,620	13,311,001	(9.2)%
Assets						
Market Value	\$ 2,626,392,512	\$ 2,560,804,597	\$ 2,352,508,062	\$ 1,976,125,182	\$ 2,279,721,027	15.4%
Actuarial Value	2,251,554,942	2,363,697,947	2,475,933,148	2,371,350,218	2,279,721,027	(3.9)%
Return (MV)	12.1%	0.6%	(4.7)%	(12.1)%	21.8%	
Present Value of Benefits	\$ 2,162,175,783	\$ 2,330,890,618	\$ 2,524,215,831	\$ 2,542,172,918	\$ 2,615,230,743	2.9%
Actuarial Accrued Liability	\$ 1,909,684,171	\$ 2,071,566,514	\$ 2,318,801,723	\$ 2,343,748,367	\$ 2,419,503,174	3.2%
Value of Accrued Benefits						
Vested	\$ 1,580,417,442	\$ 1,736,364,291	\$ 2,065,643,564	\$ 2,102,288,315	\$ 2,183,365,541	3.9%
Non-Vested	50,344,718	57,466,242	59,841,623	47,802,603	67,802,198	41.8%
Total	1,630,762,160	1,793,830,533	2,125,485,187	2,150,090,918	2,251,167,739	4.7%
Funding Progress (Actuarial Value of Assets/Actuarial Accrued Liability)	118%	114%	107%	101%	94%	(7)%

Note: Percent of payroll numbers are based upon the expected payroll for the following year.

Summary of Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Changes in plan provisions, assumptions, and actuarial funding methods between the two valuations are described on the following page.

Summary of Costs	Actuarial Valuation as of	
	December 31, 2003	December 31, 2002
Employer Normal Cost (<i>Beginning of Year</i>)	\$ 22,341,044	\$ 22,032,478
Employer Normal Cost (<i>Payable throughout the year</i>)	\$ 23,373,200	\$ 23,050,379
As a percentage of expected payroll	13.50%	13.10%
Employer Contribution (<i>Payable throughout the year</i>)	\$ 39,810,425	\$ 19,804,629
As a percentage of expected payroll	23.00%	11.25%

Assets and Actuarial Present Values		
Market Value of Assets	\$ 2,279,721,027	\$ 1,976,125,182
Actuarial Value of Assets	\$ 2,279,721,027	\$ 2,371,350,218
Entry Age Actuarial Accrued Liability	\$ 2,419,503,174	\$ 2,343,748,367
Unfunded Actuarial Accrued Liability	\$ 139,782,147	\$ (27,601,851)
Actuarial Present Value of Accumulated Plan Benefits	\$ 2,251,167,739	\$ 2,150,090,918
Vested Present Value of Accumulated Plan Benefits	\$ 2,183,365,541	\$ 2,102,288,315

Summary of Data		
Number of Participants in Valuation		
Active Participants - Full Time	3,710	3,846
Active Participants - Part Time	1,996	1,754
Participants with Deferred Benefits	153	99
Participants Receiving Benefits	4,369	4,486
Total	10,228	10,185

Active Participant Statistics		
Total Compensation	\$ 166,037,875	\$ 168,297,856
Average Compensation (limited) *	\$ 44,736	\$ 43,759
Average Age	45.8	45.6

* Full-time employees

Certification

We have prepared an actuarial valuation of the Retirement System for Employees of the City of Cincinnati as of December 31, 2003. The results of the valuation are set forth in this report, which reflects the provisions of the Plan as amended through 2003.

The following changes to plan provisions, assumptions, and actuarial methods were made:

Plan Provisions

- The medical plan benefits were adjusted to reflect the implementation of Medicare prescription drug coverage in 2006.

Assumptions

- The medical trend rates were adjusted to reflect higher initial rates of increase and a faster decline to the ultimate level of increase.

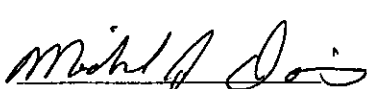
Actuarial Methods

- The actuarial value of assets was reset to the market value of assets. Future asset gains and losses will still be subject to the five-year smoothing method.

The valuation is based on employee and financial data which were provided by the System and which are summarized in this report.

All costs, liabilities and other factors under the Plan were determined in accordance with generally accepted actuarial principles and procedures, in accordance with the provisions of current federal statutes and regulations issued thereunder, using an actuarial cost method which we believe is appropriate. In our opinion, the actuarial assumptions are reasonable. This report fully and fairly discloses the actuarial position of the Plan on an ongoing basis.

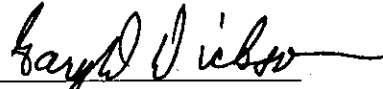
We are available to answer any questions on the material contained in the report, or to provide explanations or further details as may be appropriate. We are employed as consultants for Mercer Human Resource Consulting. We are both members of the American Academy of Actuaries and/or the Society of Actuaries and meet the Qualifications Standards of the American Academy of Actuaries to reach the actuarial opinions contained herein.



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Section 1.1

Present Value of Benefits and Actuarial Accrued Liability

The Present Value of Benefits is the present value of all benefits current employees 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 normal cost is the portion of those benefits that is expected to be earned during the current year. The remaining benefits are expected to be earned by virtue of future service that current employees will provide. For inactive members, all benefits are already earned, so the Present Value of Benefits and the Actuarial Accrued Liability are equal.

Present Value of Benefits - Inactive Members	December 31, 2003	December 31, 2002
Retirees and Beneficiaries	1,018,873,974	\$952,735,592
Deferred Vested Participants and Survivors	16,062,554	10,340,336
Survivor Benefits	<u>8,677,579</u>	<u>9,033,313</u>
Total Non-medical Care Benefits	1,043,614,107	972,109,241
Medical Care Benefits	477,620,750	459,820,625
Dental Benefits	13,618,447	27,999,137
Vision Benefits	<u>1,173,966</u>	<u>2,033,009</u>
Total Medical Care Benefits	492,413,163	489,852,771
Total for Inactive Members	1,536,027,270	1,461,962,012
Present Value of Benefits - Active Members		
Retirement Benefits	630,291,634	653,148,363
Vesting Benefits	10,406,180	10,726,874
Survivor's Benefits	7,434,335	7,477,527
Disability Benefits	35,123,977	36,011,796
Return of Contributions	<u>37,345,507</u>	<u>37,154,300</u>
Total Non-medical Care Benefits	720,601,633	744,518,860
Medical Care Benefits	349,881,290	322,977,987
Dental Benefits	8,207,952	11,870,179
Vision Benefits	<u>512,598</u>	<u>843,880</u>
Total Medical Care Benefits	358,601,840	335,692,046
Total for Active Members	1,079,203,473	1,080,210,906
Total for All Members	2,615,230,743	\$2,542,172,918

Section 1.1

Present Value of Benefits and Actuarial Accrued Liability

Actuarial Accrued Liability - Inactive Members	December 31, 2003	December 31, 2002
Retirees and Beneficiaries	1,018,873,974	\$952,735,592
Deferred Vested Participants and Survivors	16,062,554	10,340,336
Survivor Benefits	<u>8,677,579</u>	<u>9,033,313</u>
Total Non-medical Care Benefits	1,043,614,107	972,109,241
Medical Care Benefits	477,620,750	459,820,625
Dental Benefits	13,618,447	27,999,137
Vision Benefits	<u>1,173,966</u>	<u>2,033,009</u>
Total Medical Care Benefits	492,413,163	489,852,771
Total for Inactive Members	1,536,027,270	1,461,962,012
Actuarial Accrued Liability - Active Members		
Retirement Benefits	\$542,020,106	\$563,196,887
Vesting Benefits	7,298,483	7,379,143
Survivor's Benefits	5,239,079	5,300,400
Disability Benefits	23,117,373	23,822,500
Return of Contributions	<u>15,515,559</u>	<u>14,774,677</u>
Total Non-medical Care Benefits	593,190,600	614,473,607
Medical Care Benefits	283,346,643	257,063,859
Dental Benefits	6,517,399	9,553,842
Vision Benefits	<u>421,262</u>	<u>695,047</u>
Total Medical Care Benefits	290,285,304	267,312,748
Total for Active Members	883,475,904	881,786,355
Total for All Members	\$2,419,503,174	\$2,343,748,367

Section 1.2

Normal Cost

The normal cost is annual cost assigned, under the Individual Entry Age Normal Cost Method, to benefits earned during the current year. The components are shown below as of the beginning of the year:

Normal Cost (Individual Entry Age Normal)	December 31, 2003	December 31, 2002
Retirement Benefits	\$12,131,457	\$12,429,664
Vesting Benefits	397,359	433,006
Survivor's Benefits	289,346	302,807
Disability Benefits	1,567,504	1,592,470
Return of Contributions	<u>2,890,379</u>	<u>2,952,057</u>
Total Non-medical Care Benefits	\$17,276,045	\$17,710,004
Medical Care Benefits	8,940,491	8,300,672
Dental Benefits	226,051	316,928
Vision Benefits	<u>13,743</u>	<u>22,591</u>
Total Medical Care Benefits	\$ 9,180,285	\$ 8,640,191
Expected Expenses	<u>\$ 8,000,000</u>	<u>8,000,000</u>
Total Normal Cost	\$34,456,330	\$34,350,195
Expected Employee Contributions	12,115,286	12,317,717
Employer Normal Cost	\$22,341,044	\$22,032,478

Section 1.3

Determination of Contribution

	December 31, 2003	December 31, 2002
1. Present Value of Projected Benefits:		
(a.) Active Participants	\$ 1,079,203,473	\$ 1,080,210,906
(b.) Participants with Deferred Benefits	38,577,073	22,234,833
(c.) Participants Receiving Benefits	1,497,450,197	1,439,727,179
(d.) Total	2,615,230,743	2,542,172,918
2. Present Value of Future Employee Contributions	90,861,942	92,470,759
3. Present Value of Future Normal Costs	\$ 104,865,627	\$ 105,953,792
4. Entry Age Accrued Liability (1)(d) – (2) – (3)	2,419,503,174	2,343,748,367
5. Actuarial Value of Assets	2,279,721,027	2,371,350,218
6. Unfunded/(Surplus) (4) – (5)	139,782,147	(27,601,851)
7. Amortization of Unfunded/(Surplus) Over 15 Years (at the beginning of the year)	15,711,360	(3,102,418)
8. Amortization of Unfunded/(Surplus) Over 15 Years (assuming monthly payments)	16,437,225	(3,245,750)
9. Total Normal Cost, including Expenses (at the beginning of the year)	34,456,330	34,350,195
10. Total Normal Cost, including Expenses (assuming monthly payments)	\$ 36,048,212	\$ 35,937,174
11. Employees' Expected Contributions to Normal Cost (assuming monthly payments)	12,675,012	12,886,795
12. Employer Normal Cost (10) – (11)	23,373,200	23,050,379
13. Employer Total Cost (8) + (12)	39,810,425	19,804,629

Section 1.4

Actuarial (Gain) / Loss and Other Changes

The actuarial (gain)/loss is the amount by which the surplus exceeds or falls short of expectations. It is developed below.

1. Unfunded Actuarial Accrued Liability as of December 31, 2002	\$(27,601,850)
2. Normal Cost for 2003, including expenses (at beginning of year)	34,350,195
3. Contributions	(18,618,055)
4. Interest	(528,918)
5. Expected Unfunded Actuarial Accrued Liability as of December 31, 2003 (1) + (2) + (3) + (4)	(12,398,628)
6. Assumption, Method, and Plan Changes	270,096,118
7. (Gain)/Loss	(117,915,343)
8. Actual Unfunded Actuarial Accrued Liability as of December 31, 2003 (5) + (6) + (7)	139,782,147

The actuarial (gain)/loss affects the plan shortfall, which, amortized over 15 years, increases the contribution rate. Contribution rates are shown before taking into account expected employee contributions.

The actuarial (gain)/loss and other changes are broken down into their component parts below.

Component	Change in Unfunded Liability	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).

Section 2

Accounting Information

A. Actuarial Present Value of Accumulated Plan Benefits

The actuarial present value of vested and nonvested accumulated plan benefits was computed on an ongoing plan basis in order to provide required accounting information. In this calculation, a determination is made of all benefits earned by current participants as of the valuation date, and the actuarial present value is then computed using demographic assumptions and an assumed interest rate. Assumptions with respect to future salary increases and accrual of future benefit service are not necessary for this purpose.

Accumulated Benefits	December 31, 2003	Number of Vested Participants
Vested Benefits		
Participants Currently Receiving Payments	\$ 1,497,450,197	4,369
Participants with Deferred Benefits	38,577,073	153
Active Participants	647,338,271	2,975
Nonvested Benefits *	\$ 67,802,198	2,731
Total Actuarial Present Value of Accumulated Plan Benefits	\$ 2,251,167,739	
Market Value of Assets	\$ 2,279,721,027	

* Includes 1,996 part-time employees, and medical benefits for participants with between 5 and 15 years of service.

We reserve the right to review any materials in which the actuarial calculations shown above are reproduced and credited to Mercer Human Resource Consulting.

Section 2

B. Statement of Changes in Accumulated Plan Benefits

A statement of changes in the actuarial present value of accumulated plan benefits follows. This statement shows the effect of certain events on the actuarial present value shown on the previous page.

Actuarial Present Value of Accumulated Plan Benefits as of December 31, 2002	\$ 2,150,090,918
Increase (decrease) during the year attributable to:	
Plan amendment	\$ (16,693,862)
Change in Actuarial Assumptions	22,809,984
Benefits Accumulated and Gains and Losses	45,834,814
Increase for interest due to the decrease in the discount period	181,842,730
Benefits Paid and Transfers to other Systems	(132,716,845)
Net increase (decrease)	\$ 101,076,821
Actuarial Present Value of Accumulated Plan Benefits as of December 31, 2003	\$ 2,251,167,739

The benefits valued include all benefits – retirement, preretirement death, and vested termination and medical benefits – payable from the Plan for employee service prior to the valuation date. Benefits are assumed to accrue (accumulate) in accordance with the plan provisions.

The actuarial present value of accumulated plan benefits shown in this report is calculated using the same actuarial assumptions used for funding purposes.

We reserve the right to review any materials in which the actuarial calculations shown above are reproduced and credited to Mercer Human Resource Consulting.

Section 3.1**Summary of Assets**

	December 31, 2003
Market Value	
Cash, Cash Equivalents, Accounts Receivable and Accounts Payable	\$ 30,188,972
Corporate Bonds	195,667,591
State and Local Obligations	3,741,409
Short Term Bills & Notes Agencies	21,914,155
Short Term Bills & Notes Treasuries	9,951,186
Commercial Paper & Short Term Investments	98,945,302
Venture Capital	14,528,717
U.S. Government Bonds	357,659,210
Common Stock	1,494,538,126
Other Bonds	29,359,691
Other Assets	66,769
Loans to Members	19,214,172
Accrued Interest on Investments and Dividends Receivable	9,435,515
Equipment	609,953
Total Assets	2,285,820,768
Accrued Contributions	522,796
Less: Advanced Contribution	2,002
Less: Accrued Liabilities	6,620,535
Assets for Valuation	2,279,721,027

Section 3.2**Reconciliation of Assets**

	Market Value
Assets as of 12/31/2002	\$1,976,130,447*
Receipts	
Investment income	61,299,852
Employer contributions	12,619,671
Employee contributions	13,311,001
Net appreciation	356,983,669
Transfers from other systems	898,542
Disbursements	
Benefit payments	130,280,539
Transfers to other systems	3,334,848
Expenses	7,906,768
Assets as of 12/31/2003	2,279,721,027

*Market value of assets as of 12/31/2002 changed from 1,976,125,182 to 1,976,130,447.

Section 3.3**Development of Actuarial Value of Assets**

The actuarial value of assets is being reset to the market value of assets as of December 31, 2003.

1. Market Value of Assets 12/31/2003	\$2,279,721,027
2. Actuarial Value of Assets 12/31/2003	\$2,279,721,027

Section 4.1

Plan Participants

A. Reconciliation of Participants From December 31, 2002 to December 31, 2003

	Active Participants	Inactive Participants		Total
		With Deferred Benefits	Receiving Benefits	
Beginning of Year	3,846	99	4,486	8,431
Contribution Refund Cash-outs	(65)	N/A	N/A	(65)
Vested Terminations	(61)	61	N/A	0
Age Retirements	(177)	(4)	181	0
Disabilities	(1)	N/A	1	0
Deaths	(20)	(4)	(201)	(225)
Survivors	N/A	5	42	47
New Entrants	150	N/A	N/A	150
Rehires	13	(4)	(1)	8
Net Part Time Change	25	N/A	2	27
Data Corrections	0	0	(141)	(141)
Net Change	(136)	54	(117)	(199)
End of Year	3,710	153	4,369	8,232

Section 4.1

B. Average Compensation for Full-Time Participants

Age	Service									Total
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40+	
Under 25	49	1								50
	25,320	51,865								26,327
25-29	104	34	1							139
	31,290	39,281	31,726							33,248
30-34	139	88	44	2						273
	29,450	39,175	41,436	45,066						34,631
35-39	124	80	143	94						441
	30,888	43,243	45,128	44,762						40,704
40-44	88	93	172	219	70	5				647
	32,311	41,979	44,703	47,908	50,531	49,799				44,381
45-49	83	64	138	193	163	145	19			805
	34,666	40,775	42,942	45,578	52,612	52,434	51,240			46,412
50-54	47	58	102	126	107	195	101	1		737
	33,910	45,700	45,885	45,485	49,893	54,607	54,030	55,599		49,057
55-59	29	25	76	80	34	89	77	14		424
	36,961	49,708	41,578	46,458	48,093	54,184	57,477	51,557		49,048
60-64	9	18	20	27	17	18	21	9	3	142
	40,723	54,596	55,218	49,462	47,590	50,809	56,042	52,296	64,761	51,792
65-69	2	3	10	7	2	5	3	3	3	38
	30,726	44,714	35,350	32,785	67,884	42,266	53,636	66,109	53,970	43,338
70-74		2	1	1		2	2		1	9
		89,870	36,011	42,152		34,145	39,494		45,868	50,116
75+			1	2		1	1			5
			30,092	34,650		31,336	41,692			34,484
TOTAL	674	466	708	751	393	460	224	27	7	3,710
	31,503	42,914	44,191	46,219	50,971	53,365	54,977	53,570	57,437	44,736

Compensation shown above is 2003 compensation and has been limited to \$200,000. There are also 1,996 part-time participants.

Section 4.1

C. Inactive Participants

Age	Participants With Deferred Benefits		Participants Receiving Benefits	
	Count	Total Monthly Benefits	Count	Total Monthly Benefits
Under 40	21	\$ 16,842	16	\$ 7,194
40-44	22	22,474	25	20,072
45-49	30	37,010	65	91,657
50-54	43	67,365	339	862,040
55-59	29	42,790	496	1,215,023
60-64	8	9,727	546	1,157,823
65-69	-	-	663	1,261,026
70-74	-	-	639	1,157,722
75-79	-	-	663	988,622
80-84	-	-	526	669,694
85-89	-	-	261	292,594
90-94	-	-	104	91,108
95-104	-	-	26	24,934
Total	153	\$ 196,208	4,369	\$ 7,839,509

Section 4.2

Actuarial Basis

A. Individual Entry Age Normal Cost Method

Liabilities and contributions shown in this report are computed using the individual entry age normal method of funding. The objective under this method is to fund each participant's benefits under the plan as payments which are level as a percentage of salary, starting at original participation date (or employment date), and continuing until the assumed retirement, termination, disability or death.

At the time the funding method is introduced, there will be a liability which represents the contributions which would have been accumulated if this method of funding had always been used. The difference between this liability and the assets (if any) which are held in the fund is the unfunded liability, which is typically funded over a chosen period in accordance with an amortization schedule.

A detailed description of the calculation follows:

- The **normal cost** for each active participant under the assumed retirement age is determined by applying to compensation the level percentage of salary which, if contributed each year from date of entry into the plan until the assumed retirement (termination, disability or death) date, is sufficient to provide the full value of the benefits expected to be payable.
- The **present value of future normal costs** is the total of the discounted values of all active participants' normal costs, assuming these to be paid in each case from the valuation date until retirement (termination, disability or death) date.
- The **present value of projected benefits** is calculated as the value of all benefit payments expected to be paid to the plan's current participants, including active and retired members, beneficiaries, and terminated members with vested rights.
- The **accrued liability** is the excess of the present value of projected benefits over the present value of future normal costs.
- The **unfunded liability** is the excess of the accrued liability over the actuarial asset value of the fund, and represents that part of the accrued liability which has not been funded by accumulated past contributions.
- The **past service cost** is the level annual payment over a stipulated number of years which is required to amortize the unfunded liability.

There have been no changes to the cost method.

Section 4.2

B. Asset Valuation Method

The actuarial value of assets is being reset to the market value of assets as of December 31, 2003. For future years, asset gains and losses will be recognized at the rate of 20% per year. The investment gain/(loss) is taken as the excess of the actual return on assets over the expected return on assets. The investment gain/(loss) is then recognized at 20% per year until fully recognized. The actuarial value of assets is the market value minus the sum of the deferred investment gains/(losses) during the preceding five plan years.

In addition, the actuarial value is restricted to be no less than 80% of the market value or no more than 120% of the market value.

Changes in Method

The prior methods are described below:

The actuarial value of assets is based on a five-year moving average of gains and losses recognized at 20% per year. The investment gain/(loss) is taken as the excess of the actual return on assets over the expected return on assets. The investment gain/(loss) is then recognized at 20% per year until fully recognized. The actuarial value of assets is the market value minus the sum of the deferred investment gains/(losses) during the preceding five plan years.

In addition, the actuarial value is restricted to be no less than 80% of the market value or no more than 120% of the market value.

C. Valuation Procedures

The limitations of Internal Revenue code Section 415(b) have been incorporated into our calculations.

The plan was amended July 1, 1991 to include part-time employees who were previously excluded. These participants do not exhibit the same turnover pattern as full-time employees. Consequently, the liabilities and costs in this valuation are based upon full-time participants only, except to include the accumulated contributions for part-time employees. The city is contributing at a rate of 3.00% of pay based on the 1995 analysis of experience.

For participants who terminate prior to retirement with less than 15 years of service, the liability held is the value of employee contributions with interest. Seventy-five percent of participants who terminate prior to retirement with 15 years of service or more are assumed to elect a return of employee contributions with interest, while 25% are assumed to elect annuity benefits.

There have been no changes to the valuation procedures.

Section 4.2

D. Actuarial Assumptions

(1) The actuarial assumptions used to determine employer contributions to the plan are as follows:

Investment Return: 8-3/4% per year, net of expenses, compounded annually.

Mortality:

Non-disabled lives: Uninsured Pensioner 1994 Mortality Table projected to 2009.

Disabled retirees: Pension Benefit Guarantee Corporation Disabled Mortality Table.

Turnover:

2000 City of Cincinnati Rate of Termination Experience Table.

The turnover assumption during the first three years of service is as follows:

Years of Service	Current Rate
1	.10
2	.10
3	.07

Specimen rates after the first three years of service are as follows:

Attained Age	Current Rate
25	.0675
30	.055
40	.030
50	.035
60	.040

Disability: The 1995 City of Cincinnati Disability Retirement Experience Table. Specimen rates are as follows:

Attained Age	Rate per 1,000 Lives
25	1.2
30	1.4
40	2.8
50	6.6
60	0.0

Section 4.2

D. Actuarial Assumptions (Continued)

Salary: Salary increases are assumed to vary by service. Specimen rates are as follows:

<u>Service</u>	<u>Annual Increase</u>
0	.080
5	.055
10	.040
20	.040
30	.045

Other Salary Assumptions: For those participants who had not elected the 2.50% formula an additional 10% increase in average salary is used to reflect final lump sum payments.

Salary for valuation purposes is total pay for year multiplied by:

- (1) 1.0027 if year has 26 pay periods
- (2) 0.9656 if year has 27 pay periods.

Retirement Age: Rates of retirement are assumed to be in accordance with the following table for participants who are age 60 with 5 years of service or are any age with 30 years of service (those eligible for unreduced benefits).

<u>Age</u>	<u>Current Rate</u>
47-50	25%
51-53	30%
54	35%
55-56	35%
57-59	30%
60	30%
61-64	25%
65	30%
66-69	30%
70 and above	100%

Early Retirement: Twelve percent of those eligible for reduced early retirement are assumed to retire.

Section 4.2

D. Actuarial Assumptions (Continued)

Expenses: Expenses are assumed to be the prior year's expenses rounded to the next \$100,000.

Medical benefits: Hospital and Surgical: Adjusted premiums are based on experience for recent years adjusted to current year by assumed annual increase in premium costs.

Some retirees may have dependent children covered under the retiree health plan. Their cost is included in the historical claims experience used to estimate the adult per capita rate.

Any administrative fees (claims administration and management, stop-loss, prescription drug, etc.) charged to the plan are included in the costs developed.

Costs are determined on a per capita basis, adjusted to age 65, and annualized for presentation.

Group 1 refers to current inactive participants and active participants hired prior to 1997. Group 2 refers to active participants hired in 1997 or later.

*Annual average age 65
adult per capita claims
cost*

		Group 1	Group 2
▪	Pre-Medicare	\$ 10,630	\$ 10,785
▪	Post-Medicare	3,773	3,509

Assumed premium increase specimens are shown in the table below:

Current Year:

Year	Group 1	Group 1 Medicare	Group 2	Group 2 Medicare
2004	11.7%	12.2%	11.7%	12.2%
2005	10.7%	11.3%	10.7%	11.3%
2010	5.7%	6.3%	5.6%	6.3%
Ultimate trend(2012)	5.0%	5.0%	5.0%	5.0%

Section 4.2

D. Actuarial Assumptions (Continued)

Prior Year:

Year	Group 1	Group 1 Medicare	Group 2	Group 2 Medicare
2003	11.8%	11.9%	12.1%	12.2%
2005	10.3%	10.5%	10.7%	10.8%
2010	6.5%	6.7%	6.8%	6.9%
Ultimate trend(2013)	5.3%	5.5%	5.3%	5.6%

Aging: Independent of other factors (e.g. Medicare) overall medical costs (blended average of medical, prescription drug and administrative fees) are assumed to increase with age.

Age	Medical Increase
40 to 42	2.5%
42 to 45	2.6%
45 to 49	3.2%
49 to 52	3.1%
52 to 53	3.0%
53 to 55	2.9%
55 to 65	3.6%
65 to 66	2.7%
66 to 67	2.6%
67 to 68	2.3%
68 to 69	2.2%
69 to 70	2.1%
70 to 72	1.8%
72 to 76	1.2%
76 to 77	1.1%
77 to 80	0.6%
80+	0.0%

Dental aging assumptions are a 1.0% increase per year up to age 65, then 0%.
No aging assumptions are included in the vision coverage.

Section 4.2

D. Actuarial Assumptions (Continued)

Participation: 100% for Group 1. Group 2 actives have to pay some portion of their medical costs, so assumed participation rates are reduced by rate of cost sharing.

<u>Retiree Contribution Percentage</u>	<u>Assumed Participation Rate</u>
25%	80%
50%	60%
75%	40%

Medicare reform impact: Beginning in 2006 Medicare eligible participants will have prescription drug benefits. Because guidance has not yet been furnished and the city has not determined its approach to coordinating with Medicare reform prescription coverage, a very conservative estimate of the expected savings of this legislation has been included.

Other Medical Benefits: Medicare Part B: Medicare Part B premiums are assumed to increase in accordance with estimates from the 2004 (2002 last year) Annual Report of the Board of Trustees (previously the Congressional Budget Office) until the year 2013 (2011 last year) and then increase at 5.0% (5.5% last year) per year thereafter. 2004 Part B Premiums are \$799.

Dental: Premiums are set at \$206 (prior year \$278) and are assumed to increase at a decreasing rate, starting at 6.25% for 2004, then decreasing by 0.25% per year to 4.5% and remaining there for 15 years, then decreasing gradually over 17 years to zero. This takes the \$1,000 fixed cap on annual dental costs into account.

Vision: The vision premium is \$24 (prior year \$40) per year. The benefit level is fixed; however we anticipate a 0.5% annual increase in costs to take increases in administrative costs into account.

Option Electives: 75% of male participants and 25% of female participants will have a spouse who is covered under the medical benefits portion of the plan. Of these participants with a covered spouse, 85% will elect a Joint & Survivor option.

(2) For computing the value of vested and non-vested benefits, the following modifications were made to the above assumptions:

No future increases in salaries were assumed. Accumulated plan benefits were calculated using estimated Average Monthly Earnings in effect on the valuation date.

Section 4.3

Summary of Plan Provisions

Average Compensation:

The average compensation used in the calculation of benefits depends on whether the participant elects the 2.50% formula which uses the average highest base compensation or the 2.22% formula which uses the average highest total compensation.

Average Highest Base Compensation:

The term "average highest base compensation" means the average annual compensation earned by a member during his most highly compensated period of three consecutive years of service. It excludes overtime pay, payment for compensatory time, earnings from any additional part-time employment in City service, and lump sum terminal leave pay.

Average Highest Total Compensation:

The term "average highest total compensation" means the average annual compensation earned by a member during his most highly compensated period of three consecutive years of service. It includes that portion of lump sum terminal leave pay which could be accumulated in the final three years of active service, except that the payment for unused sick leave shall not exceed an amount equal to the compensation at the hourly rate last earned by a member for 312 hours.

Service Retirement Allowance:

Condition for Allowance: Any member in service may retire upon:

- a. attaining age 60, regardless of length of creditable service if he was enrolled prior to January 1, 1969, or with at least 5 years of creditable service if he was enrolled January 1, 1969 or later, or
- b. completing 30 or more years of creditable service at any age, with a retirement allowance commencing immediately; or
- c. completing 5 years of creditable service before age 60 and then may retire with a retirement allowance commencing at age 60, provided, however, at the time of election of the deferred annuity there is no loan outstanding against his contributions.

Amount of Allowance: The annual retirement allowance consists of:

- a. An annuity provided by the number equal in value to his contributions with interest at the time of his retirement; and
- b. A pension which together with his annuity produces a total annual retirement allowance equal to 2.50% of his average highest base compensation or 2.22% of his average highest total compensation multiplied by the number of years of his membership service, whichever is applicable.

Section 4.3

- c. For members with credit for service rendered prior to the establishment of the System, an additional pension of 2.50% of his average highest base compensation or 2.22% of his average highest total compensation multiplied by the number of years of such prior service, whichever is applicable.
- d. Annual increases of 3% compounded annually commencing 1 year after retirement.

In no event shall the retirement allowance be less than \$4.00 per month multiplied by his years of credited service not in excess of 25 years.

In no event shall the retirement allowance be greater than that permitted by Section 415 of the Internal Revenue Code.

Advanced Service Retirement Allowance:

Condition for Allowance: Any member who has attained age 55 and has 25 but less than 30 years of membership service may retire on an advanced service retirement allowance.

Amount of Allowance: The annual retirement allowance consists of:

- a. An annuity provided by the number equal in value to his contributions with interest at the time of his retirement.
- b. A pension which shall be the actuarial equivalent at his age at the date of retirement, of the pension which would have been payable had he attained the age of sixty on said date.

Disability Retirement Allowance:

Condition for Allowance: Any member in service who (1) is disabled as the result of an accident which occurs in the performance of his duties as an employee regardless of age or length of service, or (2) having completed five years of service, is disabled by reason of either accidental or non-accidental cause, may be retired on a disability retirement allowance, provided he is found to be permanently incapacitated, either mentally or physically, for the further performance of duty.

Amount of Allowance: Upon disability retirement a member receives a service retirement allowance if he has attained age 60 or any age with 30 years of creditable service, otherwise he receives a disability retirement annual allowance which consists of:

- a. An annuity provided by the number equal in value to his contributions with interest at the time of his retirement.

Section 4.3

- b. A pension which together with his annuity produces a total annual retirement allowance equal to 90% of the sum of 2.50% of his average highest base compensation or 2.22% of his average highest total compensation, whichever is applicable, multiplied by the number of years of his creditable service, except that such allowance shall not be less than smaller of:
 - (1) 25% of his average highest compensation; or
 - (2) 90% of the service retirement allowance to which he would have become entitled had he continued in service to age 60 without further change in average highest compensation but in any event not less than \$43.20 for each year of his service not in excess of 25.
- c. Annual increases of 3% compounded annually commencing 1 year after retirement.

Ordinary Death Benefit:

Condition for Benefit: Upon the death of a member in service, a benefit is paid to the designated beneficiary, if living, otherwise to the surviving spouse, children or certain other dependents.

Amount of Benefit: In the event of death, all contributions made by the member with interest are returned to the estate or designated beneficiary. In addition, a lump sum payment is made from the contributions of the City equal to 50% of the compensation received by the member during the year immediately preceding his death provided the member had at least eighteen months of service.

Section 4.3

Survivor Death Benefits:

Condition for Benefit: Upon the death of a member in service with survivors, including a member on leave of absence without pay for a period of not more than one year, with eighteen months or more of service, a monthly benefit is paid unless the member is in the building crafts. Building crafts participants are not entitled to Survivor Death Benefits.

<u>Amount of Monthly Benefit:</u>	<u>2004</u>	<u>2003</u>
Unmarried widow (or widower) and one child under 18	\$521.67	\$506.48
Unmarried widow (or widower) and two or more unmarried children under 18	\$707.16	\$686.56
Widow (or widower) at age 50 (if spouse had 15 or more years of service)	\$260.84	\$253.24
Widow (or widower) at age 62 (if spouse had less than 15 years of service)	\$260.84	\$253.24
One unmarried orphan under 18	\$260.84	\$253.24
Two unmarried orphans under 18	\$521.67	\$506.48
Three or more unmarried orphans under 18	\$707.16	\$686.56
One dependent parent	\$185.47 Min. \$260.84 Max.	\$180.07 Min. \$253.24 Max.
Two dependent parents	\$260.84 Min. \$521.67 Max.	\$253.24 Min. \$506.48 Max.

Beginning in 2000 the survivor benefits are indexed annually by 3% per year.

Section 4.3

Retirement Death Benefit:

Upon the death of a retired member, a lump sum benefit of \$7,500 is paid to the designated beneficiary, if living, otherwise to the surviving spouse, children or certain other dependents.

In addition, all contributions made by the member together with interest prior to retirement, in excess of retirement allowance payments received prior to death, are paid to such beneficiary, provided, however, the member has not elected an optional retirement allowance as hereinafter described.

Return of Contribution:

Upon the withdrawal of a member prior to retirement, the entire amount of the employee contributions with interest at 2% per annum is returned to him upon the participant's election.

Special Privileges:

Upon retirement a member may elect to receive the actuarial equivalent of the retirement allowance in any one of the optional forms described below. Effective December 22, 1971 members over age 60 and members who have completed 20 years of service, including members on deferred retirement, may elect, prior to retirement, any one of the optional forms. In the event of death before retirement the person designated shall receive the same benefit as would have been received if the member had retired the day before death. However, in event of such death, the optionee will not be entitled to an optional allowance until the date the deceased member would have reached age 55 with 25 years of service or age 60 with 20 years of service.

Option 1: Reduced retirement allowance payment with the provisions that, at death, the amount of the allowance shall be continued throughout the life of the designated beneficiary at the time of this election of the option.

Option 2: Reduced retirement allowance payments with the provision that, at death, one-half of the amount of the allowance shall be continued throughout the life of the designated beneficiary at the time of the election of this option.

Option 3: Reduced retirement allowance payments with the provision that, at the first death of the member or the designated beneficiary at the time of the election of this option, two-thirds of the amount of the allowance shall be continued throughout the life of the survivor.

Option 4: Reduced retirement allowance payments with the provisions that, at the first death of the member or designated beneficiary at the time of the election of this option, 80% of the amount of the allowance shall be continued throughout the life of the survivor.

In the event of the death of a member in service who was eligible to retire and who is survived by a spouse who was designated as sole primary beneficiary, such spouse may elect to receive the Option 1 allowance described above.

Section 4.3

Hospital and Surgical Insurance, including Dental and Vision Benefits:

All retired members and those who are receiving survivor benefits are entitled to have their Anthem Blue Cross-Blue Shield benefits, including dental and vision coverage paid by the System. Upon the death of a retired member for whom an option 1, 2, 3, or 4 is in effect, the designated beneficiary shall continue to be covered for such hospital and surgical benefits. Dental and Vision benefits are subject to a cap of \$1,000 per year for dental benefits and \$100 per year for vision.

Moreover, when benefits under this coverage would be reduced by reason of the retired member's eligibility for hospital and medical benefits under federal Social Security laws, the System will pay the federal Medicare Part B premium.

To be eligible for these benefits, the member must have earned 15 years credited service at the time of termination, or terminate after age 60 with 5 years credited service.

For members who are hired after January 8, 1997, the plan will provide medical benefits in accordance with the following schedule:

- 100% of full cost if age plus service at termination exceeds 90
- 75% of full cost if age plus service at termination exceeds 80 but is less than 90
- 50% of full cost if age plus service at termination exceeds 70 but is less than 80
- 25% of full cost if age plus service at termination exceeds 60 but is less than 70
- 0% of full cost if age plus service at termination is less than 60

Contributions:

By Member: Each member, commencing January 1, 1978, contributes at a rate of 7% of the salary used to compute retirement benefits until his retirement.

By Employers: The sponsoring employer makes annual contributions based on member's salaries so that, when members become eligible for benefits, reserves will have been accumulated adequate to provide the pension and other benefits payable by the plan on account of creditable service.

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