

**LABORERS' & RETIREMENT BOARD EMPLOYEES'  
ANNUITY AND BENEFIT FUND OF CHICAGO**

**ACTUARIAL STATEMENT**

**December 31, 1998**

Prepared by

**Donald F. Campbell  
Consulting Actuaries**



## INDEX

<b>Actuarial Summary</b> .....	1 - 17
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### **Financial Statements**

Exhibit A	Actuarial Balance Sheet, Assets and Liabilities .....	19 - 21
Exhibit B	Income and Expenditures.....	23 - 25
Exhibit C	Comparative Analysis, Assets and Liabilities .....	27 - 31
Exhibit D	Taxes Receivable .....	32

### **Statistical Data**

Exhibit E	Membership Statistics.....	33
Exhibit F	Salary and Age Statistics .....	34 - 35
Exhibit G	Age and Service Distribution.....	36 - 38
Exhibit H	Annuitants Classified by Age .....	39 - 40
Exhibit I	Health Insurance Supplement Classified by Age .....	41
Exhibit J	New Annuities Granted During 1998 .....	42 - 45
Exhibit K	Retirees and Beneficiaries by Type of Benefit .....	46
Exhibit L	Average Employee Retirement Benefits Payable.....	47
Exhibit M	History of Average Annual Salaries .....	48
Exhibit N	History of New Annuities Granted .....	49
Exhibit O	History of Total Annuities .....	50
Exhibit P	History of Benefit Expenses by Type.....	51 - 52
Exhibit Q	History of Investment Yields.....	53

### **Legislative Changes**

Exhibit R	Legislative Changes .....	55 - 60
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### **Historical Data**

Exhibit S	History of Recommended Employer Multiples and Taxes Levied .....	61
Exhibit T	History of Financial Information .....	62 - 63
Exhibit U	Department of Insurance Disclosure.....	64

### **GASB**

Exhibit V	GASB Disclosure.....	65 - 76
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### **Actuarial Assumptions**

Exhibit W	Summary of Actuarial Methods and Assumptions.....	77 - 80
Exhibit X	Service Table Functions.....	81 - 84
Exhibit Y	Actuarial Experience.....	85 - 86
Exhibit Z	Impact Statement .....	87

### **Plan Summary**

Exhibit AA	Plan Summary.....	89 - 94
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### **Graphs**

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<b>BOOK VALUE SUMMARY</b>	<b>Amount Increase</b>	<b>Percent Increase</b>	<b>1997</b>	<b>1998</b>
<b>Income <sup>1</sup></b>				
Investment Before Expenses	\$ 44,153,296	28.25%	\$ 156,275,504	\$ 200,428,800
Employer and Miscellaneous	395,320	2.05%	19,328,981	19,724,301
Employee	3,355,108	21.88%	15,332,208	18,687,316
<b>Total</b>	<b>47,903,724</b>	<b>25.09%</b>	<b>190,936,693</b>	<b>238,840,417</b>
<b>Outgo <sup>1</sup></b>				
Refunds, Benefits, Expense	\$ 12,422,507	20.30%	\$ 61,196,664	\$ 73,619,171
<b>Excess of Income Over Outgo</b>	<b>35,481,217</b>	<b>27.35%</b>	<b>129,740,029</b>	<b>165,221,246</b>
<b>Active Participants <sup>2</sup></b>	<b>(123)</b>	<b>(3.17)%</b>	<b>3,876</b>	<b>3,753</b>
<b>Inactive Participants</b>	<b>(27)</b>	<b>(1.56)%</b>	<b>1,731</b>	<b>1,704</b>
<b>Beneficiaries</b>				
Employee	351	14.29%	2,457	2,808
Spouse	1	0.07%	1,413	1,414
Disabilities	(33)	(22.76)%	145	112
Children	10	13.70%	73	83
<b>Actuarial Funding-Going Concern</b>				
Liability to Date	\$ 251,961,178	24.21%	\$ 1,040,650,534	\$ 1,292,611,712
Assets-Amortized Cost	165,221,245	13.72%	1,204,439,298	1,369,660,543
Unfunded Liability	86,739,933	(52.96)%	(163,788,764)	(77,048,831)
Funded Ratio	(9.78)%	(8.45)%	115.74%	105.96%
Actuarially Determined Contribution	9,297,895	108.82%	8,544,587	17,842,482
Deficiency (Excess)	14,228,988	(55.08)%	(25,832,768)	(11,603,780)
Required Employer Multiple	0.00	0.00%	0.00	0.00
<b>Termination</b>				
Liability	\$ 294,096,642	44.91%	\$ 654,864,580	\$ 948,961,222
Cost (Excess) on Termination	128,875,396	(23.45)%	(549,574,717)	(420,699,321)
Quick Ratio	(39.59)%	(21.53)%	183.92%	144.33%
<b>Investment <sup>3</sup></b>				
Invested Assets (Amortized Cost)	\$ 81,708,608	7.50%	\$ 1,089,108,614	\$ 1,170,817,222
Invested Assets (Market Value)	128,777,026	10.00%	1,288,120,360	1,416,897,386
Invested Assets (Actuarial Value)	118,796,579	9.80%	1,212,755,115	1,331,551,694
<b>Miscellaneous</b>				
Salary Roll	\$ (548,832)	(0.32)%	\$ 171,175,944	\$ 170,627,112
Average Salary	1,301	2.95%	44,163	45,464
<b>Present Value of Benefits</b>	<b>\$ 281,615,162</b>	<b>22.69%</b>	<b>\$ 1,241,142,213</b>	<b>\$ 1,522,757,375</b>

<sup>1</sup> Investment income is not net of investment expense. Investment expense is included under outgo.

<sup>2</sup> 1998 active participants does not include approximately 340 seasonal employees.

<sup>3</sup> Invested assets listed after excluding Cash and Cash Equivalents.

Book Assets are shown at amortized cost.

<b>MARKET VALUE SUMMARY</b>	<b>Amount Increase</b>	<b>Percent Increase</b>	<b>1997</b>	<b>1998</b>
<b>Income <sup>1</sup></b>				
Investment Before Expenses	\$ 29,278,831	13.42%	\$ 218,218,388	\$ 247,497,219
Employer and Miscellaneous	395,320	2.05%	19,328,981	19,724,301
Employee	3,355,108	21.88%	15,332,208	18,687,316
<b>Total</b>	<b>33,029,259</b>	<b>13.06%</b>	<b>252,879,577</b>	<b>285,908,836</b>
<b>Outgo <sup>1</sup></b>				
Refunds, Benefits, Expense	\$ 12,422,507	20.30%	\$ 61,196,664	\$ 73,619,171
<b>Excess of Income Over Outgo</b>	<b>20,606,752</b>	<b>10.75%</b>	<b>191,682,913</b>	<b>212,289,665</b>
<b>Active Participants <sup>2</sup></b>	<b>(123)</b>	<b>(3.17)%</b>	<b>3,876</b>	<b>3,753</b>
<b>Inactive Participants</b>	<b>(27)</b>	<b>(1.56)%</b>	<b>1,731</b>	<b>1,704</b>
<b>Beneficiaries</b>				
Employee	351	14.29%	2,457	2,808
Spouse	1	0.07%	1,413	1,414
Disabilities	(33)	(22.76)%	145	112
Children	10	13.70%	73	83
<b>Actuarial Funding-Going Concern</b>				
Liability to Date	\$ 251,961,178	24.21%	\$ 1,040,650,534	\$ 1,292,611,712
Assets-Market Value	212,289,664	15.13%	1,403,451,043	1,615,740,707
Unfunded Liability	39,671,514	(10.93)%	(362,800,509)	(323,128,995)
Funded Ratio	(9.86)%	(7.31)%	134.86%	125.00%
Actuarially Determined Contribution	0	0.00%	0	0
Deficiency (Excess)	10,430,826	(24.90)%	(41,891,917)	(31,461,091)
Required Employer Multiple	0.00	0.00%	0.00	0.00
<b>Termination</b>				
Liability	\$ 294,096,642	44.91%	\$ 654,864,580	\$ 948,961,222
Cost (Excess) on Termination	81,806,978	(10.93)%	(748,586,463)	(666,779,485)
Quick Ratio	(44.05)%	(20.55)%	214.31%	170.26%
<b>Investment <sup>3</sup></b>				
Invested Assets (Amortized Cost)	\$ 81,708,608	7.50%	\$ 1,089,108,614	\$ 1,170,817,222
Invested Assets (Market Value)	128,777,026	10.00%	1,288,120,360	1,416,897,386
Invested Assets (Actuarial Value)	118,796,579	9.80%	1,212,755,115	1,331,551,694
<b>Miscellaneous</b>				
Salary Roll	\$ (548,832)	(0.32)%	\$ 171,175,944	\$ 170,627,112
Average Salary	1,301	2.95%	44,163	45,464
<b>Present Value of Benefits</b>	<b>\$ 281,615,162</b>	<b>22.69%</b>	<b>\$ 1,241,142,213</b>	<b>\$ 1,522,757,375</b>

<sup>1</sup> Investment income is not net of investment expense. Investment expense is included under outgo.

<sup>2</sup> 1998 active participants does not include approximately 340 seasonal employees.

<sup>3</sup> Invested assets listed after excluding Cash and Cash Equivalents.

Market Assets are shown at "pure market" value.

<b>ACTUARIAL ASSET VALUE SUMMARY</b>	<b>Amount Increase</b>	<b>Percent Increase</b>	<b>1997</b>	<b>1998</b>
<b>Income <sup>1</sup></b>				
Investment Before Expenses	\$ 55,212,422	30.29%	\$ 182,304,349	\$ 237,516,771
Employer and Miscellaneous	395,320	2.05%	19,328,981	19,724,301
Employee	3,355,108	21.88%	15,332,208	18,687,316
<b>Total</b>	<b>58,962,850</b>	<b>27.18%</b>	<b>216,965,538</b>	<b>275,928,388</b>
<b>Outgo <sup>1</sup></b>				
Refunds, Benefits, Expense	\$ 12,422,507	20.30%	\$ 61,196,664	\$ 73,619,171
<b>Excess of Income Over Outgo</b>	<b>46,540,343</b>	<b>29.88%</b>	<b>155,768,874</b>	<b>202,309,217</b>
<b>Active Participants <sup>2</sup></b>	<b>(123)</b>	<b>(3.17)%</b>	<b>3,876</b>	<b>3,753</b>
<b>Inactive Participants</b>	<b>(27)</b>	<b>(1.56)%</b>	<b>1,731</b>	<b>1,704</b>
<b>Beneficiaries</b>				
Employee	351	14.29%	2,457	2,808
Spouse	1	0.07%	1,413	1,414
Disabilities	(33)	(22.76)%	145	112
Children	10	13.70%	73	83
<b>Actuarial Funding-Going Concern</b>				
Liability to Date	\$ 251,961,178	24.21%	\$ 1,040,650,534	\$ 1,292,611,712
Assets-Actuarial Value	202,309,215	15.23%	1,328,085,799	1,530,395,014
Unfunded Liability	49,651,962	(17.27)%	(287,435,265)	(237,783,303)
Funded Ratio	(9.22)%	(7.22)%	127.62%	118.40%
Actuarially Determined Contribution	4,872,098	0.00%	0	4,872,098
Deficiency (Excess)	9,803,191	(28.52)%	(34,377,355)	(24,574,164)
Required Employer Multiple	0.00	0.00%	0.00	0.00
<b>Termination</b>				
Liability	\$ 294,096,642	44.91%	\$ 654,864,580	\$ 948,961,222
Cost (Excess) on Termination	91,787,427	(13.63)%	(673,221,219)	(581,433,792)
Quick Ratio	(41.53)%	(20.48)%	202.80%	161.27%
<b>Investment <sup>3</sup></b>				
Invested Assets (Amortized Cost)	\$ 81,708,608	7.50%	\$ 1,089,108,614	\$ 1,170,817,222
Invested Assets (Market Value)	128,777,026	10.00%	1,288,120,360	1,416,897,386
Invested Assets (Actuarial Value)	118,796,579	9.80%	1,212,755,115	1,331,551,694
<b>Miscellaneous</b>				
Salary Roll	\$ (548,832)	(0.32)%	\$ 171,175,944	\$ 170,627,112
Average Salary	1,301	2.95%	44,163	45,464
<b>Present Value of Benefits</b>	<b>\$ 281,615,162</b>	<b>22.69%</b>	<b>\$ 1,241,142,213</b>	<b>\$ 1,522,757,375</b>

<sup>1</sup> Investment income is not net of investment expense. Investment expense is included under outgo.

<sup>2</sup> 1998 active participants does not include approximately 340 seasonal employees.

<sup>3</sup> Invested assets listed after excluding Cash and Cash Equivalents.

Actuarial asset values are calculated using a five year smoothed average between book and market asset values.

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May 27, 1999

The Retirement Board of the  
Laborers' & Retirement Board Employees'  
Annuity and Benefit Fund of Chicago  
Chicago, Illinois

Dear Members of the Board:

This is to certify that the annual statement as of December 31, 1998, of the Laborers' & Retirement Board Employees' Annuity and Benefit Fund of Chicago is, to the best of our knowledge and belief, a true and correct statement of the affairs and conditions of said Fund for the calendar year 1998. This statement has been prepared from the unaudited books of the Fund.

### **GASB**

The Governmental Accounting Standards Board (GASB) Statement No. 25, *Financial Reporting for Defined Benefit Pension Plans*, is effective for periods beginning after June 15, 1996. The purpose of the Statement is to make the pension information more understandable and more useful. This statement is measuring the plan's funded status in accordance with the plan's funding policy under the GASB Statement No. 25 rules as well as under the traditional book and market valuation methods.

The Actuarial Asset Value, a smoothed market related value of assets technique, is calculated by taking the asset cost times the average ratio of the market value to cost for the invested assets for the current year and the prior four years.

A level dollar amortization of the actuarial unfunded liability with an open amortization period of 40 years is the method used for computing the amortization requirements.

The accounting procedure is outlined in Article 11 of the Illinois Pension Code.

The method of financing the system and the actuarial assumptions and methods used in the valuation are shown in Exhibit W. The attempt is made to give effect to realistic valuation factors which affect costs. This statement has been prepared in accordance with generally accepted actuarial principles and practice.

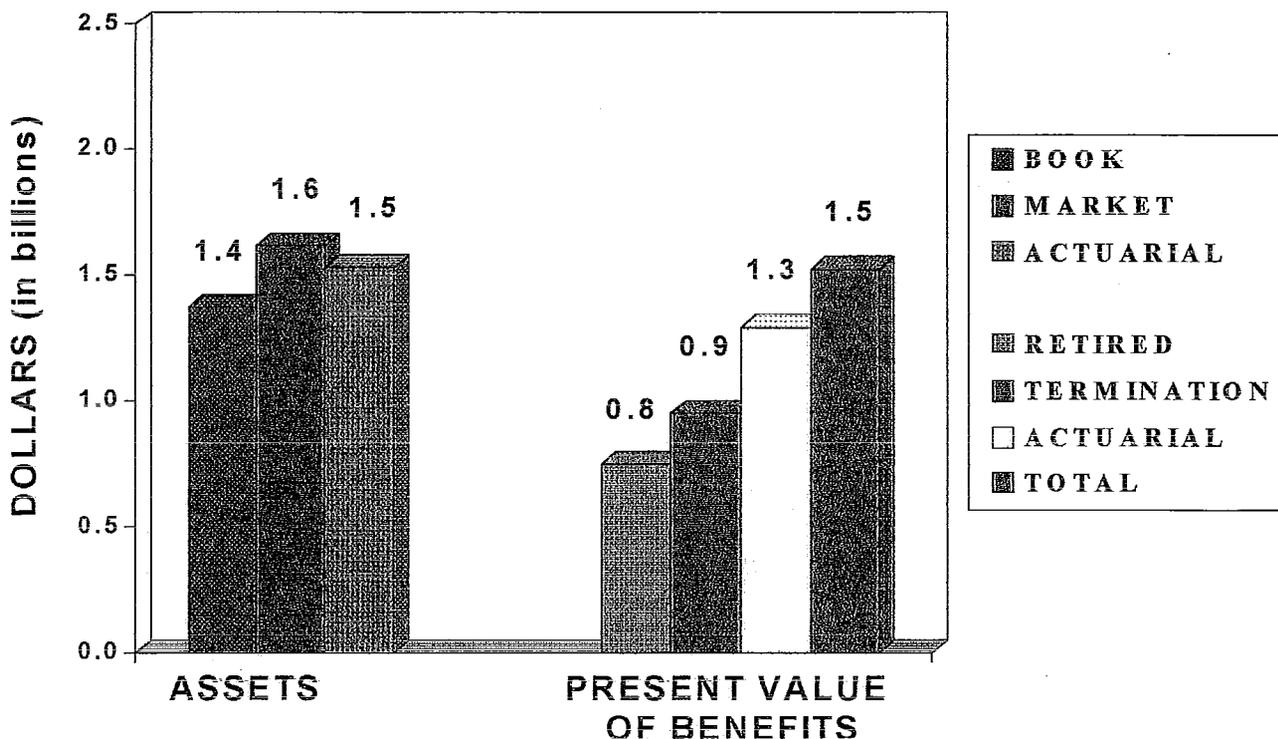
The costs for each of the alternative methods of funding the unfunded accrued liability, as required by the Illinois Pension Code Section 5/1A-102, are shown in this report. These include:

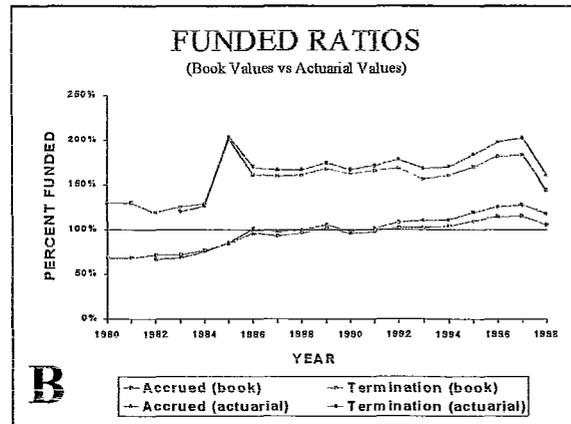
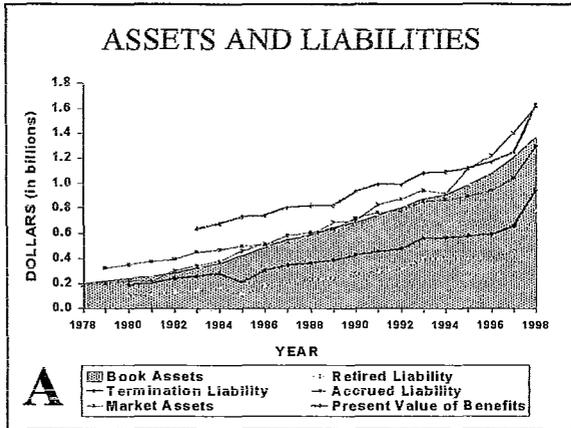
1. interest only on the unfunded liability;
2. the level annual amount required to amortize the unfunded accrued liability over a period not exceeding 40 years; and
3. the amount required for the current year to amortize the unfunded accrued liability over a period not exceeding 40 years as a level percentage of payroll.

The actuarial present value of "Credited Projected Benefits" required by the old GASB No. 5 (used for reporting to the Illinois Department of Insurance, but not funding) has been moved to Exhibit U. The "Entry Age Normal" method has been retained for funding. This report includes the 1998 ERI experience.

This report contains results with assets valued at Book, Market, and Actuarial values. It is intended to meet the Insurance Department requirements, the statutory reporting requirements, and the GASB No. 25 reporting requirements.

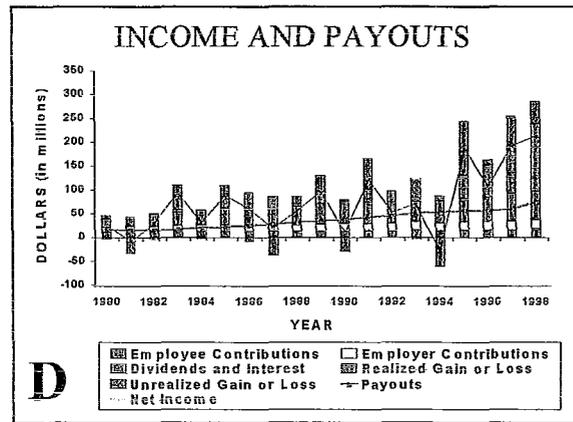
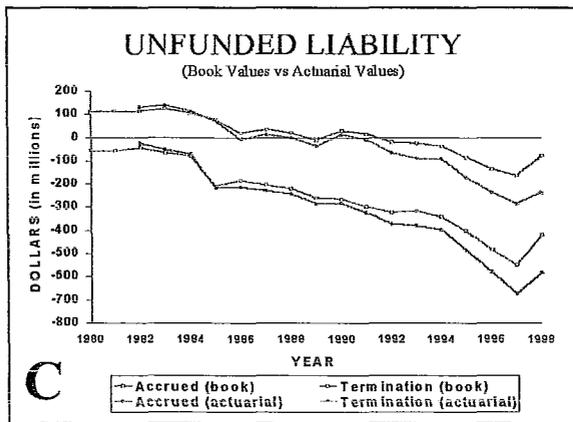
## LABORERS'





Graph A, the graph of actuarial assets and actuarial accrued liabilities, illustrates the Fund's position with respect to asset growth and liability growth for the various ways of measuring the liabilities. Please note that the difference between the assets and the actuarial accrued liability is what one calls the unfunded actuarial accrued liability. This fund has no unfunded liability.

Graph B, the graph of funded ratios, displays the ratio of actuarial assets to actuarial accrued liabilities for the various measures of liability.



Graph C, the graph of unfunded actuarial accrued liabilities, displays the liabilities for the different measures of liability with actuarial assets.

Graph D illustrates the income of the Fund--investment income, plus employer contributions, plus employee contributions--and the current payouts of the Fund benefits, refunds, and expenses. The excess or net of income over payouts goes to build reserves for future benefit payments.

## Actuarial Assumptions

Actuarial assumptions required by GASB No. 25 must take into consideration anticipated future experience as well as past experience. As a guide to our thinking, we consulted two recent studies in an attempt to learn what interest and salary scale assumptions are being used to anticipate the future in other public and private pension fund valuations.

Greenwich Reports' 1999 survey, titled *How Funds Are Coping with "Uncertain Markets,"* shows that the mean actuarial interest rate assumption for public funds (based on 285 public funds surveyed in 1998) was 8.2% for 1996, 8.2% for 1997, and 8.1% for 1998. The corresponding salary increase assumption for public funds was 5.4% for 1996, 5.1% for 1997 and 5.0% for 1998. For 1998, the average monthly benefit paid to all public retirees was \$1,080.

Another report was consulted, the *1998 Yearbook of Stocks, Bonds, Bills and Inflation* published by Ibbotson Associates, Chicago, Illinois. We find the following results based on historical data for the past 73 years for the period 1926 through 1998.

Stocks, Bonds, or Bills	Total Annual Return	Inflation	Net
Common Stocks	11.2%	3.1%	8.1%
Small Stocks	12.4	3.1	9.3
Long-Term Corporate Bonds	5.8	3.1	2.7
Long-Term Government Bonds	5.3	3.1	2.2
Intermediate Term Government Bonds	5.3	3.1	2.2
U.S. Treasury Bills	3.8	3.1	0.7
<b>Inflation for the past:</b>			
10 years	1989-1998	3.1%	
	1990s	1990-1998	3.0
	1980s	1980-1989	5.1
	1970s	1970-1979	7.4
	1960s	1960-1969	2.5
	1950s	1950-1959	2.2
	1940s	1940-1949	5.4
	1930s	1930-1939	(2.0)
	1920s	1926-1929	(1.1)

Based on a portfolio made up of 45% in long-term corporate bonds and 55% in common stocks, the annual return for the 73-year period would be approximately 8.6% with a net return after inflation of 5.5%.

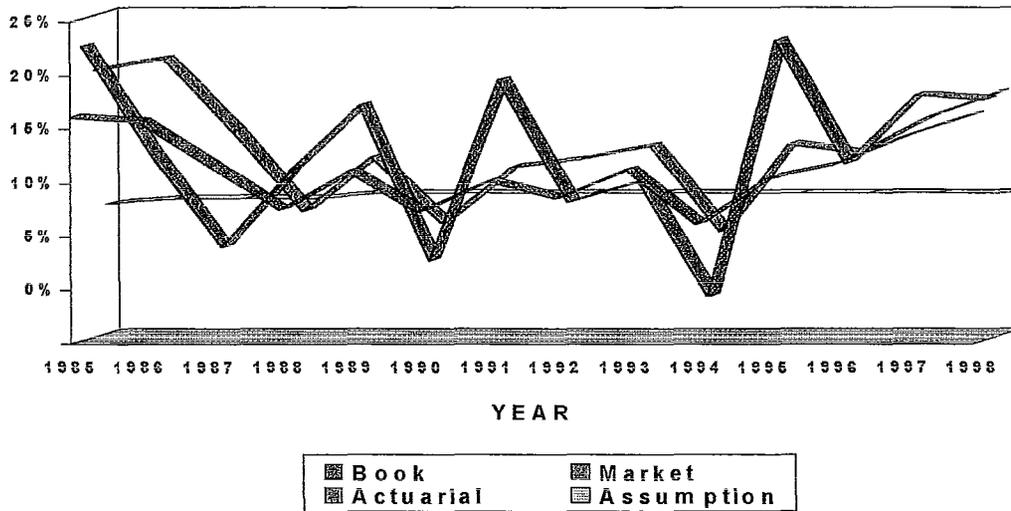
Based on these studies, it is our opinion that, for this fund, an 8% future interest assumption would be a reasonable rate for valuation purposes and a 5% per year salary scale would also be reasonable. These assume an underlying 3% inflation. These assumptions take into consideration generally expected future investment earnings and the generally accepted views on future salary increases for our national economy. They could be characterized as being middle of the road.

The liabilities and costs in this report are based in part on an 8% per year interest assumption (net of investment expense) and a 5% per year salary scale assumption. We have adjusted the retirement and withdrawal rates to reflect more recent trends including 1998 ERI experience and anticipated 10 year deferred vesting. All other assumptions are the same as those used for the last report. We have included the \$850 and \$800 minimums, effective January 1, 1999.

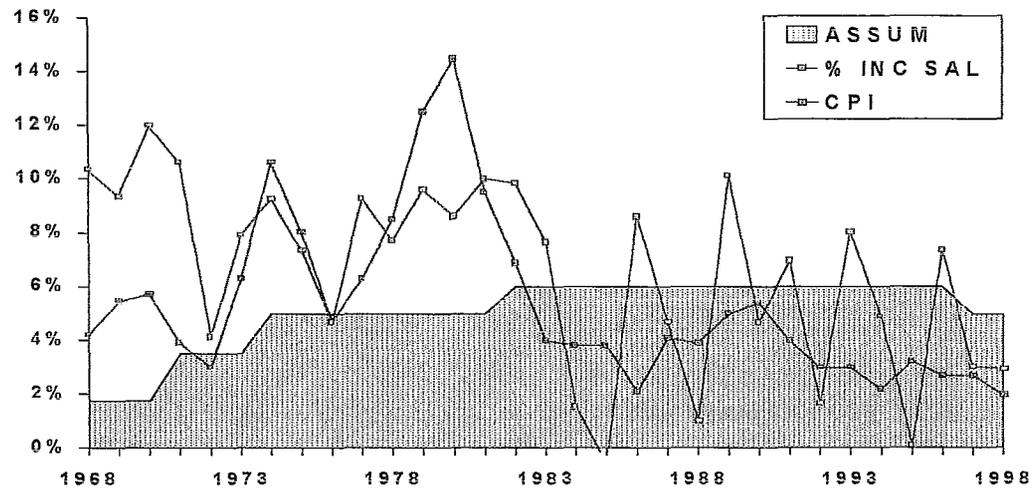
In our opinion, each of these actuarial assumptions is reasonable, taking into account fund experience and future expectations, and represents the best estimate of anticipated experience.

# YIELDS ON TOTAL ASSETS

(Compared to Actuarial Assumption)



# ASSUMPTIONS VS SALARY INCREASE AND CHICAGO CONSUMER PRICE INDEX



## Actuarial Asset Value, reflecting smoothed market value

The actuarial asset value is computed as a five year smoothed average ratio of market over book value of invested assets (excluding cash and cash equivalents), and is based on unaudited figures.

See schedule in Exhibit V of this report for the methodology used.

Date	Total Assets at Book Value	Total Assets at Market Value	Total Assets at Actuarial Value
12/31/96	\$ 1,074,699,269	\$ 1,211,768,131	\$ 1,172,316,925
12/31/97	\$ 1,204,439,298	\$ 1,403,451,043	\$ 1,328,085,799
12/31/98	\$ 1,369,660,543	\$ 1,615,740,707	\$ 1,530,395,014

## Actuarial Obligations of the Fund

The value of all future pension payments, calculated using the actuarial assumptions contained in this report, is the sum of payments to two major groups of beneficiaries.

### 1. Retired Lives

For those currently receiving known benefits, i.e., current retirees, widows, widowers, and children, the value is determined based on estimated future longevity with the future benefit payments discounted to the present time at the assumed investment earnings rate.

Group	Number	Present Value of Future Benefits
Employee Annuity (with Compound Increase)	2,808	\$ 573,675,729
Future Widow/er Benefit	1,931	84,326,018
Health Insurance Supplement	2,722	13,013,164
Widow/er Annuity	1,414	100,199,572
Total Retired Reserve		\$ 771,214,483

## 2. Active Lives

The value of future payments for active employees who will receive benefits in the future is estimated, since the amount of pension is only known at the actual time of retirement. This estimate is made using various actuarial assumptions as to future salary increases; probable retirement age; and chance of death, withdrawal, or disablement before retirement. For active employees, the goal is to have enough assets on hand at retirement to pay for all future benefits promised. To provide for an orderly accumulation of these required assets, an actuarial funding method is used. Using the "Entry Age Normal" funding method, assets are allocated as a level amount (expressed as a percentage of salary) over the employee's working lifetime. These allocated costs are called "normal costs" and are sufficient, if set aside each year, for a newly hired employee to accumulate the amount required to fully fund his or her benefits when and if he or she retires. For an employee who has completed half of his or her working lifetime, roughly half of the required retirement assets should have been accumulated. The actuarial reserve (amount of assets needed now) is then the present value of future benefits less the value of future normal costs to be paid.

Benefit	Present Value of Benefits	
Employee Annuity (with Compound Increase)	\$	574,874,558
Future Widow/Widower Benefit		49,412,306
Health Insurance Supplement		8,884,646
Widow/Widower of Employees, Dying in Service		17,103,882
Miscellaneous: Refunds, Children, etc.		101,267,500
Total Active		<u>751,542,892</u>
Total Active and Retired Present Value of Benefits	\$	1,522,757,375
Less Present Value of Future Normal Costs		<u>\$ 230,145,663</u>
Net Active Reserve		521,397,229
Net Active Reserve and Retired		1,292,611,712
Less Present Actuarial Asset Values		<u>1,530,395,014</u>
Surplus	\$	(237,783,303)

The difference between the sum of the actuarial reserve for active and retired lives (sometimes called the "Actuarial Accrued Liability") and the present assets is called the "Unfunded Actuarial Accrued Liability." If assets exceed liability, there is a surplus. The unfunded liability depends upon the benefits, the characteristics of the covered group of employees and retirees, the actuarial assumptions, and the actuarial funding method. The unfunded liability can be thought of as the amount of assets that will be needed in future years to provide for all future benefits payable when added to the future normal costs determined by the actuarial funding method.

## Actuarial Balance

For the pension fund to be in actuarial balance, the present value of all benefits payable in the future must equal the sum of present assets plus present value of all future contributions.

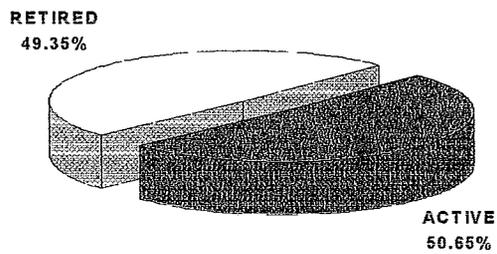
Future contributions from the employee and employer must provide for the payment of normal costs and for amortization of the unfunded liability on some reasonable basis.

Future Contributions	Present Value	% of Total
Present Actuarial Assets	\$ 1,530,395,014	100.50%
Future Employee Contributions	147,991,549	9.72%
Future Employer Contributions	142,071,887	9.33%
Deficiency (Excess)	(297,701,075)	(19.55)%
<b>Total</b>	<b>\$ 1,522,757,375</b>	<b>100.00%</b>

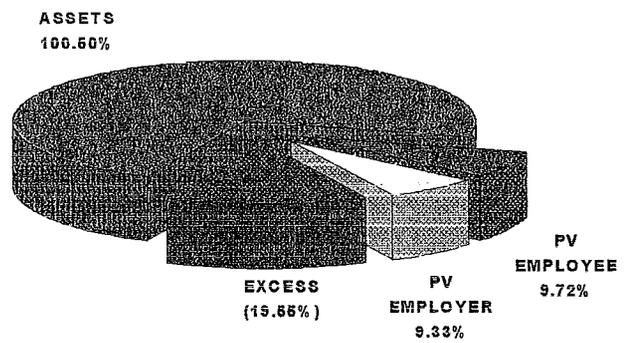
Present Value of Future Benefits	Actuarial Assets	% of Total	Actuarial Liabilities	% of Total
Benefits				
Retired Lives			\$ 771,214,483	50.65%
Active Lives			751,542,892	49.35%
Present Actuarial Assets	\$1,530,395,014	100.50%		
Normal Costs	230,145,663	15.11%		
Unfunded Liability (Surplus)	(237,783,303)	(15.62)%		
<b>Total</b>	<b>\$1,522,757,375</b>	<b>100.00%</b>	<b>\$1,522,757,375</b>	<b>100.00%</b>

**Graph E** (below) illustrates:

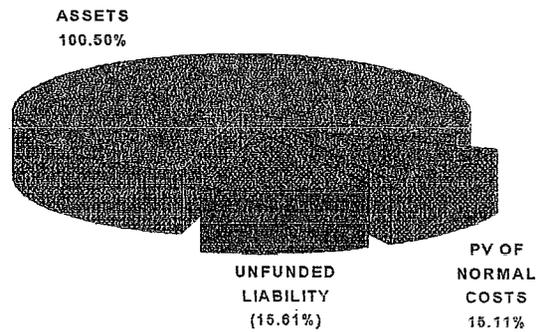
1. Actuarial Present Value of Benefits
2. Actuarial Assets
3. Actuarial Cost Method



Actuarial Present Value of Benefits



Actuarial Assets



Actuarial Cost Method

# Three Methods of Financing the Unfunded Liability

## 1. Normal Cost Plus Interest Method

This is the method of valuation that was used in reports prior to 1997. It is intended to continue the current provisions of the Article governing the Fund in full force and effect on a permanent basis, and in the amount required each year to keep the unfunded liability from increasing if all assumptions are realized.

The normal cost plus interest only method of funding is that recommended by the former Illinois Public Employees' Pension Laws Commission. It was also the minimum required for private pension plans for IRS qualification before ERISA.

## 2. Normal Cost Plus 40 Year Amortization Method, used to compute the GASB No. 25 Annual Required Contribution

GASB No. 25 now requires an amortization of the unfunded liability as does ERISA's minimum funding standards which require the initial unfunded liability existing on January 1, 1976 be amortized over a 40 year period. We have calculated the cost of amortizing the existing unfunded liability.

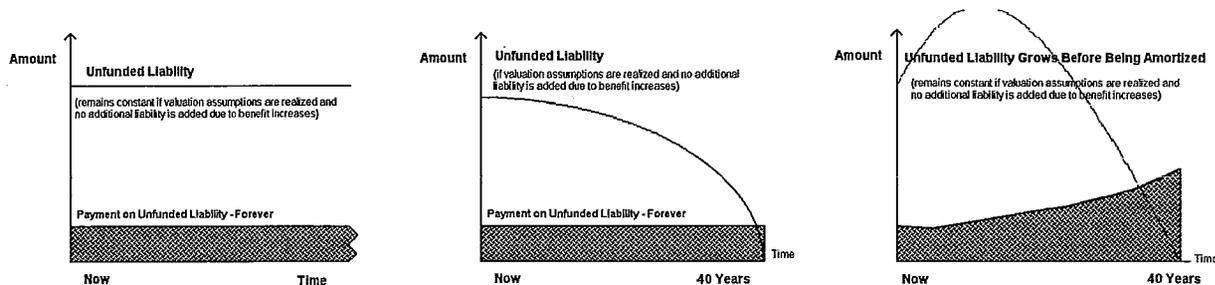
Both of these cost methods, the normal cost plus interest method and the normal cost plus 40 year amortization method, express the past service costs as a level annual dollar amount. It assumes that there will be a stable membership with a growing payroll. Consequently, as the total payroll increases in the future, the level annual amount becomes a decreasing percent of the total payroll.

Under both methods, level dollar amounts represent a greater percent of payroll initially and a decreasing percent of payroll as future payrolls increase.

## 3. Level Annual Percent of Payroll Method

An alternative method for funding that is receiving increased attention for public employee pension plans is a method that sets the funding standard cost objective as a level annual percent of payroll rather than as a level annual amount. This method will result in increasingly greater dollar amounts each year as payrolls increase.

This constant percent of payroll method is not an acceptable method under ERISA, but is permitted under GASB No. 25. It may be more acceptable in the future in view of the presumably permanent nature of public retirement systems with a constant flow of new entrants and the desire to place a relatively constant tax burden (as percentage of salary) on future generations of taxpayers. Please note that if this amount is recomputed each year with the same "open" amortization period, the unfunded liability will never be amortized.



For the Retirement Board's guidance, we have estimated the financial effects of different amortization methods. The costs under these funding methods are contingent upon all actuarial assumptions being met and continued active membership at the same level. These three methods meet the requirements set forth in Illinois Compiled Statutes, Chapter 40, Section 5/1A-102. The results are given in the following table:

Actuarial Assets with Various Amortization Methods	Required 1999 Tax Levy	Ultimate Required Multiple <sup>1</sup>	Unfunded Liability Will <sup>1</sup>	Portion Required for Amortization of Unfunded Liability <sup>1</sup>
1. Normal Cost Plus Interest Only	N/A	N/A	Remain constant at \$0	\$0
2. GASB No. 25 40-year level dollar amortization	N/A	N/A	Remain constant at \$0	\$0
3. Normal Cost Plus 40-Year Level % of Payroll Increasing 3% a Year (Inflation Only)	N/A	N/A	Remain constant at \$0	\$0
4. Present Law	\$14,676,898	1.00		

<sup>1</sup> Assuming all valuation assumptions are realized and no future benefit liberalization.

The preceding comparative table shows than no employer contribution is needed under any of the three methods.

In determining funding policy it is essential to provide a margin of safety for unfavorable operating experience such as salaries over anticipated salaries, decreasing age of retirement, increasing longevity, and declining fund membership.

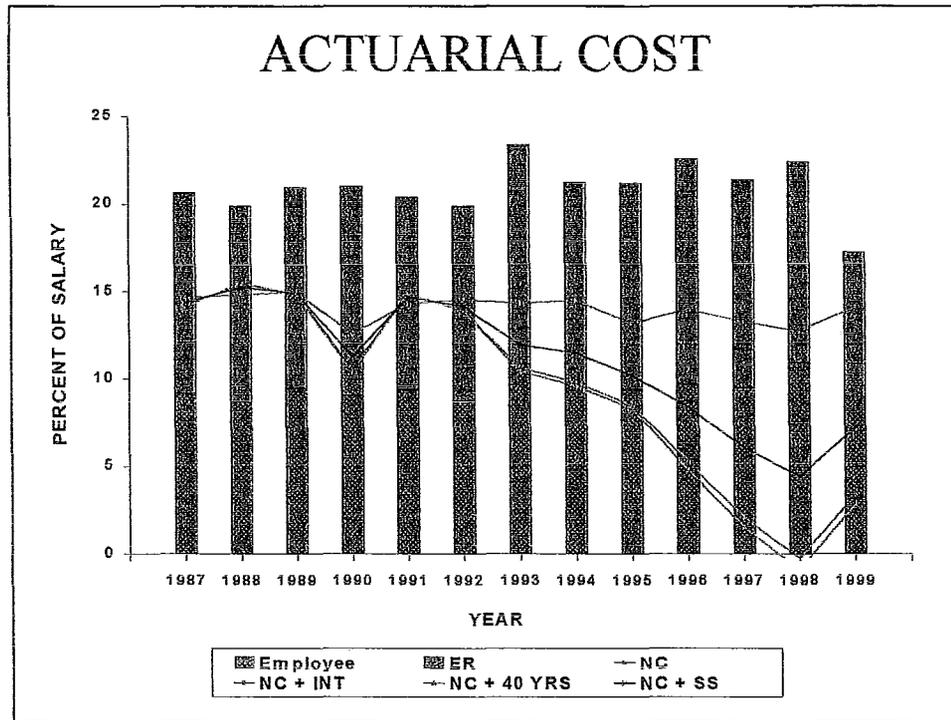
### **Actuarially Determined Contribution and Employer Annual Required Contribution**

Based on the normal cost plus 40 year level dollar open period method of funding of the unfunded liability determined using actuarial assets, we find that the City tax levy for 1999 should not be necessary. This amount is based on an annual payroll (as of December 31, 1998) of \$170,627,112 and an active membership of 3,753 persons. The detail is shown in the table that follows. The estimated employee contributions assume salary increases.

Detail of Annual/City Contribution	Last Year Projection For 1998	This Year Projection For 1999	Last Year % of Salary	This Year % of Salary	Last Year Dollars Per Active Member	This Year Dollars Per Active Member
1. Normal Cost for Current Service	\$ 21,761,436	\$ 24,059,897	12.71%	14.10%	\$ 5,616	\$ 6,411
2. 40-Yr Level Dollar Amortization of the Unfunded Liability	(23,194,439)	(19,187,799)	(13.55)%	(11.25)%	(5,984)	(5,113)
3. Actuarially Determined Contribution (1+2)	\$ 0	\$ 4,872,098	0.00%	2.86%	\$ 0	\$ 1,298
4. Employee Contributions (est)	\$ 15,405,835	\$ 15,356,440	9.00%	9.00%	\$ 3,975	\$ 4,092
5. Annual Required Contribution of the Employer (ARC) (3-4)	0	0	0	0	0	0
6. Expected Net Employer Contribution from Tax Levy of:						
After a 4% Loss	19,762,000	14,676,898				
	18,971,520	14,089,822	11.08%	8.26%	4,895	3,754
7. Expected Net Annual Deficiency (Excess)	(34,377,355)	(24,574,164)	(20.08)%	(14.40)%	\$ (8,870)	\$ (6,548)
8. Tax Levy Required (Assume 4% Loss)	\$ 0	\$ 0				
9. Required Multiple <sup>1</sup> (@ 40 year Amort.)	0.00	0.00				
10. Present Authorized Multiple	1.37	1.00				

<sup>1</sup> No employer contribution is necessary.

The chart illustrates the history of the annual actuarial cost (composed of current service cost, or normal costs, and past service cost), on the three different amortization methods, to be paid for by the employee and the employer.



Detail of Normal Cost	Last	This	Last Year	This Year
	Year % of Salary	Year % of Salary	Dollars Per Active Member	Dollars Per Active Member
Retirement Annuity	6.34%	6.61%	\$ 2,798	\$ 3,006
Post-retirement Annuity Increase	1.26%	1.55%	559	702
Post-retirement Spouse Annuity	0.70%	0.72%	307	326
Spouse Annuity for Death in Service	0.38%	0.44%	168	201
Health Insurance	0.11%	0.12%	50	56
Child's Annuity	0.10%	0.13%	42	60
Ordinary Disability	0.59%	0.51%	260	232
Duty Disability	0.39%	0.35%	173	158
Refunds	1.85%	2.61%	818	1,189
Expense of Administration <sup>1</sup>	0.82%	0.87%	364	396
Reciprocal Benefits	0.17%	0.19%	77	85
<b>Total</b>	<b>12.71%</b>	<b>14.10%</b>	<b>\$ 5,616</b>	<b>\$ 6,411</b>

<sup>1</sup> Net of Investment Expense.

## Change in the Unfunded Liability

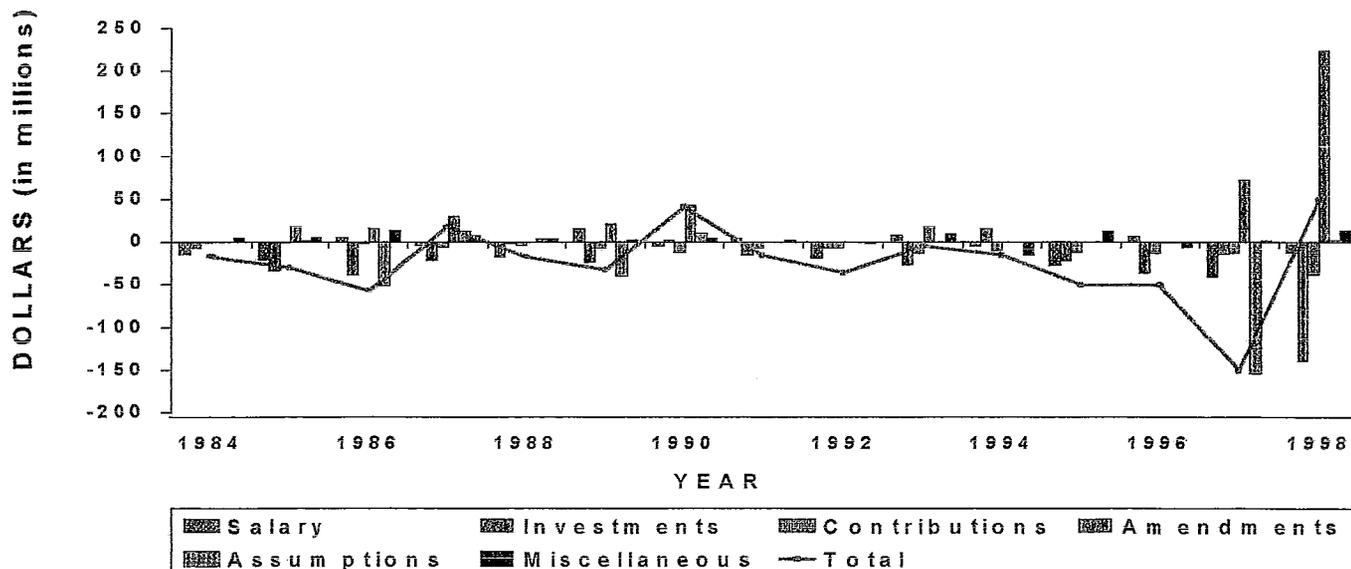
The total unfunded liability, as of December 31, 1998, is \$(237,783,303). As of December 31, 1997, the total unfunded liability was \$(287,435,265).

### Detail of Change in Unfunded Liability

Detail of Change in Unfunded Liability			
Increase in Salaries under 5.0% Assumed		\$ (11,641,586)	Decrease
Investment Yield over 8.0% Assumed		(139,071,209)	Decrease
Annual Contribution:			
1998 Actuarially Determined Contribution	\$	0	
Less Employer Net to Fund 1998 Tax Levy		19,724,301	
Less Employee Contributions for 1998		<u>18,687,316</u>	(38,411,617) Decrease
Miscellaneous Experience:			
Retirement, Death, Withdrawal		13,416,866	Increase
Change in Assumptions: Retirement Rates		1,694,598	Increase
Amendments: \$850/800 Minimums		74,464,767	Increase
Amendments: 10-Year Vesting		5,321,482	Increase
Amendments: Compound Increases		113,041,232	Increase
Amendments: Early Retirement Incentive		<u>30,837,429</u>	Increase
Net Change in Unfunded Liability	\$	49,651,962	Increase

See the historical tabulation in Exhibit T.

## CHANGE IN THE UNFUNDED LIABILITY



## Funded Ratio

The ratio of actuarial assets to accrued liabilities is 118.40% as of December 31, 1998, and was 127.62% as of December 31, 1997. This ratio represents the extent to which present and future benefit promises are secured by present assets.

## Ratio of Active Employees to Annuitants and Beneficiaries

The ratio of active employees to annuitants and beneficiaries is 0.85 as of December 31, 1998, and was 0.95 as of December 31, 1997. This ratio illustrates the relationship between the contributors and the beneficiaries.

## Termination Liability

A measure of plan funding is a comparison of the assets to liabilities for present annuitants and the amount of refundable contributions for active and inactive employees. This amount would be a minimum measure of the cost to terminate the plan as of the valuation date. Beginning in 1994 the ordinary and duty disability benefits are valued as lifetime benefits and are included with the retired liability. Their salary deductions have not been included with the active members.

Termination Liability	1997	1998
Liability for Retired Annuitants, Widows/Widowers, and Spouses of Annuitants	\$ 455,856,814	\$ 771,214,483
Salary Deductions Contributed by Active Fund Members (with Interest)	199,007,766	177,746,739
Total	654,864,580	948,961,222
Actuarial Asset Value	1,328,085,799	1,530,395,014
Excess Upon Termination	\$ 673,221,219	\$ 581,433,792
Quick Ratio	202.80%	161.27%

## GASB Disclosure

GASB No. 25 requires the financial statements to include a "Statement of Net Assets" and a "Statement of Changes In Plan Assets".

GASB No. 25 requires supplementary information to include a "Schedule of Funding Progress" and a "Schedule of Employer Contributions" containing the pension disclosure information.

### Schedule of Funding Progress Restated to Actuarial Asset Values for GASB No. 25

Year	Actuarial Assets (GASB)	Actuarial Accrued Liability	Percentage Funded	Unfunded (Surplus) Actuarial Accrued Liability	Annual Covered Payroll	Unfunded (Surplus) as a % of Covered Payroll
1996	\$1,172,316,925	\$ 936,623,719	125.16%	\$(235,693,206)	\$162,276,840	(145.24%)
1997 <sup>a,b</sup>	\$1,328,085,799	\$1,040,650,534	127.62%	\$(287,435,265)	\$171,175,944	(167.92%)
1998 <sup>a,b</sup>	\$1,530,395,014	\$1,292,611,712	118.40%	\$(237,783,303)	\$170,627,112	(139.36%)

<sup>a</sup> Change in actuarial assumptions.

<sup>b</sup> Change in benefits.

### Employer Required Contributions

Year	Annual Required Contribution (ARC) of the Employer <sup>1</sup>	Required Statutory Basis <sup>2</sup>	Actual <sup>3</sup>	Percent of ARC Contributed
1996	\$ 0	\$ 19,242,432	\$ 19,623,717	N/A
1997	\$ 0	\$ 18,863,712	\$ 19,328,981	N/A
1998	\$ 0	\$ 18,971,520	\$ 19,724,301	N/A

<sup>1</sup> Under Normal Cost plus 40 Year Level-dollar Amortization.

<sup>2</sup> Tax levy after 4% overall loss.

<sup>3</sup> Net tax levy.

Please refer to the GASB section in Exhibit V of this report.

## The Future

A continuous review of the Fund's operating experience and membership is needed, just as it has been needed in the past. The rates of salary increases, rates of retirement and investment earnings are of critical importance in cost estimates. Costs will need to be adjusted as these factors vary.

For example, for every \$1 increase in salary over the 5% increases assumed in the salary scale, the unfunded liability will be increased by about \$3.06. This will be in addition to the additional current annual service cost for every dollar in salary over the 5% salary scale assumed.

These additional costs will be reduced to some extent by the annual amount of investment income earned over the assumed 8.0% used for valuation purposes. The extent of the reduction will depend on the relative amounts of these two items.

The disadvantage of funding methods that use the level percent of payroll funding of past service is that the unfunded liability will continually increase if salaries continue at the predicted rates and if the amortization period is reestablished each year.

Respectfully submitted,



Donald P. Campbell, F.S.A., M.C.A., M.A.A.A.  
Enrolled Actuary No. 96-1498



**Laborers' & Retirement Board Employees'  
Annuity and Benefit Fund of Chicago**

**Actuarial Balance Sheet**

**as of**

**December 31, 1998**

**Assets and Liabilities**

<b>ASSETS</b>		
<b>Actuarial Balance Sheet as of December 31, 1998</b>		
	<b>Book</b>	<b>Market</b>
<b>Cash and Cash Equivalents</b>	\$ 168,026,972.41	\$ 168,026,972.41
<b>Investments</b>		
Bonds	624,974,788.02	636,675,581.55
Common and Preferred Stocks	503,740,322.05	733,300,673.25
Venture Capital	14,472,590.00	15,791,080.00
Real Estate and Mortgages	29,318,555.18	31,130,051.69
Reserve for Trust Account Loss	(1,689,033.00)	0.00
<b>Total Investments</b>	<b>1,170,817,222.25</b>	<b>1,416,897,386.49</b>
<b>Securities Lending Collateral</b>	309,884,952.99	309,884,952.99
<b>Interest Receivable</b>		
Accrued Interest	7,719,636.80	7,719,636.80
Accrued Dividends	703,502.27	703,502.27
<b>Total Interest Receivable</b>	<b>8,423,139.07</b>	<b>8,423,139.07</b>
<b>Taxes Receivable (See Exhibit D)</b>		
Tax Extension	18,284,735.83	18,284,735.83
Replacement Tax from State	2,766,000.00	2,766,000.00
Less Estimate for Loss on Collection	1,944,800.57	1,944,800.57
<b>Net Taxes Receivable</b>	<b>19,105,935.26</b>	<b>19,105,935.26</b>
<b>Other Accounts Receivable</b>		
Salary Deductions Accrued	998,500.90	998,500.90
Active Employee Accounts	232,701.01	232,701.01
Inactive Employee Accounts	73,100.33	73,100.33
Miscellaneous Account Receivable	(223.20)	(223.20)
Due from Broker	2,378,372.83	2,378,372.83
Early Retirement Incentive Accounts Receivable	1,535,205.06	1,535,205.06
<b>Total Accounts Receivable</b>	<b>5,217,656.93</b>	<b>5,217,656.93</b>
<b>Other Assets</b>		
Furniture and Equipment	224,991.90	224,991.90
Accumulated Depreciation	(108,840.36)	(108,840.36)
<b>Total Other Assets</b>	<b>116,151.54</b>	<b>116,151.54</b>
<b>Gross Ledger Assets</b>	<b>1,681,592,030.45</b>	<b>1,927,672,194.69</b>
<b>Less Accounts Payable</b>		
Investment Manager Fees	662,502.54	662,502.54
Miscellaneous Employee Accounts	1,259,663.78	1,259,663.78
Professional Fees	124,368.31	124,368.31
Securities Lending Liability	309,884,952.99	309,884,952.99
<b>Total Accounts Payable</b>	<b>311,931,487.62</b>	<b>311,931,487.62</b>
<b>Net Ledger Assets</b>	<b>\$ 1,369,660,542.83</b>	<b>\$ 1,615,740,707.07</b>

<b>LIABILITIES AND FUND BALANCES</b>		
<b>Actuarial Balance Sheet as of December 31, 1998</b>		
	<b>Book</b>	<b>Market</b>
<b>Annuity Payment Fund Account</b> (Based on 3% Comb. and 4% Amer. Exp.)		
Employee Annuitants	\$ 154,565,228.52	\$ 154,565,228.52
Spouse Annuitants	40,772,206.80	40,772,206.80
Spouses' Annuities Fixed	50,312,481.84	50,312,481.84
<b>Total Annuity Payment Fund</b>	<b>245,649,917.16</b>	<b>245,649,917.16</b>
<b>Salary Deduction Fund Account</b>		
Employees	137,454,482.54	137,454,482.54
Spouses of Employees	31,642,739.74	31,642,739.74
<b>Total Salary Deduction Fund</b>	<b>169,097,222.28</b>	<b>169,097,222.28</b>
<b>City Contribution Fund Account</b>		
Employees	127,018,279.31	127,018,279.31
Spouses of Employees	42,234,826.55	42,234,826.55
<b>Total City Contribution Fund</b>	<b>169,253,105.86</b>	<b>169,253,105.86</b>
<b>Other Reserves</b>		
Supplementary Payment Reserve	69,340.63	69,340.63
<b>Total Other Reserves</b>	<b>69,340.63</b>	<b>69,340.63</b>
<b>Prior Service Fund Account</b> (Based on 3% Comb. and 4% Amer. Exp.)		
Employee Annuitants	470,471,687.80	470,471,687.80
Spouse Annuitants	68,148,112.32	68,148,112.32
Spouses' Annuities Fixed	44,888,200.87	44,888,200.87
Salary Deductions 3% Annuity	15,695,867.44	15,695,867.44
Estimated Excess Liability <sup>1</sup>	109,338,257.43	109,338,257.43
<b>Total Prior Service Fund Account</b>	<b>708,542,125.86</b>	<b>708,542,125.86</b>
<b>Total Liabilities</b>	<b>1,292,611,711.79</b>	<b>1,292,611,711.79</b>
<b>Obligations of Fund for Prior Service Liabilities <sup>1</sup></b>	<b>77,048,831.04</b>	<b>323,128,995.28</b>
<b>Total Net Liabilities and Fund Balances December 31, 1998</b>	<b>\$ 1,369,660,542.83</b>	<b>\$ 1,615,740,707.07</b>

<sup>1</sup> The attached letter of transmittal describes how this liability was determined.



**Laborers' & Retirement Board Employees'  
Annuity and Benefit Fund of Chicago**

**Income - Year 1998**

**Income and Expenditures**

<b>INCOME FOR YEAR 1998</b>		
	<b>Book</b>	<b>Market</b>
<b>Salary Deductions</b>		
<b>Total Contributions by Employee</b>		
Employee	\$ 10,789,648.81	\$ 10,789,648.81
Spouse	2,489,916.29	2,489,916.29
Automatic Increase	829,919.33	829,919.33
Temporary Service and Refund Repayments	368,868.12	368,868.12
Military Service	14,540.10	14,540.10
Miscellaneous Accounts Receivable	107,782.46	107,782.46
Early Retirement Incentive Payments <sup>1</sup>	3,017,429.77	3,017,429.77
Received from Municipal	463,428.33	463,428.33
Ordinary Disability Deductions in Lieu	180,390.81	180,390.81
<b>Total Salary Deductions</b>	<b>18,261,924.02</b>	<b>18,261,924.02</b>
<b>Union Service Payments</b>	<b>5,173.51</b>	<b>5,173.51</b>
<b>Total Contributed by Employee</b>	<b>18,267,097.53</b>	<b>18,267,097.53</b>
<b>Total Contributed by City for:</b>		
Duty Disability Deductions in Lieu	420,218.27	420,218.27
<b>Total Salary Deductions</b>	<b>18,687,315.80</b>	<b>18,687,315.80</b>
<b>City Contributions <sup>2</sup></b>		
Employees	11,082,107.62	11,082,107.62
Spouses of Employees	3,680,862.90	3,680,862.90
Child's Annuity Payment Fund	226,640.00	226,640.00
Ordinary Disability Fund	1,045,069.03	1,045,069.03
Duty Disability Fund	1,012,007.98	1,012,007.98
Expense Fund	1,498,347.19	1,498,347.19
Health Insurance Fund	1,665,859.17	1,665,859.17
Interest on Income	339,755.14	339,755.14
Prior Service Annuity Fund	(1,638,829.03)	(1,638,829.03)
<b>Total City Contributions</b>	<b>18,911,820.00</b>	<b>18,911,820.00</b>
<b>Investment Income</b>		
Interest on Bonds	45,425,426.65	45,425,426.65
Dividends	8,398,149.05	8,398,149.05
Income on Venture Capital	93,568.00	93,568.00
Real Estate Investment Income	2,052,278.33	2,052,278.33
Gain (Loss) on Sale of Bonds	16,967,103.99	16,967,103.99
Gain (Loss) on Sale of Stocks	122,784,828.17	122,784,828.17
Gain (Loss) on Sale of Venture Capital	3,534,478.00	3,534,478.00
Unrealized Gain on Investments	0.00	47,068,418.44
Less: Investment Custodial Fees	210,138.95	210,138.95
Less: Investment Management Fees	4,146,467.53	4,146,467.53
<b>Net Investment Income</b>	<b>194,899,225.71</b>	<b>241,967,644.15</b>
<b>From Securities Lending Activities</b>		
Securities Lending Income	17,634,313.48	17,634,313.48
Less: Securities Lending Rebates	16,461,345.47	16,461,345.47
Less: Securities Lending Management Fees	351,966.49	351,966.49
<b>Net Income from Securities Lending Activities</b>	<b>821,001.52</b>	<b>821,001.52</b>
<b>Net Investment Income</b>	<b>195,720,227.23</b>	<b>242,788,645.67</b>
<b>Interest On Real Estate Taxes</b>	<b>9,124.01</b>	<b>9,124.01</b>
<b>Miscellaneous Income</b>	<b>2,998.69</b>	<b>2,998.69</b>
<b>Total Income Forwarded</b>	<b>\$ 233,331,485.73</b>	<b>\$ 280,399,904.17</b>

<sup>1</sup> Early Retirement Incentive Payments include \$1,482,224.71 cash received in 1998.

<sup>2</sup> 1998 taxes of \$16,991,000 City and \$4,600 Park less 5% for loss of collection of \$849,780 plus replacement tax from State of \$2,766,000.

<b>EXPENDITURES FOR YEAR 1998</b>		
	<b>Book</b>	<b>Market</b>
<b>Total Income Forwarded</b>	<b>\$ 233,331,485.73</b>	<b>\$ 280,399,904.17</b>
<b>Annuities and Benefits Paid</b>		
Employee Annuities	49,416,345.45	49,416,345.45
Spouse Annuities	9,643,251.41	9,643,251.41
Children's Annuities	226,640.00	226,640.00
Ordinary Disability	1,045,069.03	1,045,069.03
Duty Disability	1,012,007.98	1,012,007.98
Supplementary Payments	9,441.84	9,441.84
Hospitalization Benefit Payments	1,665,859.17	1,665,859.17
<b>Total Benefits</b>	<b>63,018,614.88</b>	<b>63,018,614.88</b>
Reciprocal Act Reimbursement	(3,616.68)	(3,616.68)
<b>Net Benefits Paid</b>	<b>63,014,998.20</b>	<b>63,014,998.20</b>
<b>Operating Expense</b>		
Salaries		
Employees	693,262.40	693,262.40
Payroll Taxes	10,248.83	10,248.83
Group Health Insurance	87,981.29	87,981.29
Life Insurance	2,711.19	2,711.19
Services		
Actuarial Consulting	14,750.26	14,750.26
Annuity Computation	147,653.76	147,653.76
Employee Accounts and Data Processing	73,668.50	73,668.50
Check Production	68,275.10	68,275.10
Legal Expense	49,205.00	49,205.00
Medical Expense	28,578.00	28,578.00
Auditing	24,700.00	24,700.00
Consulting	9,336.00	9,336.00
Conference, Membership and Education	21,360.92	21,360.92
Election	610.50	610.50
Printing and Stationery	32,305.16	32,305.16
Office Supplies and Equipment	18,392.09	18,392.09
Postage	31,566.18	31,566.18
Rent and Electricity	116,141.77	116,141.77
Department of Insurance Compliance Fee	12,000.00	12,000.00
Telephone	5,379.13	5,379.13
Depreciation Expense	34,588.04	34,588.04
Miscellaneous	7,801.17	7,801.17
<b>Total Operating Expense</b>	<b>1,490,515.29</b>	<b>1,490,515.29</b>
Litigation Expense	7,831.90	7,831.90
<b>Net Expenses</b>	<b>1,498,347.19</b>	<b>1,498,347.19</b>
<b>Refunds</b>	<b>4,460,434.47</b>	<b>4,460,434.47</b>
<b>Total Expenditures</b>	<b>68,973,779.86</b>	<b>68,973,779.86</b>
<b>Excess Income Over Expenditures</b>	<b>164,357,705.87</b>	<b>211,426,124.31</b>
<b>Net Change in Reserve for Loss and Cost of Collecting Taxes</b>		
Receivable for Prior Years	800,357.95	800,357.95
<b>Net Change In Reserve For Payable And Receivables</b>	<b>63,181.40</b>	<b>63,181.40</b>
<b>Increase in Net Assets for Year</b>	<b>\$ 165,221,245.22</b>	<b>\$ 212,289,663.66</b>



**Laborers' & Retirement Board Employees'  
Annuity and Benefit Fund of Chicago**

**Comparative Analysis - Year 1998**

**Assets and Liabilities**

<b>COMPARATIVE ANALYSIS</b>			
<b>ASSETS (at book value)</b>			
	1997	1998	Increase (Decrease)
<b>Cash and Equivalents</b>	\$ 90,099,296.48	\$ 168,026,972.41	\$ 77,927,675.93
<b>Investments</b>			
Bonds	616,208,237.74	624,974,788.02	8,766,550.28
Common and Preferred Stocks	442,745,388.86	503,740,322.05	60,994,933.19
Venture Capital	11,226,500.00	14,472,590.00	3,246,090.00
Real Estate and Mortgages	20,617,520.85	29,318,555.18	8,701,034.33
Reserve for Trust Account Loss	(1,689,033.00)	(1,689,033.00)	0.00
<b>Total Investments</b>	<b>1,089,108,614.45</b>	<b>1,170,817,222.25</b>	<b>81,708,607.80</b>
<b>Securities Lending Collateral</b>	355,277,379.00	309,884,952.99	(45,392,426.01)
<b>Interest Receivable</b>			
Accrued Interest	7,784,655.28	7,719,636.80	(65,018.48)
Accrued Dividends	770,538.54	703,502.27	(67,036.27)
<b>Total Investment Income Receivable</b>	<b>8,555,193.82</b>	<b>8,423,139.07</b>	<b>(132,054.75)</b>
<b>Accounts Receivable - Taxes</b>			
Tax Extension (City & Park)	18,269,718.29	18,284,735.83	15,017.54
Replacement Tax From State	2,750,000.00	2,766,000.00	16,000.00
Less: Est. for Loss on Collection	2,097,743.75	1,944,800.57	(152,943.18)
<b>Net Taxes Receivable</b>	<b>18,921,974.54</b>	<b>19,105,935.26</b>	<b>183,960.72</b>
<b>Other Accounts Receivable</b>			
Salary Deductions Accrued	1,110,586.46	998,500.90	(112,085.56)
Active Employee Accounts	265,702.45	232,701.01	(33,001.44)
Inactive Employee Accounts	79,135.45	73,100.33	(6,035.12)
Miscellaneous Accounts Receivable	384.09	(223.20)	(607.29)
Due from Broker	0.00	2,378,372.83	2,378,372.83
ERI Accounts Receivable	0.00	1,535,205.06	1,535,205.06
<b>Total Fixed Assets</b>	<b>1,455,808.45</b>	<b>5,217,656.93</b>	<b>3,761,848.48</b>
<b>Other Assets</b>			
Furniture	180,952.72	224,991.90	44,039.18
Accumulated Depreciation	(138,132.93)	(108,840.36)	29,292.57
Prepaid Expenses	571.25	0.00	(571.25)
<b>Net Other Assets</b>	<b>43,391.04</b>	<b>116,151.54</b>	<b>72,760.50</b>
<b>Gross Ledger Assets</b>	<b>1,563,461,657.78</b>	<b>1,681,592,030.45</b>	<b>118,130,372.67</b>
<b>Less Accounts Payable</b>			
Investment Manager Fees	454,031.53	662,502.54	208,471.01
Miscellaneous Employee Accounts	1,335,298.22	1,259,663.78	(75,634.44)
Professional Fees	42,156.15	124,368.31	82,212.16
Due to Broker	1,913,495.27	0.00	(1,913,495.27)
Securities Lending Liability	355,277,379.00	309,884,952.99	(45,392,426.01)
<b>Total Accounts Payable</b>	<b>359,022,360.17</b>	<b>311,931,487.62</b>	<b>(47,090,872.55)</b>
<b>Total Net Ledger Assets</b>	<b>\$ 1,204,439,297.61</b>	<b>\$ 1,369,660,542.83</b>	<b>\$ 165,221,245.22</b>

<b>COMPARATIVE ANALYSIS</b>			
<b>LIABILITIES AND FUND BALANCES (at book value)</b>			
<b>Liability Reserves</b>	<b>1997</b>	<b>1998</b>	<b>Increase (Decrease)</b>
<b>Annuity Payment Fund</b>			
Employee Annuitants	\$ 106,072,207.80	\$ 154,565,228.52	\$ 48,493,020.72
Spouse Annuitants	39,466,918.08	40,772,206.80	1,305,288.72
Spouses' Annuities Fixed	34,192,360.19	50,312,481.84	16,120,121.65
<b>Total Annuity Payment Fund</b>	<b>179,731,486.07</b>	<b>245,649,917.16</b>	<b>65,918,431.09</b>
<b>Salary Deduction Fund Account</b>			
Employees	154,173,308.49	137,454,482.54	(16,718,825.95)
Spouses of Employees	35,432,663.87	31,642,739.74	(3,789,924.13)
<b>Total Salary Deduction Fund</b>	<b>189,605,972.36</b>	<b>169,097,222.28</b>	<b>(20,508,750.08)</b>
<b>City Contribution Fund Account</b>			
Employees	142,628,281.24	127,018,279.31	(15,610,001.93)
Spouses of Employees	47,364,370.24	42,234,826.55	(5,129,543.69)
<b>Total City Contribution Fund</b>	<b>189,992,651.48</b>	<b>169,253,105.86</b>	<b>(20,739,545.62)</b>
<b>Other Reserves</b>			
Supplementary Payment Reserve	78,782.47	69,340.63	(9,441.84)
<b>Total Other Reserves</b>	<b>78,782.47</b>	<b>69,340.63</b>	<b>(9,441.84)</b>
<b>Prior Service Fund Account</b>			
Employee Annuitants	278,184,225.84	470,471,687.80	192,287,461.96
Spouse Annuitants	36,737,946.84	68,148,112.32	31,410,165.48
Spouses' Annuities Fixed	28,540,629.73	44,888,200.87	16,347,571.14
Salary Deductions 3% Annuity Increase	16,114,064.33	15,695,867.44	(418,196.89)
Estimated Excess Liability <sup>1</sup>	121,664,775.88	109,338,257.43	(12,326,518.45)
<b>Total Prior Service Fund Account</b>	<b>481,241,642.62</b>	<b>708,542,125.86</b>	<b>227,300,483.24</b>
<b>Total Liabilities</b>	<b>1,040,650,535.00</b>	<b>1,292,611,711.79</b>	<b>251,961,176.79</b>
<b>Unfunded Obligations <sup>1</sup></b>	<b>163,788,762.61</b>	<b>77,048,831.04</b>	<b>(86,739,931.57)</b>
<b>Total Net Liabilities</b>	<b>\$ 1,204,439,297.61</b>	<b>\$ 1,369,660,542.83</b>	<b>\$ 165,221,245.22</b>

<sup>1</sup> The attached letter of transmittal describes how this liability was determined.

<b>COMPARATIVE ANALYSIS</b>			
<b>ASSETS (at market value)</b>			
	1997	1998	Increase (Decrease)
<b>Cash and Equivalents</b>	\$ 90,099,296.48	\$ 168,026,972.41	\$ 77,927,675.93
<b>Investments</b>			
Bonds	627,518,761.50	636,675,581.55	9,156,820.05
Common and Preferred Stocks	625,035,037.75	733,300,673.25	108,265,635.50
Venture Capital	14,240,380.00	15,791,080.00	1,550,700.00
Real Estate and Mortgages	21,326,181.00	31,130,051.69	9,803,870.69
<b>Total Investments</b>	<b>1,288,120,360.25</b>	<b>1,416,897,386.49</b>	<b>128,777,026.24</b>
<b>Securities Lending Collateral</b>	355,277,379.00	309,884,952.99	(45,392,426.01)
<b>Interest Receivable</b>			
Accrued Interest	7,784,655.28	7,719,636.80	(65,018.48)
Accrued Dividends	770,538.54	703,502.27	(67,036.27)
<b>Total Investment Income Receivable</b>	<b>8,555,193.82</b>	<b>8,423,139.07</b>	<b>(132,054.75)</b>
<b>Accounts Receivable - Taxes</b>			
Tax Extension (City & Park)	18,269,718.29	18,284,735.83	15,017.54
Replacement Tax From State	2,750,000.00	2,766,000.00	16,000.00
Less: Est. for Loss on Collection	2,097,743.75	1,944,800.57	(152,943.18)
<b>Net Taxes Receivable</b>	<b>18,921,974.54</b>	<b>19,105,935.26</b>	<b>183,960.72</b>
<b>Other Accounts Receivable</b>			
Salary Deductions Accrued	1,110,586.46	998,500.90	(112,085.56)
Active Employee Accounts	265,702.45	232,701.01	(33,001.44)
Inactive Employee Accounts	79,135.45	73,100.33	(6,035.12)
Miscellaneous Accounts Receivable	384.09	(223.20)	(607.29)
Due from Broker	0.00	2,378,372.83	2,378,372.83
ERI Accounts Receivable	0.00	1,535,205.06	1,535,205.06
<b>Total Fixed Assets</b>	<b>1,455,808.45</b>	<b>5,217,656.93</b>	<b>3,761,848.48</b>
<b>Other Assets</b>			
Furniture	180,952.72	224,991.90	44,039.18
Accumulated Depreciation	(138,132.93)	(108,840.36)	29,292.57
Prepaid Expenses	571.25	0.00	(571.25)
<b>Net Other Assets</b>	<b>43,391.04</b>	<b>116,151.54</b>	<b>72,760.50</b>
<b>Gross Ledger Assets</b>	<b>1,762,473,403.58</b>	<b>1,927,672,194.69</b>	<b>165,198,791.11</b>
<b>Less Accounts Payable</b>			
Investment Manager Fees	454,031.53	662,502.54	208,471.01
Miscellaneous Employee Accounts	1,335,298.22	1,259,663.78	(75,634.44)
Professional Fees	42,156.15	124,368.31	82,212.16
Due to Broker	1,913,495.27	0.00	(1,913,495.27)
Securities Lending Liability	355,277,379.00	309,884,952.99	(45,392,426.01)
<b>Total Accounts Payable</b>	<b>359,022,360.17</b>	<b>311,931,487.62</b>	<b>(47,090,872.55)</b>
<b>Total Net Ledger Assets</b>	<b>\$ 1,403,451,043.41</b>	<b>\$ 1,615,740,707.07</b>	<b>\$ 212,289,663.66</b>

<b>COMPARATIVE ANALYSIS</b>			
<b>LIABILITIES AND FUND BALANCES (at market value)</b>			
<b>Liability Reserves</b>	<b>1997</b>	<b>1998</b>	<b>Increase (Decrease)</b>
<b>Annuity Payment Fund</b>			
Employee Annuitants	\$ 106,072,207.80	\$ 154,565,228.52	\$ 48,493,020.72
Spouse Annuitants	39,466,918.08	40,772,206.80	1,305,288.72
Spouses' Annuities Fixed	34,192,360.19	50,312,481.84	16,120,121.65
<b>Total Annuity Payment Fund</b>	<b>179,731,486.07</b>	<b>245,649,917.16</b>	<b>65,918,431.09</b>
<b>Salary Deduction Fund Account</b>			
Employees	154,173,308.49	137,454,482.54	(16,718,825.95)
Spouses of Employees	35,432,663.87	31,642,739.74	(3,789,924.13)
<b>Total Salary Deduction Fund</b>	<b>189,605,972.36</b>	<b>169,097,222.28</b>	<b>(20,508,750.08)</b>
<b>City Contribution Fund Account</b>			
Employees	142,628,281.24	127,018,279.31	(15,610,001.93)
Spouses of Employees	47,364,370.24	42,234,826.55	(5,129,543.69)
<b>Total City Contribution Fund</b>	<b>189,992,651.48</b>	<b>169,253,105.86</b>	<b>(20,739,545.62)</b>
<b>Other Reserves</b>			
Supplementary Payment Reserve	78,782.47	69,340.63	(9,441.84)
<b>Total Other Reserves</b>	<b>78,782.47</b>	<b>69,340.63</b>	<b>(9,441.84)</b>
<b>Prior Service Fund Account</b>			
Employee Annuitants	278,184,225.84	470,471,687.80	192,287,461.96
Spouse Annuitants	36,737,946.84	68,148,112.32	31,410,165.48
Spouses' Annuities Fixed	28,540,629.73	44,888,200.87	16,347,571.14
Salary Deductions 3% Annuity Increase	16,114,064.33	15,695,867.44	(418,196.89)
Estimated Excess Liability <sup>1</sup>	121,664,775.88	109,338,257.43	(12,326,518.45)
<b>Total Prior Service Fund Account</b>	<b>481,241,642.62</b>	<b>708,542,125.86</b>	<b>227,300,483.24</b>
<b>Total Liabilities</b>	<b>1,040,650,535.00</b>	<b>1,292,611,711.79</b>	<b>251,961,176.79</b>
<b>Unfunded Obligations <sup>1</sup></b>	<b>362,800,508.41</b>	<b>323,128,995.28</b>	<b>(39,671,513.13)</b>
<b>Total Net Liabilities</b>	<b>\$ 1,403,451,043.41</b>	<b>\$ 1,615,740,707.07</b>	<b>\$ 212,289,663.66</b>

<sup>1</sup> The attached letter of transmittal describes how this liability was determined.

## TAXES RECEIVABLE

December 31, 1998

Year	Uncollected Taxes 12/31/98	Estimate for Loss 12/31/97	Additional Est. Setup 12/31/98	Total Est. for Loss 12/31/98	Taxes Collectible 12/31/98
<b>City</b>					
1994	\$ 206,587.78	\$ (207,274.91)	\$ 687.13	\$ (206,587.78)	\$ 0.00
1995	181,525.71	(251,811.60)	73,553.35	(178,258.25)	3,267.46
1996	206,862.25	(516,960.00)	314,234.99	(202,725.01)	4,137.24
1997	693,519.39	(844,750.00)	337,900.00	(506,850.00)	186,669.39
1998	16,991,000.00	0.00	(849,550.00)	(849,550.00)	16,141,450.00
<b>Total City</b>	<b>\$ 18,279,495.13</b>	<b>\$ (1,820,796.51)</b>	<b>\$ (123,174.53)</b>	<b>\$ (1,943,971.04)</b>	<b>\$ 16,335,524.09</b>
<b>Park</b>					
1994	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
1995	0.00	(120.56)	120.56	0.00	0.00
1996	384.53	(345.00)	(39.53)	(384.53)	0.00
1997	256.17	(215.00)	0.00	(215.00)	41.17
1998	4,600.00	0.00	(230.00)	(230.00)	4,370.00
<b>Total Park</b>	<b>\$ 5,240.70</b>	<b>\$ (680.56)</b>	<b>\$ (148.97)</b>	<b>\$ (829.53)</b>	<b>\$ 4,411.17</b>
<b>Total City and Park</b>	<b>\$ 18,284,735.83</b>	<b>\$ (1,821,477.07)</b>	<b>\$ (123,323.50)</b>	<b>\$ (1,944,800.57)</b>	<b>\$ 16,339,935.26</b>
			Personal Property Replacement Tax Due from State 1998		\$ 2,766,000.00
					<u>\$ 19,105,935.26</u>

Note: The loss on the 1998 tax levy was 5%. Due to the 100% collection of the personal property replacement tax, the overall loss is 4%. The statutory requirement of \$19,761,600 is the sum of \$16,991,000 City and \$4,600 Park plus \$2,766,000. For 1999, the tax levy of \$14,676,898 is assumed to have a 4% loss.

Total City Contributions from Tax Levy = \$18,911,820 (see Income page).

## MEMBERSHIP STATISTICS

1998

Changes in Active Participants	Number at Beginning of Year	New	Increases Inactive to Active	Total	Decreases	Number at End of Year
Males	3,550	244	169	413	602	3,361
Females	326	72	40	112	46	392
Total	3,876	316	209	525	648	3,753
Changes in Inactive Participants						
Males	1,590	130	124	254	266	1,578
Females	141	18	19	37	52	126
Total	1,731	148	143	291	318	1,704

Changes in Annuitants and Beneficiaries	Number at Beginning of Year	Increases	Decreases	Number at End of Year
Employee Annuitants	2,296	460	128	2,628
Spouse Annuitants	1,365	79	79	1,365
Child Annuities	73	20	10	83
Ordinary Disability Benefits	54	91	110	35
Duty Disability Benefits	91	320	334	77
Reciprocal:				
Employee	161	25	6	180
Spouse	48	4	3	49
Total	4,088	999	670	4,417
Ratio of Active Participants to Annuitants and Beneficiaries	0.95			0.85

**SALARY AND AGE STATISTICS**  
**Ages and Salaries as of December 31, 1998**

Age	Number	Annual Salaries	Average Annual Salary
<b>Male</b>			
Under 20	5	\$ 242,880	\$ 48,576
20-24	103	3,747,528	36,384
25-29	183	8,108,856	44,311
30-34	323	14,526,384	44,973
35-39	511	23,945,232	46,860
40-44	730	34,351,824	47,057
45-49	632	30,158,832	47,720
50-54	415	19,318,728	46,551
55-59	250	11,815,440	47,262
60-64	139	6,191,136	44,541
65-69	44	2,043,792	46,450
70 +	26	1,200,024	46,155
Without Record	0	0	0
<b>Total Male</b>	<b>3,361</b>	<b>\$ 155,650,656</b>	<b>\$ 46,311</b>
<b>Female</b>			
Under 20	2	\$ 38,304	\$ 19,152
20-24	46	1,077,528	23,425
25-29	40	1,505,232	37,631
30-34	55	2,284,920	41,544
35-39	71	3,032,472	42,711
40-44	72	3,005,640	41,745
45-49	41	1,720,704	41,968
50-54	25	1,007,760	40,310
55-59	19	676,248	35,592
60-64	11	371,448	33,768
65-69	5	141,504	28,301
70 +	5	114,696	22,939
Without Record	0	0	0
<b>Total Female</b>	<b>392</b>	<b>\$ 14,976,456</b>	<b>\$ 38,205</b>
<b>Male and Female</b>	<b>3,753</b>	<b>\$ 170,627,112</b>	<b>\$ 45,464</b>

**SALARY AND AGE STATISTICS**  
**Ages and Salaries as of December 31, 1998**

**Ages at Entrance**

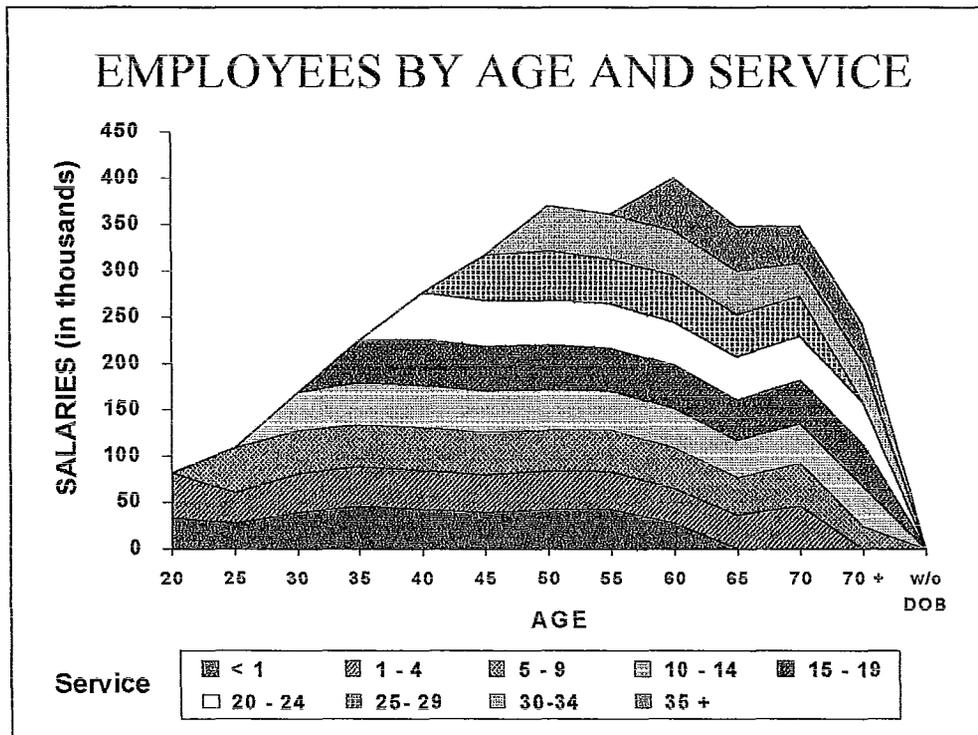
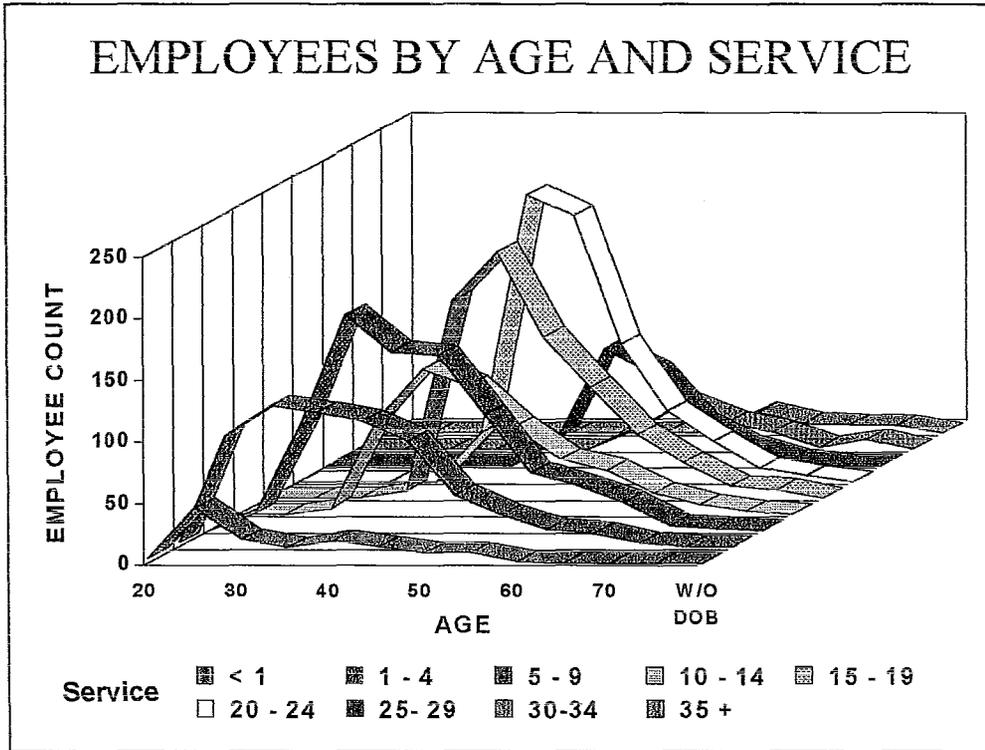
Age	Male		Female	
	Number	Annual Salaries	Number	Annual Salaries
Under 25	1,261	\$ 60,215,304	109	\$ 3,516,288
25-29	736	34,585,176	69	2,825,088
30-34	545	24,709,200	73	3,100,848
35-39	358	16,175,208	58	2,303,136
40-44	230	10,058,736	44	1,707,984
45-49	113	4,978,296	23	962,592
50-54	71	2,998,896	9	322,440
55-59	32	1,318,296	5	182,592
60-64	15	611,544	1	41,544
65 +	0	0	1	13,944
W/O Record	0	0	0	0
<b>Totals</b>	<b>3,361</b>	<b>\$ 155,650,656</b>	<b>392</b>	<b>\$ 14,976,456</b>
<b>Average Annual Salary</b>		<b>\$ 46,311</b>		<b>\$ 38,205</b>
<b>Average Attained Age</b>		<b>43.5</b>		<b>38.9</b>
<b>Average Service</b>		<b>14.3</b>		<b>7.2</b>
<b>Average Age at Entrance</b>		<b>29.2</b>		<b>31.7</b>

## AGE AND SERVICE DISTRIBUTION - ACTIVES

Ages and Service as of December 31, 1998

Average Salaries by Age and Service Grouping (Showing the Number of Active Members and the Average Salaries of Male and Female Combined)

Age	Years of Service									Total
	< 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
< 20	4	3								7
	\$33,864	\$48,576								\$40,169
20-24	45	90	14							149
	\$27,522	\$32,335	\$48,312							\$32,383
25-29	19	114	85	5						223
	\$39,580	\$41,323	\$46,414	\$41,222						\$43,113
30-34	12	109	175	76	6					378
	\$46,238	\$42,203	\$45,740	\$44,391	\$46,352					\$44,474
35-39	18	102	145	117	160	40				582
	\$42,808	\$41,996	\$45,808	\$46,217	\$49,076	\$50,543				\$46,353
40-44	13	86	142	104	200	233	24			802
	\$39,343	\$40,313	\$45,738	\$44,985	\$47,816	\$49,062	\$50,467			\$46,580
45-49	8	42	94	71	131	216	95	16		673
	\$42,459	\$42,015	\$43,888	\$44,195	\$47,928	\$48,726	\$51,846	\$48,950		\$47,369
50-54	8	26	47	45	90	112	75	37		440
	\$43,311	\$40,638	\$44,672	\$41,455	\$45,928	\$48,454	\$48,082	\$48,430		\$46,197
55-59	1	14	36	36	52	57	34	22	17	269
	\$27,552	\$37,030	\$43,974	\$43,189	\$46,417	\$46,524	\$50,041	\$49,184	\$56,403	\$46,438
60-64		11	23	17	29	33	15	14	8	150
		\$35,913	\$41,227	\$39,932	\$42,872	\$47,851	\$44,357	\$47,880	\$47,805	\$43,751
65-69		3	4	8	10	11	4	2	7	49
		\$46,232	\$46,434	\$42,126	\$47,170	\$47,660	\$44,058	\$34,920	\$40,262	\$44,598
70+			2	3	7	5		8	6	31
			\$24,408	\$42,328	\$45,915	\$45,754		\$42,600	\$41,324	\$42,410
w/o DOB										0
										\$0
<b>Number</b>	128	600	767	482	685	707	247	99	38	3,753
<b>Salary</b>	\$36,535	\$39,985	\$45,311	\$44,329	\$47,526	\$48,640	\$49,740	\$47,860	\$49,239	\$45,464
<b>Age</b>	31.3	35.1	39.4	43.2	45.6	47.5	50.7	55.8	63.1	43.0
<b>Service</b>	0.8	2.4	6.8	11.8	17.3	21.8	26.6	31.6	38.3	13.8



**AGE AND SERVICE DISTRIBUTION - INACTIVES**  
**Ages and Service as of December 31, 1998**

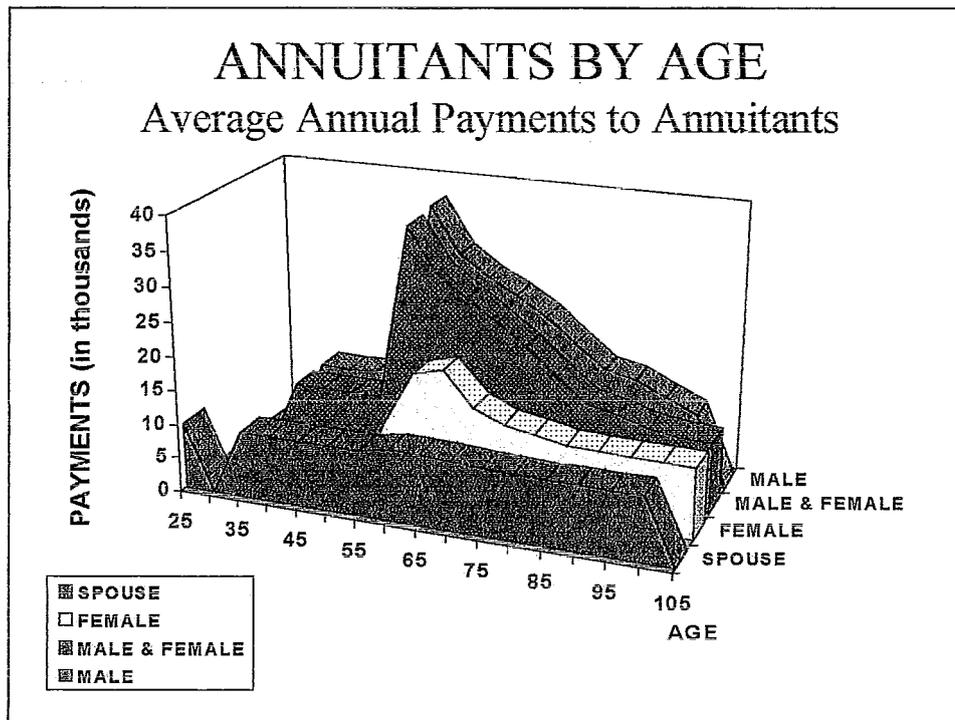
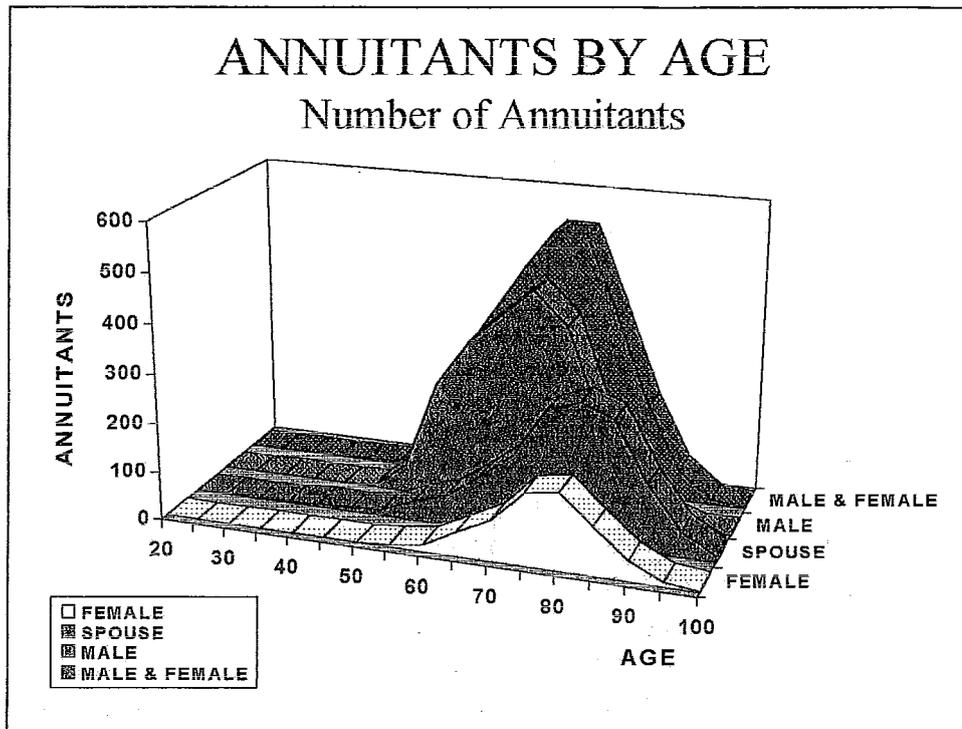
Average Age and Service Grouping  
 (Showing the Number of Inactive Members - Male and Female Combined)

Age	Years of Service									Total
	< 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
< 20	13	7								20
20-24	27	75	3							105
25-29	33	55	10							98
30-34	75	57	20	4	1					157
35-39	240	72	16	6	14	1				349
40-44	177	80	13	18	14	20				322
45-49	109	61	20	5	16	14	6	1		232
50-54	57	43	10	16	8	11	7	3		155
55-59	25	29	11	2	4	2	1	1		75
60-64	24	22	6	2	4	3	2		2	65
65-69	19	11		3	1	3	1			38
70+	26	28	11	9	2	3	4	1		84
W/o DOB	1	3								4
<b>Number</b>	826	543	120	65	64	57	21	6	2	1,704
<b>Age</b>	42.0	40.9	45.1	51.1	46.8	50.0	57.0	58.7	62.0	43.0
<b>Service</b>	0.5	1.9	6.4	11.7	16.9	21.7	27.1	30.8	38.5	5.8

## ANNUITANTS CLASSIFIED BY AGE AS OF DECEMBER 31, 1998

## Retirement Annuities (Including Reciprocal)

Age	Male Number	Annual Payments	Average Annual Payments	Female Number	Annual Payments	Average Annual Payments
<b>Employee Annuitants</b>						
30-34	1	\$ 10,200.00	\$ 10,200.00	0	\$ -	\$ -
35-39	1	10,200.00	10,200.00	0	-	-
40-44	2	20,400.00	10,200.00	0	-	-
45-49	4	40,800.00	10,200.00	0	-	-
50-54	57	2,093,275.08	36,724.12	1	10,200.00	10,200.00
55-59	239	7,175,416.32	30,022.66	5	90,114.36	18,022.87
60-64	333	9,022,839.36	27,095.61	15	289,031.88	19,268.79
65-69	394	9,837,863.88	24,969.20	49	705,158.40	14,390.99
70-74	450	10,025,518.08	22,278.93	83	1,043,251.08	12,569.29
75-79	385	7,239,832.08	18,804.76	148	1,740,799.92	11,762.16
80-84	213	3,298,520.64	15,486.01	159	1,728,163.08	10,868.95
85-89	92	1,341,640.20	14,583.05	101	1,081,154.04	10,704.50
90-94	22	273,735.00	12,442.50	42	444,779.04	10,589.98
95-99	1	10,506.00	10,506.00	9	94,554.00	10,506.00
100+	0	-	-	2	20,706.00	10,353.00
<b>Totals</b>	<b>2,194</b>	<b>\$ 50,400,746.64</b>	<b>\$ 22,972.08</b>	<b>614</b>	<b>\$ 7,247,911.80</b>	<b>\$ 11,804.42</b>
<b>Average Age</b>			<b>69</b>			<b>79</b>
<b>Spouse Annuitants (Not Including Compensation)</b>						
20-24	0	\$ -	\$ -	2	\$ 19,200.00	\$ 9,600.00
25-29	0	-	-	0	-	-
30-34	0	-	-	2	19,200.00	9,600.00
35-39	1	9,600.00	9,600.00	6	57,600.00	9,600.00
40-44	0	-	-	7	67,200.00	9,600.00
45-49	0	-	-	14	135,760.80	9,697.20
50-54	0	-	-	41	390,100.08	9,514.64
55-59	0	-	-	61	638,597.52	10,468.81
60-64	1	9,600.00	9,600.00	107	1,108,092.48	10,356.00
65-69	3	28,800.00	9,600.00	156	1,576,644.24	10,106.69
70-74	8	76,800.00	9,600.00	252	2,490,522.00	9,883.02
75-79	3	28,800.00	9,600.00	282	2,740,433.40	9,717.85
80-84	10	96,000.00	9,600.00	251	2,402,127.72	9,570.23
85-89	0	-	-	141	1,354,638.36	9,607.36
90-94	0	-	-	53	503,677.92	9,503.36
95+	0	-	-	13	124,800.00	9,600.00
<b>Totals</b>	<b>26</b>	<b>\$ 249,600.00</b>	<b>\$ 9,600.00</b>	<b>1,388</b>	<b>\$ 13,628,594.52</b>	<b>\$ 9,818.87</b>
<b>Average Age</b>			<b>74</b>			<b>74</b>



**HEALTH INSURANCE SUPPLEMENT  
CLASSIFIED BY AGE AS OF DECEMBER 31, 1998**

Age	Single Coverage	Family Coverage	Total Participants	Total Non-Participants	Total Annuitants	% Part/Annuitants
<b>Employee Annuitants</b>						
30-39	2	0	2	0	2	100.00%
40-49	3	1	4	2	6	66.67%
50-59	86	157	243	59	302	80.46%
60-69	233	389	622	169	791	78.63%
70-79	382	390	772	294	1,066	72.42%
80-89	220	105	325	240	565	57.52%
Over 90	30	5	35	41	76	46.05%
<b>Total</b>	<b>956</b>	<b>1,047</b>	<b>2,003</b>	<b>805</b>	<b>2,808</b>	<b>71.33%</b>
<b>Spouse Annuitants</b>						
Under 30	0	1	1	1	2	50.00%
30-39	2	5	7	2	9	77.78%
40-49	3	10	13	8	21	61.90%
50-59	36	10	46	56	102	45.10%
60-69	148	2	150	117	267	56.18%
70-79	308	2	310	235	545	56.88%
80-89	170	0	170	232	402	42.29%
Over 90	22	0	22	44	66	33.33%
<b>Total</b>	<b>689</b>	<b>30</b>	<b>719</b>	<b>695</b>	<b>1,414</b>	<b>50.85%</b>

**NEW ANNUITIES GRANTED DURING 1998  
SURVIVING TO DECEMBER 31, 1998**

	Male Annuitants	Female Annuitants	Widows/ Widowers of Deceased Employees	Widows/ Widowers of Deceased Annuitants
Number Retired	463	15	15	54
Average Age Attained	60.5	64.6	51.9	71.6
Number with Spouses	336	4	15	54
Average Spouse Age	56.6	68.3	53.2	76.8
Percentage with Spouse	72.57%	26.67%	N/A	N/A
Average Length of Service	32.1	29.5	14.3	26.6
Average Years on Pension	--	--	--	10.37
Number Maxed out at 80%	202	8	--	--
Average Final Salary	\$ 46,275	\$ 27,906	\$ 30,790	--
Total Final Salary	21,425,268	418,584	461,844	--
Average Annual Salary	43,872	27,141	--	--
Total Annual Annuity	14,517,147	247,687	156,957	\$ 587,384
Average Annual Annuity	31,355	16,512	10,464	10,877
Total Liability (8% 1983 GAM)	199,697,567	3,366,884	1,739,067	4,753,073
Average Liability	431,312	224,459	115,938	\$ 88,020
Total Contributed by EE <sup>1</sup>	28,074,772	323,209	581,227	--
Average Contribution	\$ 60,637	\$ 21,547	\$ 38,748	--
Expected Future Lifetime (yrs.)	18.63	19.93	25.77	10.96
Payback Period (yrs.)	1.9339	1.3049	3.7031	--
Replacement Ratio	67.76%	59.17%	33.98%	--
Liability/Salary	9.32	8.04	3.77	--
Liability/Contributions	7.11	10.42	2.99	--

Note: Does not include any annuities that terminate within the year of retirement

<sup>1</sup> Includes "Pickup."

**NEW EARLY RETIREMENT ANNUITIES GRANTED DURING 1998 AND 1993  
SURVIVING TO END OF YEAR OF RETIREMENT**

	1998		1993	
	Male Annuitants	Female Annuitants	Male Annuitants	Female Annuitants
Number Retired	435	12	347	29
Average Age Attained	60.6	64.9	63.1	66.9
Number with Spouses	314	4	256	13
Average Spouse Age	56.7	68.3	59.7	67.8
Percentage with Spouse	72.18%	33.33%	73.78%	44.83%
Average Total Service	33.3	31.3	31.9	34.5
Total ERI Service	1,526.8	45.5	1,272.3	123.5
Average ERI Service	3.5	3.8	3.7	4.3
Number Maxed out at 80%	202	7	120	8
Total ERI Cost	\$ 2,669,521	\$ 62,254	\$ 1,903,234	\$ 102,848
Average ERI Cost	6,137	5,188	5,485	3,546
Total Final Salary	20,251,668	358,260	12,826,644	593,580
Average Annual Salary	46,556	29,855	36,964	20,468
Total Annual Annuity	14,175,592	224,057	8,463,752	415,924
Average Annual Annuity	32,588	18,671	24,391	14,342
Total Liability (8% 1983 GAM)	194,955,200	3,057,204	93,878,761	4,689,172
Average Liability	448,173	254,767	270,544	161,696
Total Contributed by EE <sup>1</sup>	27,440,472	309,961	16,205,982	448,327
Average Contribution	\$ 63,082	\$ 25,830	\$ 46,703	\$ 15,460
Expected Future Lifetime (yrs.)	18.55	19.68	16.02	17.42
Payback Period (yrs.)	1.9358	1.3834	1.9148	1.0779
Replacement Ratio	70.00%	62.54%	65.99%	70.07%
Liability/Salary	9.63	8.53	7.32	7.90
Liability/Contributions	7.10	9.86	5.79	10.46

Note: Does not include any annuities that terminate within the year of retirement

<sup>1</sup> Includes "Pickup."

**COMPARISON OF EARLY RETIREMENT INCENTIVES IN 1998 AND 1993  
SURVIVING TO END OF YEAR OF RETIREMENT**

	ERI Comparison		ERI Differences	
	1998 ERI	1993 ERI	Amount	Percent
Number Retired	447	376	71	18.88%
Average Age Attained	60.7	63.4	(2.7)	(4.26)%
Number with Spouses	318	269	49	18.22%
Average Spouse Age	56.8	60.1	(3.3)	(5.49)%
Percentage with Spouse	71.14%	71.54%	(0.40)%	(0.56)%
Average Length of Service	32.7	32.9	(0.2)	(0.61)%
Number Maxed out at 80%	209	128	81	63.28%
Total ERI Service	1,572.3	1,395.8	176.5	12.65%
Average ERI Service	3.5	3.7	(0.2)	(5.41)%
Total ERI Cost	\$ 2,731,775	\$ 2,006,082	725,693	36.17%
Average ERI Cost	6,111	5,335	776	14.55%
Total Final Salary	20,609,928	13,420,224	7,189,704	53.57%
Average Final Salary	46,107	35,692	10,415	29.18%
Total Annual Annuity	14,399,649	8,879,676	5,519,973	62.16%
Average Annual Annuity	32,214	23,616	8,598	36.41%
Total Liability (8% 1983 GAM)	198,012,404	98,567,933	99,444,471	100.89%
Average Liability	442,981	262,149	180,832	68.98%
Total Contributed by EE <sup>1</sup>	27,750,433	16,654,309	11,096,124	66.63%
Average Contribution	\$ 62,082	\$ 44,293	17,789	40.16%
Expected Future Lifetime (yrs.)	18.9	16.4	2.5	15.24%
Payback Period (yrs.)	1.9272	1.8756	0.0516	2.75%
Replacement Ratio	69.87%	66.17%	3.70%	5.59%
Liability/Salary	9.61	7.34	2.27	30.93%
Liability/Contributions	7.14	5.92	1.22	20.61%

Note: Does not include any annuities that terminate within the year of retirement

<sup>1</sup> Includes "Pickup."

**NEW RECIPROCAL ANNUITIES GRANTED DURING 1998  
SURVIVING TO DECEMBER 31, 1998**

	Reciprocal		Last with Laborers'	
	Male Annuitants	Female Annuitants	Male Annuitants	Female Annuitants
Number Retired	24	1	12	--
Average Age Attained	59.6	56.0	59.7	--
Number with Spouses	21	--	10	--
Average Spouse Age	55.9	--	53.9	--
Percentage with Spouse	87.50%	0.00%	83.33%	0.00%
Average Length of Service	32.1	27.8	34.7	--
Average Service with this Fund	19.6	4.0	29.9	--
Average Years on Pension	--	--	--	--
Total Final Salary	\$ 1,267,500	\$ 36,696	\$ 708,684	--
Average Annual Salary	52,813	36,696	59,057	--
Total Annual Annuity	580,342	3,229	455,768	--
Average Annual Annuity	24,181	3,229	37,981	--
Total Liability (8% 1983 GAM)	8,224,229	278,041	6,413,756	--
Average Liability	342,676	278,041	534,480	--
Total Contributed by EE <sup>1</sup>	976,623	2,276	871,316	--
Average Contribution	\$ 40,693	\$ 2,276	\$ 72,610	--
Expected Future Lifetime (yrs.)	19.34	27.48	19.26	--
Payback Period (yrs.)	1.6828	0.7048	1.9118	--
Replacement Ratio	45.79%	8.80%	64.31%	--
Liability/Salary	6.49	7.58	9.05	--
Liability/Contributions	8.42	122.16	7.36	--

Note: Does not include any annuities that terminate within the year of retirement

<sup>1</sup> Includes "Pickup."

## RETIREES AND BENEFICIARIES BY TYPE OF BENEFIT

Year	Employee Annuitants	Spouse Annuitants	Child Annuitants	Ordinary Disability	Duty Disability	Widow/er Comp.	Reciprocal Employee	Reciprocal Widow/er
1981	2,420	1,154	137	136	26	2	49	11
1982	2,419	1,175	109	113	25	2	56	11
1983	2,363	1,198	112	110	57	3	56	13
1984	2,386	1,213	96	111	77	2	83	15
1985	2,343	1,191	104	108	110	2	76	19
1986	2,406	1,205	93	119	155	2	81	21
1987	2,416	1,209	84	82	152	2	82	31
1988	2,405	1,232	79	90	172	1	89	33
1989	2,384	1,261	80	79	138	1	92	34
1990	2,391	1,279	86	70	145	1	90	38
1991	2,397	1,296	88	75	143	1	104	39
1992	2,416	1,322	88	70	156	1	118	37
1993 <sup>1</sup>	2,534	1,359	79	42	103	0	142	39
1994	2,534	1,362	75	55	106	0	146	41
1995	2,445	1,388	72	49	93	0	155	39
1996	2,378	1,374	74	38	109	0	159	43
1997	2,296	1,365	73	54	91	0	161	48
1998 <sup>1</sup>	2,628	1,365	83	35	77	0	180	49

<sup>1</sup> Early Retirement Incentive was offered during year

## AVERAGE EMPLOYEE RETIREMENT BENEFITS PAYABLE

Year Ended	Average Annual Benefit	Percent Increase	Average Annual Benefit at Retirement Current Year	Percent Increase	Average Current Age of Retirees	Average Age at Retirement Current Year	Average Years of Service at Retirement Current Year
1981	\$ 4,112	9.20%	\$ 5,757	9.60%	71.0	64.9	22.3
1982	4,434	7.80%	7,129	23.80%	72.1	64.6	23.8
1983	4,775	7.70%	7,520	5.50%	72.1	65.3	24.0
1984	5,315	11.30%	9,227	22.70%	72.7	65.9	25.3
1985	5,868	10.40%	10,456	13.30%	72.4	64.8	25.5
1986	6,730	14.70%	12,485	19.40%	72.4	64.9	27.0
1987	7,935	17.90%	13,823	10.70%	72.3	65.0	28.0
1988	8,516	7.30%	13,048	(5.60)%	72.6	65.0	27.5
1989	9,036	6.10%	12,582	(3.60)%	72.6	64.7	26.4
1990	10,045	11.20%	15,732	25.00%	72.6	64.6	28.1
1991	10,807	7.60%	16,444	4.50%	73.0	64.2	27.0
1992	11,586	7.20%	17,010	3.40%	73.2	65.2	27.1
1993 <sup>1</sup>	13,515	16.60%	21,804	28.20%	72.2	63.6	30.4
1994	14,059	4.00%	15,866	(27.20)%	72.7	63.3	23.2
1995	14,797	5.20%	20,634	30.00%	72.9	64.0	27.7
1996	15,476	4.60%	21,019	1.90%	73.3	61.4	25.9
1997	16,634	7.50%	18,339	(12.80)%	72.8	62.6	24.1
1998 <sup>1</sup>	\$ 20,530	23.42%	\$ 30,889	68.43%	71.2	60.6	32.0

<sup>1</sup> Early Retirement Incentive was offered during year

## HISTORY OF AVERAGE ANNUAL SALARIES

Year End	Members in Service	Percent Increase	Annual Salaries	Percent Increase	Average Salary	Percent Increase	Actuarial Salary Assumption	CPI Chicago
1967	8,102	1.34%	\$ 52,268,304	9.81%	\$ 6,451	8.36%	1.75%	2.80%
1968	7,891	(2.60)%	56,165,136	7.46%	7,118	10.33%	1.75%	4.20%
1969	7,777	(1.44)%	60,523,296	7.76%	7,782	9.34%	1.75%	5.40%
1970	7,220	(7.16)%	62,916,768	3.95%	8,714	11.97%	1.75%	5.70%
1971	6,864	(4.93)%	66,142,320	5.13%	9,636	10.58%	3.50%	3.90%
1972	6,971	1.56%	69,950,692	5.76%	10,035	4.13%	3.50%	3.00%
1973	6,752	(3.14)%	73,108,848	4.51%	10,828	7.90%	3.50%	6.30%
1974	6,638	(1.69)%	78,526,728	7.41%	11,830	9.26%	5.00%	10.60%
1975	7,032	5.94%	89,276,280	13.69%	12,696	7.32%	5.00%	8.00%
1976	6,811	(3.14)%	90,487,008	1.36%	13,285	4.64%	5.00%	4.70%
1977	6,752	(0.87)%	98,029,296	8.34%	14,519	9.28%	5.00%	6.30%
1978	6,613	(2.06)%	103,399,152	5.48%	15,636	7.69%	5.00%	8.50%
1979	6,175	(6.62)%	105,825,264	2.35%	17,138	9.61%	5.00%	12.50%
1980	5,847	(5.31)%	108,854,496	2.86%	18,617	8.63%	5.00%	14.50%
1981	5,765	(1.40)%	118,054,512	8.45%	20,478	9.99%	5.00%	9.50%
1982	5,970	3.56%	134,293,920	13.76%	22,495	9.85%	6.00%	6.90%
1983	5,424	(9.15)%	131,355,840	(2.19)%	24,218	7.66%	6.00%	4.00%
1984	5,341	(1.53)%	131,327,856	(0.02)%	24,589	1.53%	6.00%	3.80%
1985 <sup>2</sup>	5,138	(3.80)%	125,594,688	(4.37)%	24,444	(0.59)%	6.00%	3.80%
1986	4,844	(5.72)%	128,601,816	2.39%	26,549	8.61%	6.00%	2.10%
1987	4,873	0.60%	135,453,096	5.33%	27,797	4.70%	6.00%	4.10%
1988	4,725	(3.04)%	132,685,608	(2.04)%	28,082	1.03%	6.00%	3.90%
1989	4,592	(2.81)%	142,024,296	7.04%	30,929	10.14%	6.00%	5.00%
1990	4,498	(2.05)%	145,612,704	2.53%	32,373	4.67%	6.00%	5.40%
1991	4,304	(4.31)%	149,054,136	2.36%	34,632	6.98%	6.00%	4.00%
1992	4,022	(6.55)%	141,618,648	(4.99)%	35,211	1.67%	6.00%	3.00%
1993	3,867	(3.85)%	147,076,752	3.85%	38,034	8.02%	6.00%	3.00%
1994	3,891	0.62%	155,213,016	5.53%	39,890	4.88%	6.00%	2.20%
1995	3,832	(1.52)%	152,996,856	(1.43)%	39,926	0.09%	6.00%	3.20%
1996	3,785	(1.23)%	162,276,840	6.07%	42,874	7.38%	6.00%	2.70%
1997	3,876	2.40%	171,175,944	5.48%	44,163	3.01%	5.00%	2.70%
1998 <sup>3</sup>	3,753	(3.17)%	\$ 170,627,112	(0.32)%	\$ 45,464	2.95%	5.00%	2.01%
<b>Average Increase (Decrease) for the Last 5 Years</b>		<b>(0.58%)</b>		<b>3.07%</b>		<b>3.66%</b>		<b>2.56%</b>

<sup>1</sup> Includes those members who were on disability.

<sup>2</sup> Total salaries include the 7% Board of Education "pick up" for the second time due to a change in the law.

<sup>3</sup> Average annual increase in average salary 1967-1998, about 6.6% compounded. The average annual increase in the annual average Chicago CPI for the same period is about 4.9%.

**HISTORY OF NEW ANNUITIES GRANTED  
SURVIVING TO END OF YEAR OF RETIREMENT  
1976 - 1998**

Year	Employee Annuityants		Total	Widow/Widower Annuityants of		Total	Total Annuityants
	Male	Female		Employees	Annuityants		
1976	139	69	208	34	41	75	283
1977	133	87	220	43	36	79	299
1978	182	86	268	39	41	80	348
1979	141	73	214	29	64	93	307
1980	187	81	268	34	60	94	362
1981	156	77	233	32	51	83	316
1982	120	53	173	38	52	90	263
1983	128	46	174	35	68	103	277
1984	169	54	223	24	56	80	303
1985	146	29	175	36	59	95	270
1986	188	53	241	29	51	80	321
1987	155	35	190	26	64	90	280
1988	121	33	154	13	70	83	237
1989	98	34	132	23	65	88	220
1990	123	32	155	21	66	87	242
1991	148	22	170	19	70	89	259
1992	166	22	188	22	65	87	275
1993 <sup>1</sup>	399	40	439	15	80	95	534
1994	44	7	51	7	62	69	120
1995	85	19	104	12	75	87	191
1996	76	11	87	11	66	77	164
1997	74	9	83	14	68	82	165
1998 <sup>1</sup>	463	15	478	15	54	69	547

<sup>1</sup> Early Retirement Incentive was offered during year

Note: Does not include any annuities that terminate within the year of retirement

## HISTORY OF TOTAL ANNUITIES

Year End	Number of Annuitants	Total Annuities	Average Annuities
<b>Employee Annuitants</b>			
1977	2,087	\$ 6,287,310	\$ 3,013
1978	2,188	7,162,866	3,274
1979	2,227	7,976,776	3,582
1980	2,379	8,958,700	3,766
1981	2,420	9,950,080	4,112
1982	2,419	10,725,716	4,434
1983	2,419	11,550,456	4,775
1984	2,469	13,123,860	5,315
1985	2,419	14,194,488	5,868
1986	2,487	16,737,498	6,730
1987	2,498	19,820,563	7,935
1988	2,494	21,240,063	8,516
1989	2,476	22,372,931	9,036
1990	2,481	24,922,371	10,045
1991	2,501	27,029,083	10,807
1992	2,534	29,359,490	11,586
1993	2,802	37,868,791	13,515
1994	2,680	37,679,445	14,059
1995	2,600	38,471,969	14,797
1996	2,537	39,261,371	15,476
1997	2,457	40,869,959	16,634
1998	2,808	\$ 57,648,658	\$ 20,530
<b>Widow/Widower Annuitants (Not Including Compensation)</b>			
1977	1,059	\$ 1,267,194	\$ 1,197
1978	1,075	1,381,263	1,285
1979	1,111	1,523,370	1,371
1980	1,154	1,689,076	1,464
1981	1,153	1,768,868	1,534
1982	1,174	1,927,743	1,642
1983	1,211	2,128,737	1,758
1984	1,228	2,304,994	1,877
1985	1,210	2,462,519	2,035
1986	1,226	2,610,422	2,129
1987	1,240	3,654,798	2,947
1988	1,265	3,820,665	3,020
1989	1,295	4,039,290	3,119
1990	1,317	5,292,391	4,019
1991	1,335	5,502,954	4,122
1992	1,359	5,743,428	4,226
1993	1,398	6,077,755	4,347
1994	1,403	6,264,691	4,465
1995	1,427	6,586,402	4,616
1996	1,417	6,777,664	4,783
1997	1,413	9,439,234	6,680
1998	1,414	\$ 13,878,195	\$ 9,815

## HISTORY OF BENEFIT EXPENSES BY TYPE

Year	Employee Annuities	Widow/er Annuities	Children's Annuities	Ordinary Disabilities	Duty Disabilities	Hospitalization Benefits	Other <sup>1</sup>	Total Benefits
1979	\$ 7,502,177	\$1,462,651	\$ 118,710	\$1,317,124	\$ 329,057	\$ 0	\$ 65,448	\$ 10,795,167
1980	8,591,787	1,614,326	118,864	1,408,837	365,269	0	62,208	12,161,291
1981	9,310,966	1,713,058	122,200	1,385,606	297,087	0	51,974	12,880,891
1982	10,193,364	1,832,665	110,911	1,284,329	382,788	0	47,378	13,851,435
1983	10,909,532	2,035,247	98,840	1,214,325	522,071	0	48,947	14,828,962
1984	12,236,436	2,229,432	91,720	1,257,938	726,190	0	40,592	16,582,308
1985	13,493,966	2,447,498	102,680	1,419,709	977,159	45,502	29,735	18,516,249
1986	15,582,979	2,571,348	95,080	1,285,079	1,032,647	283,945	30,394	20,881,472
1987	17,927,108	2,702,842	92,200	1,208,314	1,211,599	298,674	24,860	23,465,597
1988	20,682,766	3,743,668	127,950	1,191,429	1,370,321	309,744	41,810	27,467,688
1989	21,953,375	3,931,392	117,030	1,140,845	1,354,436	435,236	33,869	28,966,183
1990	23,449,216	4,276,814	136,620	1,186,935	1,173,540	1,784,878	21,180	32,029,183
1991	26,291,859	5,410,449	142,200	1,162,249	1,213,782	1,191,367	23,531	35,435,437
1992	28,557,579	5,668,669	140,310	1,176,769	1,317,890	1,218,448	21,610	38,101,275
1993	33,538,008	5,964,160	125,579	923,850	1,206,785	1,564,869	18,302	43,341,553
1994	37,739,455	6,170,546	119,708	968,551	1,056,507	1,581,929	11,720	47,648,416
1995	38,163,745	6,477,852	112,560	931,696	1,054,608	1,546,446	5,943	48,292,850
1996	38,961,283	6,661,485	121,102	860,543	1,005,569	1,516,537	2,646	49,129,165
1997	40,529,672	8,165,380	162,940	1,213,865	1,208,235	1,496,483	7,676	52,784,251
1998	\$ 49,416,345	\$9,643,251	\$ 226,640	\$1,045,069	\$1,012,008	\$1,665,859	\$ 5,826	\$63,014,998

<sup>1</sup> Includes compensation annuities, supplemental annuities, and Reciprocal Act reimbursements.

## HISTORY OF BENEFIT EXPENSES BY TYPE

Year	Employee Annuities	Widow/er Annuities	Children's Annuities	Ordinary Disabilities	Duty Disabilities	Hospitalization Benefits	Other <sup>1</sup>	Total Benefits
<b>Percent of Total Benefits</b>								
1979	69.50%	13.55%	1.10%	12.20%	3.05%	0.00%	0.60%	100.00%
1980	70.65%	13.27%	0.98%	11.58%	3.00%	0.00%	0.52%	100.00%
1981	72.29%	13.30%	0.95%	10.76%	2.31%	0.00%	0.39%	100.00%
1982	73.59%	13.23%	0.80%	9.27%	2.76%	0.00%	0.35%	100.00%
1983	73.57%	13.72%	0.67%	8.19%	3.52%	0.00%	0.33%	100.00%
1984	73.79%	13.44%	0.55%	7.59%	4.38%	0.00%	0.25%	100.00%
1985	72.88%	13.22%	0.55%	7.67%	5.28%	0.25%	0.15%	100.00%
1986	74.63%	12.31%	0.46%	6.15%	4.95%	1.36%	0.14%	100.00%
1987	76.40%	11.52%	0.39%	5.15%	5.16%	1.27%	0.11%	100.00%
1988	75.30%	13.63%	0.47%	4.34%	4.99%	1.13%	0.14%	100.00%
1989	75.79%	13.57%	0.40%	3.94%	4.68%	1.50%	0.12%	100.00%
1990	73.21%	13.35%	0.43%	3.71%	3.66%	5.57%	0.07%	100.00%
1991	74.20%	15.27%	0.40%	3.28%	3.43%	3.36%	0.06%	100.00%
1992	74.95%	14.88%	0.37%	3.09%	3.46%	3.20%	0.05%	100.00%
1993	77.38%	13.76%	0.29%	2.13%	2.78%	3.61%	0.05%	100.00%
1994	79.20%	12.95%	0.25%	2.03%	2.22%	3.32%	0.03%	100.00%
1995	79.03%	13.41%	0.23%	1.93%	2.18%	3.20%	0.02%	100.00%
1996	79.29%	13.56%	0.25%	1.75%	2.05%	3.09%	0.01%	100.00%
1997	76.78%	15.47%	0.31%	2.30%	2.29%	2.84%	0.01%	100.00%
1998	78.42%	15.30%	0.36%	1.66%	1.61%	2.64%	0.01%	100.00%
<b>Percent Increase from Year to Year</b>								
1980	14.52%	10.37%	0.13%	6.96%	11.00%	0.00%	(4.95%)	12.65%
1981	8.37%	6.12%	2.81%	(1.65%)	(18.67%)	0.00%	(16.45%)	5.92%
1982	9.48%	6.98%	(9.24%)	(7.31%)	28.85%	0.00%	(8.84%)	7.53%
1983	7.03%	11.05%	(10.88%)	(5.45%)	36.39%	0.00%	3.31%	7.06%
1984	12.16%	9.54%	(7.20%)	3.59%	39.10%	0.00%	(17.07%)	11.82%
1985	10.28%	9.78%	11.95%	12.86%	34.56%	0.00%	(26.75%)	11.66%
1986	15.48%	5.06%	(7.40%)	(9.48%)	5.68%	524.03%	2.22%	12.77%
1987	15.04%	5.11%	(3.03%)	(5.97%)	17.33%	5.19%	(18.21%)	12.38%
1988	15.37%	38.51%	38.77%	(1.40%)	13.10%	3.71%	68.18%	17.06%
1989	6.14%	5.01%	(8.53%)	(4.25%)	(1.16%)	40.51%	(18.99%)	5.46%
1990	6.81%	8.79%	16.74%	4.04%	(13.36%)	310.09%	(37.46%)	10.57%
1991	12.12%	26.51%	4.08%	(2.08%)	3.43%	(33.25%)	11.10%	10.63%
1992	8.62%	4.77%	(1.33%)	1.25%	8.58%	2.27%	(8.16%)	7.52%
1993	17.44%	5.21%	(10.50%)	(21.49%)	(8.43%)	28.43%	(15.31%)	13.75%
1994	12.53%	3.46%	(4.68%)	4.84%	(12.45%)	1.09%	(35.96%)	9.94%
1995	1.12%	4.98%	(5.97%)	(3.81%)	(0.18%)	(2.24%)	(49.29%)	1.35%
1996	2.09%	2.83%	7.59%	(7.64%)	(4.65%)	(1.93%)	(55.48%)	1.73%
1997	4.02%	22.58%	34.55%	41.06%	20.15%	(1.32%)	190.09%	7.44%
1998	21.93%	18.10%	39.09%	(13.91%)	(16.24%)	11.32%	(24.11%)	19.38%

<sup>1</sup> Includes compensation annuities, supplemental annuities, and Reciprocal Act reimbursements.

**HISTORY OF INVESTMENT YIELDS**  
(Amortized Cost)

Year	Investment Yield on Total Assets				Investment Yield on Invested Assets			
	Excluding Gain/Loss		Including Gain/Loss		Excluding Gain/Loss		Including Gain/Loss	
	Gross	Net <sup>1</sup>	Gross	Net <sup>1</sup>	Gross	Net <sup>1</sup>	Gross	Net <sup>1</sup>
1982	9.88%	---	7.64%	---	10.47%	---	8.09%	---
1983	9.37%	9.30%	11.14%	11.07%	9.79%	9.72%	11.64%	11.57%
1984	9.67%	9.58%	8.88%	8.79%	10.12%	10.03%	9.30%	9.21%
1985	8.89%	8.72%	16.34%	16.17%	9.27%	9.10%	17.07%	16.89%
1986	7.44%	7.14%	16.06%	15.74%	7.72%	7.41%	16.69%	16.35%
1987	6.50%	6.20%	11.90%	11.59%	6.70%	6.39%	12.28%	11.95%
1988	6.81%	6.55%	7.78%	7.52%	6.97%	6.70%	7.96%	7.69%
1989	7.06%	6.71%	11.50%	11.14%	7.21%	6.85%	11.75%	11.38%
1990	7.05%	6.69%	7.67%	7.31%	7.22%	6.85%	7.85%	7.48%
1991	6.45%	6.11%	10.53%	10.18%	6.61%	6.27%	10.80%	10.44%
1992	5.93%	5.56%	9.00%	8.63%	6.06%	5.69%	9.21%	8.83%
1993	5.14%	4.75%	11.72%	11.31%	5.23%	4.84%	11.95%	11.53%
1994	5.20%	4.85%	6.52%	6.17%	5.30%	4.94%	6.64%	6.28%
1995	5.30%	4.95%	10.79%	10.43%	5.38%	5.03%	10.96%	10.60%
1996	4.98%	4.62%	12.16%	11.78%	5.02%	4.66%	12.27%	11.88%
1997	5.16%	4.80%	14.72%	14.32%	5.46%	5.08%	15.61%	15.19%
1998	4.54%	4.16%	16.89%	16.46%	5.19%	4.75%	19.46%	18.96%
<b>5-Year Average</b>	6.06%	5.63%	14.56%	14.10%	6.31%	5.86%	15.38%	14.89%

Year	Actuarial Assum.	Average Insurance Company	30 Year Treasury	3-Month Treasury Bills	Market Asset Value		Actuarial Asset Value	
					Investment Yield on Tot. Assets	Investment Yield on Inv. Assets	Investment Yield on Tot. Assets	Investment Yield on Inv. Assets
					1982	6.75%	8.91%	12.76%
1983	6.75%	8.96%	11.18%	8.52%	30.95%	32.11%	13.12%	13.63%
1984	6.75%	9.45%	12.39%	9.57%	7.35%	7.69%	11.30%	11.87%
1985	7.00%	9.63%	10.79%	7.47%	22.41%	23.40%	19.04%	19.93%
1986	7.50%	9.35%	7.80%	5.97%	12.25%	12.71%	20.02%	20.83%
1987	7.50%	9.10%	8.59%	5.82%	3.65%	3.76%	13.89%	14.33%
1988	7.50%	9.03%	8.96%	6.69%	10.84%	11.05%	6.71%	6.83%
1989	8.00%	9.10%	8.45%	8.12%	16.95%	18.46%	11.73%	12.75%
1990	8.00%	8.89%	8.61%	7.51%	2.46%	2.79%	5.56%	6.32%
1991	8.00%	8.63%	8.14%	5.42%	19.24%	22.03%	10.75%	12.30%
1992	8.00%	8.08%	7.67%	3.45%	7.93%	8.96%	11.47%	13.08%
1993	8.00%	7.52%	6.59%	3.02%	9.81%	10.84%	12.79%	14.18%
1994	8.00%	7.14%	7.37%	4.29%	(0.91)%	(1.02)%	4.78%	5.36%
1995	8.00%	7.34%	6.05%	5.15%	23.03%	26.08%	12.91%	14.53%
1996	8.00%	7.17%	6.71%	5.02%	11.50%	12.45%	12.11%	13.15%
1997	8.00%	7.17%	6.02%	5.26%	17.86%	19.40%	15.37%	16.75%
1998	8.00%	N/A	5.42%	4.86%	17.49%	19.72%	17.73%	20.14%
<b>5-Year Average</b>		7.45%	7.63%	5.52%	15.76%	17.50%	15.14%	16.82%

<sup>1</sup> Investment income is net of investment expense.

Notes: Yield = Investment Income/.5(Beginning Assets + End Assets - Investment Income)

Bonds valued at amortized cost, stocks at cost. Market values considered only in Market Value section.



## LEGISLATIVE CHANGES

### 1984 Session

- Direct deposit.
- Illinois Public Employees' Pension Laws Commission abolished.

### 1985 Session

- HB 398
- 1.80, 2.00, 2.20, 2.40% benefit accrual rate for those born before January 1, 1936 and retiring after August 16, 1985.
  - Reduction in age discount factor (employee and widow) from 0.5% to 0.25% for employees born before January 1, 1936 and retiring or dying in service after August 16, 1985.
  - Health insurance supplement up to \$25 per month if the employee is age 65 or older with at least 15 years of service (for each employee annuitant in receipt of annuity and for each employee who retires on annuity in the future).
  - Disability provisions extended to age 70 in certain cases.
  - Unisex money purchase factors for widows/widowers.
  - Membership provisions extended to age 70.
  - Board of Education employee contribution "pick up" included in the definition of salary for contribution and benefit purposes.

### 1986 Session

- HB 2630
- Cap removed on spouse maximum annuity.
  - Automatic post-retirement increase to begin on first anniversary of retirement following attainment at age 60.

### 1987 Session

- HB 2715
- 1.80, 2.00, 2.20, 2.40% benefit accrual rate for those born on or after January 1, 1936 and retiring on or after January 1, 1988.
  - Reduction in age discount factor (employee and widow) from .5% to .25% for employees born on or after January 1, 1936 and retiring or dying in service on or after January 1, 1988. No discount for employee age less than 60 if employee has at least 35 years of service.
  - Minimum employee annuity of \$250 and minimum spouse annuity of \$200 under certain conditions.
  - Change amount of children's benefits to \$120 or \$150 effective January 1, 1988.
  - Provide for certain "Good Government" initiatives.
  - Remove chronic alcoholism restriction for ordinary disability.

### 1988 Session

- No changes.

## LEGISLATIVE CHANGES

## 1989 Session

- SB 95 • Signed August 23, 1989. Changed the amount of fund paid health insurance "supplement" from January 1, 1988 until December 31, 1992 to \$65 per month for each annuitant not qualified to receive Medicare benefits (and \$35 if qualified) and from January 1, 1993 until December 31, 1997 the amounts are \$75 and \$45, respectively. Widows will now be supplemented and employee annuitants will no longer be required to meet the age 65 and 15 years of service requirements. The City will be required to pay 50% of the aggregated cost of health care claims for the retired group under all health care plans offered by the City. A procedure was established for the City to determine, with the help of an independent actuary, the aggregate cost of claims and premiums for each calendar year from 1989 through 1997 for the retired group.
- HB 332 • Signed August 23, 1989. Eliminated age related discriminatory provisions as required by Federal law or regulation. Provided for Age Discrimination changes effective January 1, 1988 to eliminate age 65 requirements for marriage in service and children's benefits, provided contributions after age 65 for spouse benefits, provided employee accumulation annuities be computed after age 70, provided employee and spouse accumulation annuities not be "fixed" at age 65, provided no age 70 restriction on disability benefits, provided for active members over age 65 that their accounts be "unfixed" and accumulate interest until the date of withdrawal, and provided that there be no age 70 membership limitation and removed the permitted "no spouse" refund at age 65.
- Eliminated the \$300, \$400 or \$500 maximum spouse annuity limitation for spouses of employees who retired before January 23, 1987 but die after January 23, 1987.
  - Allow for local labor officials on a leave of absence from the Fund to contribute for their current service as a local labor official.

## 1990 Session

- SB 136 • Amends Chapter 120, Paragraph 671 of the Revenue Act to provide for a separate listing on the tax bill of the dollar amount of tax due from the person assessed which is allocable to a tax levied under the Illinois Pension Code, or any other tax levied by a municipality or township for public pension or retirement purposes. Effective January 1, 1990.
- SB 1951 • Signed January 14, 1991. Beginning for withdrawals on or after January 1, 1991, annuity payments will be made as of the first day of the calendar month during the annuity payment period.
- 2.2% benefit accrual rate for employees retiring on or after July 1, 1990.
  - No discount for employee age less than 60 if employee has at least 30 years of service and retires on or after July 1, 1990.
  - Minimum employee annuity of \$350 and minimum spouse of \$300 under certain conditions.
  - Spouses and widows of employees retiring or dying in service on or after July 1, 1990 with 20 or more years of service at age 55 or over will be eligible for half of the employee's annuity discounted .25% for each month the spouse or widow is less than 55.
  - Retroactive eligibility for 35 years no discount and spouse and widow annuities computed as half of employee annuity.
  - Refund in lieu of \$300 annuity.

## LEGISLATIVE CHANGES

- Disability benefit retroactive one year from application; duty disability deductions in lieu for heart attack or stroke; 10% increase in duty disability benefit January 1 of the sixth year.
- Collateral for securities lending expanded.
- Fractional payment for refund repayment and temporary service authorized. Credit established by fractional payment shall be earliest service for which credit may be established.

### 1991 Session

- No changes.

### 1992 Session

- SB 1650
- Signed January 25, 1993.
  - Transfer provisions for County elected officers and judges.
  - **Early Retirement Incentive** was created for withdrawals from December 31, 1992 to June 30, 1993.
    - Requires a total of 20 years of service (with at least 10 in this fund, and up to 5 purchased under ERI).
    - Requires age 55 or older.
    - Requires an election form to be filed before June 1, 1993.
    - Requires a member to be a current contributor on November 1, 1992 and have not previously retired under this Article.
    - Provides for elimination of the age discount for employees 55-60.
    - Provides for 80% maximum final average salary compared to the present 75%.
    - Provides for an optional purchase of up to 5 years of service credit for 4.25% of the November 1, 1992 salary.
    - Provides for a 24-month option to pay for ERI service.
    - Provides for a tax levy derived from ERI contributions.

### 1993 Session

- No changes.

### 1994 Session

- No changes.

### 1995 Session

- SB 114
- Approved July 14, 1995.
  - The amount of earnings that may be taken into account by any retirement system is limited to the maximum dollar limitation specified in Section 401(a)(17) of the Internal Revenue Code, except for persons who became participants before 1996.
  - The Fund is authorized to make certain involuntary distributions required by Section 401(a)(9) of the Internal Revenue Code.

## LEGISLATIVE CHANGES

- SB 424
- Approved July 7, 1995.
  - The Pension Laws Commission was created as a legislative support services agency.

**1996 Session**

- SBJPA
- On August 20, 1996 the Small Business Job Protection Act was signed by President Clinton.
  - Treatment of governmental plans under Code Section 415:
    - Rule limiting annual benefit to 100% of the average of the highest 3 year compensation no longer applies.
    - Excess benefit plans are permitted to provide participants with benefits in excess of the Code Section 415 limits.
    - Early retirement reduction does not apply to certain survivor and disability benefits.
    - The definition of compensation now includes elective deferrals.
  - Taxation of distributions:
    - \$5,000 death benefit exclusion was repealed for deaths after August 20, 1996.
    - 5 year averaging for lump sum distributions was repealed effective January 1, 2000.
    - Annuity payments will be taxed according to a simplified general rule which uses investment and age as of annuity starting date for annuities which start on or after November 19, 1996.

**1997 Session**

- HB 15
- Approved June 27, 1997.
  - For withdrawals from service occurring on or after July 1, 1990, an alternate method of calculating salary using the annual equivalent of average salary instead of the salary rate applicable for the greatest part of the year is allowed.
  - Annuities effective on or after January 1, 1998 will be payable on the first day of the calendar month.
  - The prudent person rule for investing is allowed.
  - An eligible employee is allowed to contribute for all periods of temporary service while still in City service, for up to 90 days after withdrawal from City service, or while in reciprocal service.
  - The Board is allowed to adopt rules prescribing the manner of repaying refunds and purchasing any optional credit including accepting rollovers for payments.
  - The City is allowed to use deposits from any legal source (including borrowing) in lieu of all or part of the tax levy on or after June 27, 1997.
  - The requirement that any person employed by a retirement board of any other annuity and benefit fund in the City apply for participation in the Fund is eliminated.
  - Payment is allowed for service as a police officer, firefighter, or public school teacher in the City.
- HB 313
- Approved June 27, 1997.
  - For withdrawals from service occurring on or after June 27, 1997, an employee (and spouse) age 50 or over with at least 30 years of service is eligible to receive an annuity based on the minimum annuity formula.
  - For withdrawals from service occurring on or after June 27, 1997, an employee under age 60 with at least 25 years of service is not subject to an age discount.

## LEGISLATIVE CHANGES

- The spouse of an employee dying on or after June 27, 1997, while receiving an annuity is eligible for one half of the employee's annuity at death, discounted for the spouse's age under 55 at the time of employee's death. Excess spouse refund, if any, must be repaid.
- Beginning June 27, 1997, employees already receiving annuity will receive a minimum annuity of \$550 for life (reciprocal annuitants must have at least 5 years of Laborers' service). Any future employee annuitant withdrawing from service after attainment of age 60 with 10 or more years of service would qualify for this minimum.
- Beginning June 27, 1997, widow(er)s already receiving annuity will receive a minimum annuity of \$500 for life (reciprocal annuitants must have at least 5 years of Laborers' service). For future spouses of retirees, 10 years of service is required. For spouses of employees dying in service in the future, 5 years of service is required.
- Beginning June 27, 1997, the child's annuity will be increased to \$220 per month if the spouse of the deceased employee parent survives or \$250 per month if no such spouse survives.
- Coverage in the City group health insurance is extended through June 30, 2002, with some modification in the plans offered. Pension fund supplement remains \$45 and \$75 for Medicare eligible and non-Medicare eligible annuitants respectively.
- Beginning June 27, 1997, spouses of employees dying in service after age 50, with at least 30 years of service or after age 55 with 25 years of service, will be eligible to receive 50% of the annuity that the employee would have received. This annuity will be reduced by .25% per month for each month that the spouse is below the age of 55.

- HB 1641
- Approved August 22, 1997.
  - Beginning August 22, 1997, for spouses of employees who retired or died in service before January 23, 1987, the previous \$300, \$400, or \$500 maximum spouse annuity limitation is removed. If an excess spouse refund was paid, it must be repaid with interest.
  - Service paid under Section 11-221 can be counted for ordinary disability purposes for periods of disability on or after August 22, 1997.
  - Early Retirement Incentive was created for withdrawals from December 31, 1997 to June 30, 1998.
    - Requires a total of 20 years of service (with at least 10 in this fund, up to 5 in a Reciprocal fund, and up to 5 purchased under ERI) and age 55 or older.
    - Requires a total of 30 years of service (with at least 10 years of that service in this fund and without including any service purchased under the ERI provisions) and age 50 or older.
    - Requires an election form to be filed before June 1, 1998.
    - Requires a member to be a current contributor on November 1, 1997 and have not previously retired under this Article.
    - Provides for elimination of the age discount for employees age 55 to 60.
    - Provides for 80% maximum final average salary compared to the present 75%.
    - Provides for an optional purchase of up to 5 years of service credit for 4.25% of the November 1, 1997 salary.
    - Provides for a 24 month option to pay for ERI service.
    - Provides for a tax levy derived from ERI contributions.

## LEGISLATIVE CHANGES

## 1998 Session

- HB 3515
- Approved August 14, 1998.
  - Beginning January 1, 1999, the automatic increase for employee annuitants changed to 3% compounded for all past, current, and future annuitants regardless of the effective date of the annuity. Term annuities are not eligible for the increase.
  - Employees withdrawing after January 1, 1999 will be eligible for the minimum formula upon attainment of age 60 if they have at least 10 years of service.
  - Beginning January 1, 1999, employees already receiving an annuity as of August 14, 1998 will receive a minimum annuity of \$850 for life (reciprocal annuitants must have at least 5 years of Laborers' service). Any future employee annuitant withdrawing from service after August 14, 1998 after attainment of age 60 with 10 or more years of service would qualify for this minimum.
  - Beginning January 1, 1999, widow(er)s already receiving annuity as of August 14, 1998 will receive a minimum of \$800 for life (reciprocal annuitants must have at least 5 years of Laborers' service). For future spouses of retirees dying after August 14, 1998, 10 years of service is required. For spouses of employees dying in service after August 14, 1998, 5 years of service is required.
  - The conditions of the reversionary option were changed as follows:
    - The nullification of reversionary payment due to employee dying was reduced to 365 days after written designation was filed with the board and now applies only to parents, children, and siblings (not spouses).
    - Employees may reduce their monthly annuity by as much as \$400.
    - The increase annuity for spouse may now be as much as 100% the reduced employee annuity.
  - Spouses and widows that are eligible for the "50% employee amount" will no longer have this amount reduced to age 55 if the employee dies on or after January 1, 1998 and withdrew from service on or after June 27, 1997, and the employee retired after age 55 with at least 25 years of service or after age 50 with at least 30 years of service. The age discount will only apply if the spouse is under age 50.
  - The child of an annuitant who withdraws after January 1, 1998 having attained age 50 with at least 30 years of service is eligible for a child annuity.
  - The required employer multiple has been set at 1.00 for 1999 and beyond.
  - Money deposited under 5/11-169(f) may be used by the Fund for any of the purposes for which the proceeds of the tax levied by the City under this section may be used.
  - The number of board members is changed from 5 to 8. The make up of the board is 5 appointed persons, 2 employees and 1 annuitant. One of the new members will be appointed by the president of the local labor organization, which represents a majority of Laborers' employees. Another new appointee will be appointed by the Department of Personnel, both these positions will be served by 3-year terms. The annuitant member will be elected by a vote of all persons receiving a retirement annuity from the Fund. Elections will be held in every odd numbered year with member to serve a 2-year term.

## HISTORY OF RECOMMENDED EMPLOYER MULTIPLES AND TAXES LEVIED

Year of Report	Statutory Multiple	Normal Cost Plus Interest	Normal Cost Plus 40 Year Amortization	Normal Cost Plus 40 Year % of Salary Amortization
1982 a,b	1.37	1.34	1.40	1.03
1983 a,b	1.37	1.54	1.60	1.21
1984	1.37	1.58	1.63	1.30
1985 b	1.37	1.60	1.64	1.33
1986 a	1.37	0.99	1.00	0.94
1987 a	1.37	1.13	1.15	1.03
1988	1.37	1.03	1.04	0.98
1989 a, b	1.37	0.56	0.56	0.56
1990 a, b	1.37	1.01	1.02	0.93
1991	1.37	0.93	0.94	0.90
1992 b	1.37	0.80	0.80	0.80
1993 b	1.37	0.83	0.83	0.83
1994 a,b	1.37	0.64	0.64	0.64
1995 b	1.37	0.75	0.75	0.75
1996	1.37	0.66	0.66	0.66
1997 a,b,c,d	1.37	N/A	N/A	N/A
1998 a,b,d	1.00	N/A	N/A	N/A

a Change in actuarial assumptions.

b Change in benefits.

c Change in asset valuation method to GASB.

d No employer contribution is required under these valuation methods.

Tax Levy Year	City	Park	Total Tax Levy
1982	\$ 13,073,000	\$ 27,000	\$ 13,100,000
1983	14,231,000	29,000	14,260,000
1984	15,606,000	32,000	15,638,000
1985	15,618,000	29,000	15,647,000
1986	15,373,000	25,000	15,398,000
1987	15,260,000	21,000	15,281,000
1988	15,380,000	20,000	15,400,000
1989	15,442,000	14,000	15,456,000
1990	15,261,000	12,000	15,273,000
1991	16,382,000	10,000	16,392,000
1992	16,835,000	11,000	16,846,000
1993	18,036,000	11,000	18,047,000
1994	17,069,000	12,000	17,081,000
1995	18,726,000	9,500	18,735,500
1996	20,037,300	6,900	20,044,200
1997	19,645,400	4,300	19,649,700
1998	\$ 19,761,600	\$ 4,600	\$ 19,766,200

## HISTORY OF FINANCIAL INFORMATION

## History of Change in Unfunded Liability

Year	Salary Scale	Investment	Contribution	Amendments
1982	\$ 13,090,805	\$ (4,232,954)	\$ (249,949)	\$ 0
1983	4,185,219	(12,540,094)	(805,111)	28,057,130 HB 380, HB 1144
1984	(13,893,652)	(6,915,903)	(708,947)	0
1985	(20,313,749)	(33,560,632)	(404,023)	17,491,073 HB 398
1986	5,125,287	(38,156,363)	(1,490,690)	15,144,096 HB 2630
1987	(4,287,957)	(21,518,841)	(6,348,853)	29,787,872 HB 2715
1988	(17,739,334)	(1,525,244)	(4,261,332)	0
1989	15,101,648	(23,284,941)	(6,570,202)	20,350,471 SB 95, HB 332
1990	(5,117,094)	2,118,850	(12,015,013)	42,423,925 SB 1951
1991	4,169,961	(14,867,104)	(6,632,943)	341,496 SB 1951,
1992	(18,990,267)	(7,386,966)	(6,577,262)	0
1993	7,962,153	(26,152,154)	(12,818,511)	17,246,336 SB 1650
1994	(5,006,319)	15,775,880	(9,930,961)	0
1995	(27,371,677)	(21,760,538)	(12,471,281)	0
1996	6,691,153	(36,656,357)	(13,139,522)	0
1997	(40,624,317)	(14,097,083)	(13,116,981)	71,798,312 HB 15, HB 313, HB 1641
1998	(11,641,586)	(139,071,209)	(38,411,617)	223,664,910 HB 3515
<b>Totals</b>	<b>\$ (108,659,726)</b>	<b>\$ (383,831,653)</b>	<b>\$ (145,953,198)</b>	<b>\$ 466,305,621</b>

Year	Change in Assumptions	Miscellaneous	Total
1982 <sup>i,s</sup>	\$ (10,209,470)	\$ (2,498,897)	\$ (4,100,465)
1983 <sup>r</sup>	0	(5,235,581)	13,661,563
1984	0	3,858,364	(17,660,138)
1985	806,348	5,624,931	(30,356,052)
1986 <sup>i,s</sup>	(50,944,726)	13,613,438	(56,708,958)
1987 <sup>r,w</sup>	12,677,781	7,445,130	17,755,132
1988	3,593,768	3,136,595	(16,795,547)
1989 <sup>i</sup>	(39,817,812)	2,260,506	(31,960,330)
1990 <sup>r,w</sup>	10,229,489	4,280,144	41,920,301
1991	0	2,282,873	(14,705,717)
1992	0	(2,097,210)	(35,051,705)
1993	0	9,414,432	(4,347,744)
1994 <sup>r,d</sup>	0	(15,131,496)	(14,292,896)
1995	0	11,837,154	(49,766,342)
1996	0	(6,307,818)	(49,412,544)
1997 <sup>s,a,q</sup>	(154,480,018)	1,160,373	(149,359,714)
1998 <sup>r,w</sup>	1,694,598	13,416,866	49,651,962
<b>Totals</b>	<b>\$ (226,450,042)</b>	<b>\$ 47,059,804</b>	<b>\$ (351,529,194)</b>

i = interest; s = salary; r = retirement; w = withdrawal; d = health insurance;  
a = asset valuation method; q = mortality.

## HISTORY OF FINANCIAL INFORMATION

## Actuarial Accrued and Unfunded Liabilities (Book Value)

Year End	Actuarial Accrued Liability (AAL)	Assets at Amortized Cost	Funded Ratio	Unfunded AAL (Surplus)	Payroll	Unfunded AAL as % Payroll (Surplus)
1980	\$ 345,364,820	\$ 238,242,772	69.00%	\$ 107,122,048	\$ 108,854,496	98.41%
1981 <sup>a</sup>	367,980,498	254,234,605	69.10%	113,745,893	118,054,512	96.35%
1982 <sup>a,b</sup>	391,353,993	281,708,565	72.00%	109,645,428	134,293,920	81.65%
1983 <sup>a,b</sup>	444,711,069	321,404,079	72.30%	123,306,990	131,355,840	93.87%
1984	462,455,964	356,809,111	77.20%	105,646,853	131,327,856	80.45%
1985 <sup>b</sup>	495,844,974	420,554,173	84.80%	75,290,801	125,594,688	59.95%
1986 <sup>a</sup>	507,984,848	489,403,006	96.30%	18,581,842	128,601,816	14.45%
1987 <sup>a</sup>	583,284,026	546,947,052	93.80%	36,336,974	135,453,096	26.83%
1988	604,440,661	584,899,234	96.80%	19,541,427	132,685,608	14.73%
1989 <sup>a, b</sup>	633,894,540	646,313,443	102.00%	(12,418,903)	142,024,296	(8.74%)
1990 <sup>a, b</sup>	716,604,604	687,103,206	95.90%	29,501,398	145,612,704	20.26%
1991	761,056,602	746,260,920	98.10%	14,795,682	149,054,136	9.93%
1992 <sup>b</sup>	777,385,162	797,641,186	102.60%	(20,256,024)	141,618,648	(14.30%)
1993 <sup>b</sup>	847,293,445	871,897,213	102.90%	(24,603,768)	147,076,752	(16.73%)
1994 <sup>a,b</sup>	866,493,209	905,389,874	104.50%	(38,896,665)	155,213,016	(25.06%)
1995 <sup>b</sup>	890,375,387	979,038,393	110.00%	(88,663,006)	152,996,856	(57.95%)
1996	936,623,719	1,074,699,269	114.70%	(138,075,550)	162,276,840	(85.09%)
1997 <sup>a,b</sup>	1,040,650,534	1,204,439,298	115.70%	(163,788,764)	171,175,944	(95.68%)
1998 <sup>a,b</sup>	\$ 1,292,611,712	\$ 1,369,660,543	105.96%	\$ (77,048,831)	\$ 170,627,112	(45.16%)

## Solvency (Termination) Test (Book Value)

Year End	Retired Liability	Active Member Salary Deductions	Total Termination Liability	Assets at Amortized Cost Value	Termination Cost (Excess)	Quick Ratio <sup>c</sup>
1980	\$ 97,598,923	\$ 85,989,360	\$ 183,588,283	\$ 238,242,772	\$ (54,654,489)	129.77%
1981 <sup>a</sup>	107,291,048	88,378,748	195,669,796	254,234,605	(58,564,809)	129.93%
1982 <sup>a,b</sup>	128,901,825	106,730,627	235,632,452	281,708,565	(46,076,113)	119.55%
1983 <sup>a,b</sup>	142,713,639	111,888,474	254,602,113	321,404,079	(66,801,966)	126.24%
1984	158,514,452	117,882,073	276,396,525	356,809,111	(80,412,586)	129.09%
1985 <sup>b</sup>	113,743,284	94,516,563	208,259,847	420,554,173	(212,294,326)	201.94%
1986 <sup>a</sup>	179,881,434	122,432,246	302,313,680	489,403,006	(187,089,326)	161.89%
1987 <sup>a</sup>	215,483,599	126,554,299	342,037,898	546,947,052	(204,909,154)	159.91%
1988	229,024,543	133,793,756	362,818,299	584,899,234	(222,080,935)	161.21%
1989 <sup>a,b</sup>	241,519,125	143,445,325	384,964,450	646,313,443	(261,348,993)	167.89%
1990 <sup>a,b</sup>	271,401,625	150,398,932	421,800,557	687,103,206	(265,302,649)	162.90%
1991	291,757,778	156,649,525	448,407,303	746,260,920	(297,853,617)	166.42%
1990 <sup>b</sup>	311,642,762	161,298,914	472,941,676	797,641,186	(324,699,510)	168.66%
1993 <sup>b</sup>	403,591,438	152,059,845	555,651,283	871,897,213	(316,245,930)	156.91%
1994 <sup>a,b</sup>	395,721,090	166,182,247	561,903,337	905,389,874	(343,486,537)	161.13%
1995 <sup>b</sup>	401,047,985	175,400,781	576,448,766	979,038,393	(402,589,627)	169.84%
1996	405,010,948	187,040,430	592,051,378	1,074,699,269	(482,647,891)	181.52%
1997 <sup>a,b</sup>	455,856,814	199,007,766	654,864,580	1,204,439,298	(549,574,717)	183.92%
1998 <sup>a,b</sup>	\$ 771,214,483	\$ 177,746,739	\$ 948,961,222	\$ 1,369,660,543	\$ (420,699,321)	144.33%

<sup>a</sup> Change in valuation assumptions<sup>b</sup> Change in benefits<sup>c</sup> Quick ratio is defined as assets divided by the termination liability

## DEPARTMENT OF INSURANCE DISCLOSURE

## Pension Benefit Obligation (PBO)

	1997	1998
APV of Credited Projected Benefits		
Payable to Retirees and Beneficiaries	\$ 455,856,814	\$ 771,214,483
Current Employees:		
Accumulated Employee Contributions	199,007,766	177,746,739
Payable to "Vested" and "Non-vested" Employees	278,221,581	235,397,717
Total APV	933,086,161	1,184,358,939
Net Assets Available for Benefits, Actuarial Assets	1,328,085,799	1,530,395,014
Unfunded (Assets in Excess of) APV of Credited Projected Benefits	\$ (394,999,637)	\$ (346,036,075)
Percentage Funded	142.33%	129.22%
Unfunded APV as Percent of Payroll	(230.76)%	(202.80)%
Payroll	\$ 171,175,944	\$ 170,627,112

## GASB DISCLOSURE

## Plan Description

Any employee of the City of Chicago or the Board of Education employed under the provisions of the municipal personnel ordinance as labor service or any person employed by a retirement board of any annuity and benefit fund in the City is covered by the Laborers' & Retirement Board Employees' Annuity and Benefit Fund of Chicago (Laborers' Plan) which is a defined benefit single employer pension plan with a defined contribution minimum. Although this is a single employer plan, the defined benefits, as well as the employer and employee contribution levels, are mandated in Illinois State Statutes (Chapter 40, Pensions, Article 5/11) and may be amended only by the Illinois legislature. The City of Chicago accounts for the plan as a pension trust fund. The City of Chicago payroll for employees covered by the Laborers' Plan for the year ended December 31, 1998 was \$170,627,112. At December 31, 1998 the Laborers' Plan membership consisted of:

<b>Retirees and beneficiaries currently</b>	
receiving benefits (includes disabilities)	4,417
<b>Terminated (inactive) employees entitled to benefits or a</b>	
refund of contributions but not yet receiving them	1,704
<b>Current employees</b>	3,753

The Laborers' Fund provides retirement benefits as well as death and disability benefits. Employees age 55 or more with at least 10 years of service are entitled to receive a money purchase annuity with partial City contributions if under age 60 with less than 20 years of service. Employees age 55 or more with at least 20 years of service are entitled to receive a minimum formula annuity of 2.2% per year of service times the final average salary (highest average annual salary for any 4 consecutive years within the last 10 years of service immediately preceding the date of retirement). If the employee retires prior to age 60, the annuity shall be reduced by  $\frac{1}{4}$  of 1% for each month the employee is under age 60 if the employee has less than 25 years of service. The annuity is not discounted if the employee is age 50 with at least 30 years of service. Beginning January 1, 1999, there is a 10 year deferred vested benefit payable at age 60. The original annuity is limited to 75% of the highest average annual salary. The monthly annuity is increased by 3% at the first payment date following the later of age 60 or the first anniversary of retirement, and by 3% annually thereafter.

Covered employees are required to contribute 8.5% of their salary to the Laborers' Plan. If an employee leaves covered employment without qualifying for an annuity, accumulated contributions are refunded with interest (3% or 4% depending on when employee became a participant). The City of Chicago is required by state statutes to contribute the remaining amounts necessary to finance the requirements of the Fund. It is required to levy a tax at a rate not more than an amount equal to the total amount of contributions by the employees to the Fund made in the calendar year two years prior to the year for which the annual applicable tax is levied, multiplied by 1.00 annually.

## GASB DISCLOSURE

GASB Disclosure	
Actuarial Valuation Date	December 31, 1998
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Dollar
Amortization Period	40 Years (Open period)
Actuarial Asset Valuation Method	5 Year Average Smoothed Market
Actuarial Assumptions:	
Investment Rate of Return	8.0%
Projected Salary Increases	
Inflation	3.0%
Seniority Merit	2.0%
Post Retirement Benefit Increases	3.0% per year compounded for employee annuitants beginning at age 60

## Actuarial Accrued Liability (AAL)

Actuarial Accrued Liability (AAL)	1997	1998
Payable to Retirees and Beneficiaries	\$ 455,856,814	\$ 771,214,483
Current Employees:		
Accumulated Employee Contributions including statutory interest	199,007,766	177,746,739
Payable to Vested and Non-Vested Employees (not split)	385,785,954	343,650,490
Total Actuarial Accrued Liability	1,040,650,534	1,292,611,712
Net Plan Actuarial Assets	1,328,085,799	1,530,395,014
Unfunded AAL (Assets in Excess of AAL)	\$ (287,435,265)	\$ (237,783,303)
Percentage Funded	127.62%	118.40%
Unfunded AAL as Percent of Payroll	(167.92)%	(139.36)%
Payroll	\$ 171,175,944	\$ 170,627,112

## GASB DISCLOSURE

## Schedule of Employer Contributions

	1997	1998
Contribution multiplier	1.37	1.37
City of Chicago contribution, net of reserve for loss in tax collection <sup>1</sup>	\$ 19,328,981	\$ 19,724,301
City of Chicago contribution as a percent of covered payroll	11.91%	11.52%
Employee contributions	\$ 15,332,208	\$ 18,687,316
Employee contributions as a percent of covered payroll	9.45%	10.92%
Actuarially Determined Contribution – ADC (NC+40-Year level dollar)	\$ 2,525,068	\$ 0
ADC as a percent of covered payroll	1.56%	0.00%
Current year normal cost	\$ 21,544,208	\$ 21,761,436
Normal cost as a percent of covered payroll	13.28%	12.71%
40 year level dollar amortization of the unfunded liability	\$ 0	\$ 0
40 year level dollar amortization as a percent of covered payroll	0.00%	0.00%

<sup>1</sup> Includes miscellaneous income.

For the year 1998 (based on a 1998 multiple of 1.37) the City contributed (after tax levy losses of 4%) \$19,724,301 or 11.52% of payroll. For 1998, the employee contributions were \$18,687,316 or 10.92% of payroll. As the Annual Required Contribution (ARC) was Not Applicable, there was an excess of contributions over payroll of 22.44% or \$38,411,616.

It is estimated for 1999 that the contributions will be enough to meet (and exceed) the Annual Required Contribution.

## Schedule of Funding Progress Restated to Actuarial Asset Values for GASB No. 25

Year	Actuarial Assets	Actuarial Accrued Liability (AAL)	Percentage Funded	Unfunded AAL (Surplus)	Annual Covered Payroll	UAAL (Surplus) as a % of Payroll
1985 <sup>b</sup>	\$ 425,851,845	\$ 495,844,974	85.88%	\$ 69,993,129	\$ 125,594,688	55.73%
1986 <sup>a</sup>	517,040,712	507,984,848	101.78%	(9,055,864)	128,601,816	(7.04%)
1987 <sup>a</sup>	571,065,219	583,284,026	97.91%	12,218,807	135,453,096	9.02%
1988	606,321,849	604,440,661	100.31%	(1,881,188)	132,685,608	(1.42%)
1989 <sup>a,b</sup>	671,449,305	633,894,540	105.92%	(37,554,765)	142,024,296	(26.44%)
1990 <sup>a,b</sup>	705,841,707	716,604,604	98.50%	10,762,897	145,612,704	7.39%
1991	772,520,978	761,056,602	101.51%	(11,464,376)	149,054,136	(7.69%)
1992 <sup>b</sup>	844,916,889	777,385,162	108.69%	(67,531,727)	141,618,648	(47.69%)
1993 <sup>b</sup>	937,094,502	847,293,445	110.60%	(89,801,057)	147,076,752	(61.06%)
1994 <sup>a,b</sup>	960,327,842	866,493,209	110.83%	(93,834,633)	155,213,016	(60.46%)
1995 <sup>b</sup>	1,063,261,239	890,375,387	119.42%	(172,885,852)	152,996,856	(113.00%)
1996	1,172,316,925	936,623,719	125.16%	(235,693,206)	162,276,840	(145.24%)
1997 <sup>a,b</sup>	1,328,085,799	1,040,650,534	127.62%	(287,435,264)	171,175,944	(167.92%)
1998 <sup>a,b</sup>	\$ 1,530,395,014	\$ 1,292,611,712	118.40%	\$ (237,783,303)	\$ 170,627,112	(139.36%)

<sup>a</sup> Change in actuarial assumptions.

<sup>b</sup> Change in benefits.

## GASB DISCLOSURE

## Annual Required Contributions of the Employer

Year	Annual Required Contribution (ARC) of the Employer <sup>1</sup>	Required Statutory Basis <sup>2</sup>	Actual <sup>3</sup>	Percent of ARC Contributed
1986	\$ 14,190,554	\$ 14,765,250	\$ 14,765,250	104.05%
1987	7,123,405	14,659,550	14,745,709	207.00%
1988	9,276,456	14,784,800	15,157,663	163.40%
1989	8,290,572	14,843,700	15,257,738	184.04%
1990	2,717,433	14,668,000	17,029,493	626.68%
1991	9,159,274	15,736,320	15,989,678	174.57%
1992	7,987,976	16,172,160	16,574,721	207.50%
1993	2,774,135	17,278,850	17,734,532	639.28%
1994	1,568,675	16,346,450	16,954,372	1080.81%
1995	0	17,976,768	18,311,622	N/A
1996	0	19,242,432	19,623,717	N/A
1997	0	18,863,712	19,328,981	N/A
1998	\$ 0	\$ 18,971,520	\$ 19,724,301	N/A

<sup>1</sup> Under Normal Cost plus 40 Year Level-dollar Amortization. Negative ARC values are set to zero, as no contribution is then required.

<sup>2</sup> Tax levy after 4% overall loss.

<sup>3</sup> Net tax levy plus miscellaneous. Includes prior year adjustments for taxes beginning in 1991.

## Trend Information

Year	Assets Available for Benefits as a % of Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability (Surplus) as a % of Covered Payroll End of Year	Employer Contributions as a % of Covered Payroll Beginning of Year
1986	101.78%	(7.21)%	0.00%
1987	97.91%	9.50%	11.74%
1988	100.31%	(1.39)%	11.79%
1989	105.92%	(28.30)%	11.26%
1990	98.50%	7.58%	12.83%
1991	101.51%	(7.87)%	11.26%
1992	108.69%	(45.31)%	11.38%
1993	110.60%	(63.41)%	11.90%
1994	110.83%	(60.46)%	11.97%
1995	119.42%	(113.00)%	11.80%
1996	125.16%	(145.24)%	12.83%
1997	127.62%	(167.92)%	11.91%
1998	118.40%	(139.36)%	11.52%

## GASB DISCLOSURE

## Actuarially Determined Contributions – ADC (Actuarial Asset Values)

	A	B	C	D	A	B	C	D
	Normal Cost	NC Plus Interest	NC Plus GASB 40-Year Amortization	NC Plus Increasing % of Salary	Expressed as a Percentage of Salary Year Beginning of Year			
1988 <sup>a</sup>	\$ 20,008,465	\$ 20,892,329	\$ 20,944,184	\$ 20,570,466	15.56%	16.25%	16.29%	16.00%
1989	19,803,585	19,658,771	19,651,783	19,710,637	14.62%	14.51%	14.51%	14.55%
1990 <sup>a,b</sup>	17,819,965	14,929,002	14,789,498	15,964,410	13.43%	11.25%	11.15%	12.03%
1991 <sup>a,b</sup>	20,777,427	21,605,954	21,645,935	21,309,214	14.63%	15.21%	15.24%	15.00%
1992	21,637,649	20,755,122	20,712,536	21,071,202	14.86%	14.25%	14.22%	14.47%
1993 <sup>b</sup>	20,261,167	15,062,580	14,811,720	16,924,471	13.59%	10.11%	9.94%	11.35%
1994 <sup>b</sup>	21,316,661	14,403,782	14,070,199	16,879,653	15.05%	10.17%	9.94%	11.92%
1995 <sup>a,b</sup>	20,451,183	13,227,800	12,879,233	15,814,878	13.18%	8.52%	8.30%	10.19%
1996 <sup>b</sup>	21,340,898	8,032,158	7,389,940	12,798,727	13.95%	5.25%	4.83%	8.37%
1997	21,544,208	3,400,537	2,525,068	9,898,787	13.28%	2.10%	1.56%	6.10%
1998 <sup>a</sup>	21,761,436	(365,341)	(1,433,003)	7,559,480	12.71%	(0.21)%	(0.84)%	4.42%
1999 <sup>a,b</sup>	\$ 24,059,897	\$ 5,755,330	\$ 4,872,098	\$ 12,311,206	14.10%	3.37%	2.86%	7.22%

## Actual Employer and Employee Contribution

	F	F	E	F
Year	Employer (plus misc.)	Total Employee	Expressed as a Percentage of Salary Beginning of Year	
1988	\$ 15,157,663	\$ 11,740,621	11.79%	9.13%
1989	15,257,738	12,529,606	11.26%	9.25%
1990	17,029,493	12,805,486	12.83%	9.65%
1991	15,989,678	13,691,711	11.26%	9.64%
1992	16,574,721	13,025,003	11.38%	8.94%
1993	17,734,532	15,345,146	11.90%	10.30%
1994	16,954,732	14,293,250	11.97%	10.09%
1995	18,311,622	14,610,842	11.80%	9.41%
1996	19,623,717	14,856,703	12.83%	9.71%
1997	19,328,981	15,332,208	11.91%	9.45%
1998	19,724,301	18,687,316	11.52%	10.92%
1999 est	\$ 14,089,822	\$ 15,356,440	8.26%	9.00%

## Deficiency (Excess) in Annual Contribution

	G	H	I	G	H	I
Year	NC Plus Interest	NC Plus GASB 40-Year Amortization	NC Plus Increasing % of Salary	Expressed as a Percentage of Salary Beginning of Year		
1988 <sup>a</sup>	\$ (6,005,955)	\$ (5,954,100)	\$ (6,327,818)	(4.67)%	(4.63)%	(4.92)%
1989	(8,128,573)	(8,135,561)	(8,076,707)	(6.00)%	(6.01)%	(5.96)%
1990 <sup>a,b</sup>	(14,905,977)	(15,045,481)	(13,870,569)	(11.23)%	(11.34)%	(10.45)%
1991 <sup>a,b</sup>	(8,075,435)	(8,035,454)	(8,372,175)	(5.69)%	(5.66)%	(5.89)%
1992	(8,844,602)	(8,887,188)	(8,528,522)	(6.07)%	(6.10)%	(5.86)%
1993 <sup>b</sup>	(18,017,098)	(18,267,958)	(16,155,207)	(12.09)%	(12.26)%	(10.84)%
1994 <sup>b</sup>	(16,844,200)	(17,177,783)	(14,368,329)	(11.89)%	(12.13)%	(10.15)%
1995 <sup>a,b</sup>	(19,694,664)	(20,043,231)	(17,107,586)	(12.69)%	(12.91)%	(11.02)%
1996 <sup>b</sup>	(26,448,262)	(27,090,480)	(21,681,693)	(17.29)%	(17.71)%	(14.17)%
1997	(31,260,651)	(32,136,120)	(24,762,401)	(19.26)%	(19.80)%	(15.26)%
1998 <sup>a,b</sup>	(38,165,727)	(38,165,727)	(30,606,247)	(20.30)%	(20.30)%	(17.88)%
1999 est	\$ (23,690,932)	\$ (24,574,164)	\$ (17,135,056)	(13.88)%	(14.40)%	(10.04)%

<sup>a</sup> Change in actuarial assumptions. <sup>b</sup> Change in benefits. All computations restated to the actuarial asset value.

## GASB DISCLOSURE

## History of Financial Information

Year End	Employee Contributions <sup>1</sup>	Employer Contributions <sup>2</sup>	Investment Income <sup>3</sup>	Total Income
1980	\$ 9,729,912	\$ 11,791,330	\$ 12,626,861	\$ 34,148,103
1981	10,522,389	12,392,694	9,631,793	32,546,876
1982	11,546,286	12,589,417	19,729,269	43,864,972
1983	11,608,537	13,681,225	31,809,924	57,099,686
1984	11,531,243	14,996,619	28,832,621	55,360,483
1985	11,569,775	15,035,039	58,720,209	85,325,023
1986	11,691,095	14,765,250	67,653,382	94,109,727
1987	11,774,209	14,745,709	58,220,924	84,740,842
1988	11,740,621	15,157,663	42,386,313	69,284,597
1989	12,529,606	15,257,738	66,965,633	94,752,977
1990	12,805,485	17,029,493	49,265,200	79,100,178
1991	13,691,711	15,989,678	71,677,465	101,358,854
1992	13,025,003	16,574,721	66,508,987	96,108,711
1993	15,345,146	17,734,532	92,440,444	125,520,122
1994	14,293,250	16,954,372	56,083,250	87,330,872
1995	14,610,842	18,311,622	96,491,994	129,414,458
1996	14,856,703	19,623,717	117,752,240	152,232,660
1997	15,332,208	19,328,981	156,275,504	190,936,693
1998	\$18,687,316	\$ 19,724,301	\$ 200,428,800	\$ 238,840,417

<sup>1</sup> Includes deductions in lieu for disability.

<sup>2</sup> Net tax levy and miscellaneous income. Includes prior year adjustments for taxes beginning in 1991.

<sup>3</sup> Includes realized net gain or loss on sale of assets. Unrealized appreciation has not been included. Net of investment expense. Net securities lending included under investment income.

Year	Benefits	Administrative and Investment Expense	Refunds <sup>4</sup>	Total	Income Less Pay Outs <sup>5</sup>
1980	\$ 12,161,292	\$ 440,591	\$ 4,195,056	\$ 16,796,939	\$ 17,351,164
1981	12,880,890	640,795	3,074,561	16,596,246	15,950,630
1982	13,851,434	626,772	1,860,636	16,338,842	27,526,130
1983	14,828,962	641,349	1,936,538	17,406,849	39,692,837
1984	16,582,310	766,485	3,124,454	20,473,249	34,887,234
1985	18,516,249	1,266,552	2,273,021	22,055,822	63,269,201
1986	20,881,472	2,006,912	2,886,317	25,774,701	68,335,026
1987	23,465,597	2,223,312	2,012,475	27,701,384	57,039,458
1988	27,467,689	2,264,746	1,756,290	31,488,725	37,795,872
1989	28,966,184	2,973,149	1,832,628	33,771,961	60,981,016
1990	32,029,184	3,340,152	3,064,232	38,433,568	40,666,610
1991	35,435,437	3,414,439	3,351,263	42,201,139	59,157,715
1992	38,101,275	3,911,716	2,715,455	44,728,446	51,380,265
1993	43,341,553	4,307,840	3,614,702	51,264,095	74,256,027
1994	47,648,416	4,166,122	2,023,674	53,838,212	33,492,660
1995	48,292,850	4,272,012	3,201,077	55,765,939	73,648,519
1996	49,129,165	4,801,526	2,641,093	56,571,784	95,660,876
1997	52,784,251	5,277,669	3,134,744	61,196,664	129,740,029
1998	\$ 63,014,998	\$ 6,206,920	\$ 4,397,253	\$ 73,619,171	\$ 165,221,245

<sup>4</sup> Includes adjustments for payables and receivables after 1990.

<sup>5</sup> Does not include prior year adjustments for taxes for years before 1991.

Does not include adjustments for payables and receivables after 1990.

## GASB DISCLOSURE

**Actuarial Accrued Liability Prioritized Solvency Test  
Restated to Actuarial Asset Values for GASB No. 25**

The prioritized solvency test is another means of checking a system's progress under its funding program, based on the Actuarial Accrued Liability. In this test the plan's present assets (cash and investments) are compared with obligations in order of priority: (1) active member contributions on deposit; (2) the present value of future benefits to present retired lives; (3) the employer financed portion for present active members. In a system that has been following the discipline of financing, the obligation for active member contributions on deposit (present value 1) and the present value of future benefits to present retired lives (present value 2) will be fully covered by present assets (except in rare circumstances). In addition, the Actuarial Accrued Liability for present active members (present value 3) will be partially covered by the remainder of present assets. Generally, if the system has been following a system of amortizing the Unfunded Liability, the funded portion of present value (3) will increase over time.

**Actuarial Accrued Liability Prioritized Solvency Test  
Restated to Actuarial Asset Values for GASB No. 25**

Valuation Date Dec. 31	(1) Active Member Contributions	(2) Retirees and Beneficiaries	(3) Active Members (ER Financed Portion)	Actuarial Asset Values for GASB <sup>c</sup>	Portion (%) of Present Value Covered by Assets		
					(1)	(2)	(3)
1985 a,b	\$ 94,516,563	\$ 113,743,284	\$ 287,585,127	\$ 425,851,845	100.00%	100.00%	75.70%
1986 a,b	122,432,246	179,881,434	205,671,168	517,040,712	100.00%	100.00%	100.00%
1987 a, b	126,554,299	215,483,599	241,246,128	571,065,219	100.00%	100.00%	94.90%
1988	133,793,756	229,024,543	241,622,362	606,321,849	100.00%	100.00%	100.00%
1989 a,b	143,445,325	241,519,125	248,930,090	671,449,305	100.00%	100.00%	100.00%
1990 a,b	150,398,932	271,401,625	294,804,047	705,841,707	100.00%	100.00%	96.30%
1991 b	156,649,525	291,757,778	312,649,299	772,520,978	100.00%	100.00%	100.00%
1992	161,298,914	311,642,762	304,443,486	844,916,889	100.00%	100.00%	100.00%
1993 b	152,059,845	403,591,438	291,642,162	937,094,502	100.00%	100.00%	100.00%
1994	166,182,247	395,721,090	304,589,872	960,327,842	100.00%	100.00%	100.00%
1995 b	175,400,781	401,047,985	313,926,621	1,063,261,239	100.00%	100.00%	100.00%
1996	187,040,430	405,010,948	344,572,341	1,172,316,925	100.00%	100.00%	100.00%
1997 a,b	199,007,766	455,856,814	385,785,954	1,328,085,799	100.00%	100.00%	100.00%
1998 a,b	\$177,746,739	\$ 771,214,483	\$ 343,650,489	\$1,530,395,014	100.00%	100.00%	100.00%

<sup>a</sup> Change in actuarial assumptions.

<sup>b</sup> Change in benefits.

<sup>c</sup> Change in asset valuation method for all years.

Note: Active Members (ER Financed Portion) was based on credited projected value of benefits prior to 1997.

## GASB DISCLOSURE

**Actuarial Asset Calculation Method  
(Reflecting Smoothed Market Value)**

The Investment Asset Value is valued at cost times the average ratio of the market to cost for the current year and the prior four years. All other assets, including Cash and Cash equivalents, are valued at market value for the total actuarial asset value calculations.

Year	Invested Assets		Ratio	5-Year Average	Other Assets (Including Cash & Equivalents)	
	Book	Market			Book	Market
1984	334,880,492	346,678,153	1.035229	0.980330	21,928,619	21,928,619
1985	399,372,114	436,253,673	1.092349	1.013265	21,182,059	21,182,059
1986	467,263,563	500,210,957	1.070511	1.059148	22,139,443	22,139,443
1987	527,622,835	516,875,715	0.979631	1.045711	19,324,217	19,324,217
1988	567,787,313	573,994,403	1.010932	1.037730	17,111,921	17,111,921
1989	550,369,896	591,525,222	1.074778	1.045640	95,943,547	95,960,527
1990	608,259,812	619,281,491	1.018120	1.030794	78,843,394	78,851,142
1991	636,021,563	714,240,017	1.122981	1.041288	110,239,357	110,239,357
1992	706,524,926	782,655,419	1.107753	1.066913	91,116,260	91,116,260
1993	785,433,810	857,229,837	1.091409	1.083008	86,463,403	86,463,403
1994	777,073,849	787,228,647	1.013068	1.070666	128,316,025	128,341,293
1995	882,284,158	1,007,646,707	1.142089	1.095460	96,754,235	96,754,235
1996	990,690,164	1,127,759,026	1.138357	1.098535	84,009,105	84,009,105
1997	1,089,108,614	1,288,120,360	1.182729	1.113530	115,330,683	115,330,683
1998	\$1,170,817,222	\$1,416,897,386	1.210178	1.137284	\$ 198,843,321	\$ 198,843,321

Year	Total Assets at Book Value	Total Assets at Market Value	Total Assets at Actuarial Value
1983	\$ 321,404,079	\$ 336,757,485	\$ 306,942,818
1984	356,809,111	368,606,772	350,222,012
1985	420,554,173	457,435,732	425,851,845
1986	489,403,006	522,350,400	517,040,712
1987	546,947,052	536,199,932	571,065,219
1988	584,899,234	591,106,324	606,321,849
1989	646,313,443	687,485,749	671,449,305
1990	687,103,206	698,132,633	705,841,707
1991	746,260,920	824,479,374	772,520,978
1992	797,641,186	873,771,679	844,916,889
1993	871,897,213	943,693,240	937,094,502
1994	905,389,874	915,569,940	960,327,842
1995	979,038,393	1,104,400,942	1,063,261,239
1996	1,074,699,269	1,211,768,131	1,172,316,925
1997	1,204,439,298	1,403,451,043	1,328,085,799
1998	\$ 1,369,660,543	\$ 1,615,740,707	\$ 1,530,395,014

## GASB DISCLOSURE

## Reconciliation of Assets -- December 31, 1998

	Market	Actuarial	Book
<b>Additions:</b>			
<b>Contributions:</b>			
Employer <sup>1</sup>	\$ 19,721,301.96	\$ 19,721,301.96	\$ 19,721,301.96
Plan Member	18,687,315.80	18,687,315.80	18,687,315.80
Total Contributions	38,408,617.76	38,408,617.76	38,408,617.76
<b>Investment Income:</b>			
Interest	45,425,426.65	45,425,426.65	45,425,426.65
Dividends	8,398,149.05	8,398,149.05	8,398,149.05
Venture Capital Income, net	93,568.00	93,568.00	93,568.00
Real Estate Operating Income, net	2,052,278.33	2,052,278.33	2,052,278.33
Realized Gain (Loss)	143,286,410.16	143,286,410.16	143,286,410.16
Net Appreciation	47,068,418.44	37,087,970.54	0.00
Total Investment Income	246,324,250.63	236,343,802.73	199,255,832.19
Less: Investment Expenses	4,356,606.48	4,356,606.48	4,356,606.48
Net Investment Income	241,967,644.15	231,987,196.25	194,899,225.71
<b>From Securities Lending Activities</b>			
Securities Lending Income	17,634,313.48	17,634,313.48	17,634,313.48
Less: Borrower Rebates	16,461,345.47	16,461,345.47	16,461,345.47
Less: Management Fees	351,966.49	351,966.49	351,966.49
Total Securities Lending Income	821,001.52	821,001.52	821,001.52
Miscellaneous	2,998.69	2,998.69	2,998.69
<b>Total Additions:</b>	<b>281,200,262.12</b>	<b>271,219,814.22</b>	<b>234,131,843.68</b>
<b>Deductions:</b>			
<b>Benefits:</b>	63,014,998.20	63,014,998.20	63,014,998.20
<b>Refunds of contributions <sup>2</sup></b>	4,397,253.07	4,397,253.07	4,397,253.07
<b>Administrative Expenses</b>	1,498,347.19	1,498,347.19	1,498,347.19
<b>Total Deductions</b>	<b>68,910,598.46</b>	<b>68,910,598.46</b>	<b>68,910,598.46</b>
<b>Net Increase (Decrease)</b>	<b>\$ 212,289,663.66</b>	<b>\$ 202,309,215.76</b>	<b>\$ 165,221,245.22</b>
<b>Net assets:</b>			
Beginning of year	\$1,403,451,043.41	\$1,328,085,798.61	\$1,204,439,297.61
End of Year	\$1,615,740,707.07	\$1,530,395,014.37	\$1,369,660,542.83

<sup>1</sup> Employer Contributions include City contributions of \$18,911,820.00, Net Change in Reserve for Loss and Collection of Taxes of \$800,357.95, and Interest on Real Estate of \$9,124.01. Miscellaneous Income of \$2,998.69 is not included with Employer Contributions, but is listed separately.

<sup>2</sup> Refunds of contributions includes Refunds \$4,460,434.47 less the Net Change in Reserve for Payables and Receivables of \$63,181.40.

## GASB DISCLOSURE

## NET PENSION OBLIGATION

Year ending December 31:	1988	1989	1990	1991
<b>Assumptions and Method</b>				
Interest Rate	7.50%	7.50%	8.00%	8.00%
Amortization period (years)	40	40	40	40
Cost Method	EAN	EAN	EAN	EAN
<b>Annual Pension Cost</b>				
<b>Actuarially Determined Contr.</b>				
Normal Cost	\$ 20,008,465	\$ 19,803,585	\$ 17,819,965	\$ 20,777,427
40 year amortization	935,719	(151,802)	(3,030,467)	868,508
<b>Total ADC</b>	<b>20,944,184</b>	<b>19,651,783</b>	<b>14,789,498</b>	<b>21,645,935</b>
Interest on NPO	(628,987)	(1,146,199)	(1,796,270)	(2,998,697)
Adjustment to ADC	642,102	1,155,863	1,811,417	3,023,982
<b>Annual Pension Cost</b>	<b>20,957,299</b>	<b>19,661,448</b>	<b>14,804,644</b>	<b>21,671,220</b>
<b>Contributions for Year</b>				
Employer	15,157,663	15,257,738	17,029,493	15,989,678
Employee	11,740,621	12,529,606	12,805,486	13,691,711
<b>Total Contributions</b>	<b>26,898,284</b>	<b>27,787,344</b>	<b>29,834,979</b>	<b>29,681,389</b>
<b>Net Pension Obligation (NPO)</b>				
NPO at Beginning of Year	(8,386,497)	(14,327,482)	(22,453,378)	(37,483,714)
Annual Pension Cost	20,957,299	19,661,448	14,804,644	21,671,220
Total Contributions	26,898,284	27,787,344	29,834,979	29,681,389
<b>NPO at End of Year</b>	<b>\$ (14,327,482)</b>	<b>\$ (22,453,378)</b>	<b>\$ (37,483,714)</b>	<b>\$ (45,493,882)</b>

**Note:** GASB No. 27 states that employers should have all necessary information to calculate NPO beginning after the effective date of GASB No. 5, December 15, 1986. NPO calculations begin for first statement year following that effective date.

Year Ending	Employer's Expected Annual Pension Cost <sup>1</sup>	Percentage of Employer's APC Contributed	Net Pension Obligation (NPO)
1998	\$ 0	N/A	\$ (191,808,776)
1997	0	N/A	(168,753,600)
1996	0	N/A	(136,709,699)
1995	\$ 0	N/A	\$ (109,693,214)

<sup>1</sup> Employer's Expected Annual Pension Cost is the APC less Expected Employee Contributions

**GASB DISCLOSURE**  
**NET PENSION OBLIGATION**

1992	1993	1994	1995	1996	1997
8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
40	40	40	40	40	40
EAN	EAN	EAN	EAN	EAN	EAN
\$ 21,637,649	\$ 20,261,167	\$ 21,316,661	\$ 20,451,183	\$ 21,340,898	\$ 21,544,208
(925,113)	(5,449,447)	(7,246,462)	(7,571,950)	(13,950,958)	(19,019,140)
20,712,536	14,811,720	14,070,199	12,879,233	7,389,940	2,525,068
(3,639,511)	(4,348,031)	(5,806,534)	(7,176,840)	(8,775,457)	(10,936,776)
3,670,199	4,384,694	5,855,495	7,237,356	8,849,453	11,028,996
20,743,224	14,848,383	14,119,160	12,939,749	7,463,935	2,617,288
16,574,721	17,734,532	16,954,732	18,311,622	19,623,717	19,328,981
13,025,003	15,345,146	14,293,250	14,610,842	14,856,703	15,332,208
29,599,724	33,079,678	31,247,982	32,922,464	34,480,420	34,661,188
(45,493,882)	(54,350,382)	(72,581,677)	(89,710,499)	(109,693,214)	(136,709,699)
20,743,224	14,848,383	14,119,160	12,939,749	7,463,935	2,617,288
29,599,724	33,079,678	31,247,982	32,922,464	34,480,420	34,661,188
\$ (54,350,382)	\$ (72,581,677)	\$ (89,710,499)	\$ (109,693,214)	\$ (136,709,699)	\$ (168,753,600)

Net Pension Obligation (NPO)	1998
Annual Required Contribution (ARC)	\$ 0
Interest on Net Pension Obligation	(13,500,288)
Adjustment to Annual Required Contribution <sup>1</sup>	13,500,288
Annual Pension Cost (APC)	0
Contributions made	23,055,176
Increase (decrease) in Net Pension Obligation	(23,055,176)
Net Pension Obligation – beginning of year	(168,753,600)
Net Pension Obligation – end of year	\$ (191,808,776)

<sup>1</sup> In accordance with GASB No. 27, for an employer that has no net pension obligation (this included an NPO that is a negative balance) the annual pension cost (APC) is equal to the annual required contribution (ARC).

## GASB DISCLOSURE

## History of Retirees and Beneficiaries Added to and Removed from Benefit Payroll

Yr.	Added to Payroll		Removed from Payroll		Payroll, End of Year		Average Annual Benefits	Increase to Average Benefits
	No.	Ann. Benefits	No.	Ann. Benefits	No.	Ann. Benefits		
<b>Employee Annuitants (Male and Female)</b>								
1982	182	\$ 1,233,344	176	\$ 457,708	2,475	\$ 10,698,716	\$ 4,323	7.56%
1983	174	1,308,499	230	483,759	2,419	11,523,456	4,764	10.20%
1984	223	2,057,564	173	484,160	2,469	13,096,860	5,305	11.35%
1985	170	1,829,800	220	759,172	2,419	14,167,488	5,857	10.41%
1986	248	3,008,908	180	465,898	2,487	16,710,498	6,719	14.72%
1987	190	3,546,317	179	463,252	2,498	19,793,563	7,924	17.93%
1988	154	2,009,373	158	589,873	2,494	21,213,063	8,506	7.34%
1989	133	1,660,782	151	527,914	2,476	22,345,931	9,025	6.11%
1990	157	3,080,832	152	531,392	2,481	24,895,371	10,034	11.18%
1991	170	2,795,428	150	688,716	2,501	27,002,083	10,797	7.59%
1992	188	3,197,921	155	867,514	2,534	29,332,490	11,576	7.22%
1993	439	9,572,020	171	1,062,719	2,802	37,841,791	13,505	16.67%
1994	52	1,676,720	174	1,866,066	2,680	37,652,445	14,049	4.03%
1995	106	3,056,851	186	2,264,327	2,600	38,444,969	14,787	5.25%
1996	91	2,762,022	154	1,972,620	2,537	39,234,371	15,465	4.59%
1997	84	3,589,997	164	1,981,409	2,457	40,842,959	16,623	7.49%
1998	485	\$14,764,834	134	\$2,040,866	2,808	\$ 57,648,658	\$ 20,530	23.50%
<b>Widow/Widower Annuitants (Not Including Compensation)</b>								
1982	94	\$ 236,034	72	\$ 77,159	1,186	\$ 1,927,743	\$ 1,625	6.96%
1983	104	288,113	79	87,119	1,211	2,128,737	1,758	8.15%
1984	81	250,957	64	74,700	1,228	2,304,994	1,877	6.78%
1985	95	307,723	113	150,198	1,210	2,462,519	2,035	8.42%
1986	83	240,415	67	92,512	1,226	2,610,422	2,129	4.62%
1987	90	1,140,315	76	104,939	1,240	3,645,798	2,940	38.09%
1988	84	323,567	59	148,700	1,265	3,820,665	3,020	2.73%
1989	88	367,359	58	148,734	1,295	4,039,290	3,119	3.27%
1990	87	1,419,786	65	166,685	1,317	5,292,391	4,019	28.83%
1991	89	472,698	71	262,135	1,335	5,502,954	4,122	2.58%
1992	87	490,172	63	249,698	1,359	5,743,428	4,226	2.53%
1993	95	548,635	56	214,308	1,398	6,077,755	4,347	2.87%
1994	71	446,490	66	259,554	1,403	6,264,691	4,465	2.71%
1995	88	586,632	64	264,921	1,427	6,586,402	4,616	3.37%
1996	77	549,825	87	358,563	1,417	6,777,664	4,783	3.63%
1997	83	3,034,013	87	372,443	1,413	9,439,234	6,680	39.66%
1998	83	\$ 3,694,619	82	\$ 744,341	1,414	\$ 13,878,195	\$ 9,815	46.93%

Note: 1997 and 1998 "Added to Payroll" benefit amounts reflect increases in the minimum annuity to \$550/\$500 and \$850/\$800.

## SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

**Method:** The actuarial funding method used is the **entry age normal method** which reflects actuarial gains and losses immediately in the **unfunded liability**.

This cost method assigns to each year of employment a constant percentage of an employee's salary, called the **current service cost** (sometimes referred to as **normal cost**), sufficient to accumulate the necessary funds to provide for the full prospective costs of the employee's projected retirement pension. The amount of pension must be estimated using various assumptions as to future compensation levels, employee turnover, mortality, and pension fund earnings, since the actual pension can be known only at the time of retirement. These are called actuarial assumptions.

It should be emphasized that the actuarial assumptions do not directly affect the cost of the pension plan. Benefits are fixed by statute and will become payable as various members and their dependents satisfy the contingencies covered. The actual cost of the plan can only be determined after all benefits have been paid and is equal to the total benefits paid, plus total administrative expenses, minus total investment income.

The **actuarial accrued liability** of the Fund at any point in time is the accumulated value of all **current service costs** that should have been paid up at that time for active employees plus the full prospective cost of pensions for all retired employees. The extent that the actual plan **assets** are less than the **accrued liability** is called the **unfunded liability**. The unfunded liability may be positive (actuarial accrued liability greater than the actuarial value of the assets) or negative (actuarial accrued liability less than the value of assets, or funding excess). The term unfunded actuarial liability refers to either situation.

An amount of money is required each year to amortize the **unfunded liability** over a period of 40 years if all assumptions are realized. This amount is called **40 year level-dollar amortization** of the **unfunded liability**.

The required total **annual required contribution** to the Fund is equal to the **current service costs** plus a **40 year level dollar amortization** of the **unfunded liability**. The old funding policy of interest only has been strengthened. It was often referred to as the middle of the road method. It evolved over the years and seeks to satisfy the ideologies of all interested groups, including opinions often expressed by the Civic Federation. Under the new GASB No. 25 standard, a 40 year level dollar amount is provided for amortization of the **unfunded liability**.

Reserves for employees' retirement annuities, spouses' retirement annuities, and death benefit annuities and health insurance are valued on the entry age normal method. Grouped ages of entry, 22, 27, 32, 37, 42, 47, 52, 57, 62 and 67, are used.

The costs for the following items are valued on an actuarial cost basis. No reserves are set up, as these items tend to stabilize on a cash basis. The statutory accounting requires that these items be subtracted from the tax levy before other allocations are made.

## SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

1. Duty disability benefits
2. Ordinary disability benefits
3. Children's annuities
4. Refunds, including refunds for no spouse
5. Expense of administration (net of investment expense)

Reserves are set up for duty and ordinary disability recipients as if they were in active service.

### Actuarial Assumptions

Actuarial assumptions are selected by the actuary, but the statute calls for certain reserves to be computed with specified assumptions.

**Mortality:** Active members, present and future retired members and spouses: 1983 GAM mortality table set forward two years. This mortality assumption was adopted in 1997. A history of the mortality experience is shown in Exhibit Y.

**Interest:** 8% a year (net of investment expense), compounded annually. Exhibit Q details the investment yields the Fund actually realized over the past few years. This assumption, adopted in 1989, contains a 3% inflation assumption and a 5% real rate of return assumption. A history of the investment experience is also shown in Exhibit Q.

Interest earnings over the assumed rate can be used to reduce losses that may result from variations in other cost factors, such as increased costs resulting from salary increases greater than the assumed rate.

It must be realized that the interest assumption is a long-range assumption; it must cover a period as long as perhaps 50 years, which would be the period of time, for example, that the youngest employee in the Fund will work before retiring on pension for the rest of his or her life. There is no guarantee that current interest rates will continue over this period.

**Salary Increase:** 5% a year, compounded annually. Exhibit M details the annual increase in the average salary over the past years. The salary assumption, adopted in 1997, includes a 3% inflation assumption and 2% merit and longevity assumptions.

It should be remembered that pensions are based directly upon salary. It is believed that if the recent pattern continues in the long-range future, the salary scale assumption will need to be adjusted.

Increased costs will necessarily result, with the extent of the increase in cost depending on the extent of the increase in salary over the assumed time period.

## SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

**Rates of Retirement:** The rates of retirement used in this valuation are shown in Exhibit X, and are grouped by age of entrance into the service and are based on of this Fund for males and on experience of the Municipal Fund for females. These rates have been adjusted to reflect to anticipate more retirements due to the 10-year vesting.

### Average Ages at Retirement

Year	Average Age at Retirement
1980	65.4
1981	64.9
1982	64.6
1983	65.3
1984	65.9
1985	64.8
1986	64.9
1987	65.0
1988	65.0
1989	64.7
1990	64.6
1991	64.2
1992	65.2
1993	63.6
1994	63.3
1995	64.0
1996	61.4
1997	62.6
1998	60.6

### Expected Average Age at Retirement

Present Membership	59.19
New Hires	61.34

**Rates of Termination:** These rates are shown in Exhibit X, and are based on the experience of the Fund. They have been adjusted to reflect less anticipated withdrawal due to the 10-year vesting.

**SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS**

**Percent Married:** It is assumed that about 85% of the participants are married at the time a spouse's annuity becomes available.

**Active Membership:** It is assumed that the active membership will remain at the present level and that the average age of entrance into the service will be about the same in the future as it has been. The actuarial costs are based on the present group. If future entrants to the Fund are older than the present group, then costs will tend to increase. Conversely, if new entrants are younger, then costs will tend to decrease.

**Age of Spouse:** The spouse of a male employee is assumed four years younger; the spouse of a female employee is assumed four years older.

**Asset Value:** GASB No. 25 requires a market related actuarial asset value. A 5 year average smoothed market value was used. For Insurance Department purposes, the bonds are amortized value; stocks are at cost; real estate separate accounts are at adjusted cost. Market value is shown for information only.

**Reciprocal Benefits:** Active life normal costs and reserves are loaded 2%.

**Loss on Tax Levy:** 4% overall loss on tax levy is assumed.

**Group Health Insurance Premiums:** It is assumed for valuation purposes that the current health insurance supplement will continue for life for all employee annuitants (and their future widow/widowers). The amount of the Fund paid health insurance from January 1, 1993 until June 30, 2002 is \$75.00 per month for each annuitant (employees and widow/widowers) not qualified to receive Medicare benefits (and \$45.00 if qualified). It is assumed that all annuitants age 65 or over will be eligible for Medicare and all annuitants less than age 65 will not be eligible for Medicare. Future widow/widowers of retirees are assumed to be eligible for Medicare. All active employees upon their retirement and their widow/widowers upon employee's death are assumed to receive the health care supplement.

**Ultimate Required Multiple:** Is computed using the actuarial requirement less expected employee contributions (increased to adjust for the loss on the tax levy), divided by the expected employee contributions computed two years prior (using the actuarial salary scale). If the actual contributions had been used, the result would be somewhat different. The method used approximates a steady condition of uniformly increasing salaries.

**SERVICE TABLE FUNCTIONS**  
Rates of Retirement

Entry Ages - Male										
Age	22	27	32	37	42	47	52	57	62	67
30										
31										
32	0.002									
33	0.002									
34	0.002									
35	0.002									
36	0.002									
37	0.002	0.002								
38	0.002	0.002								
39	0.002	0.002								
40	0.001	0.002								
41	0.001	0.002								
42	0.001	0.002	0.002							
43	0.001	0.002	0.002							
44	0.001	0.002	0.002							
45	0.001	0.001	0.002							
46	0.001	0.001	0.001							
47	0.001	0.001	0.001	0.002						
48	0.001	0.001	0.001	0.002						
49	0.001	0.001	0.001	0.002						
50	0.001	0.001	0.001	0.002						
51	0.001	0.001	0.001	0.002						
52	0.200	0.001	0.001	0.001	0.002					
53	0.100	0.001	0.001	0.001	0.002					
54	0.100	0.001	0.001	0.001	0.002					
55	0.300	0.300	0.010	0.001	0.001					
56	0.300	0.200	0.010	0.001	0.001					
57	0.300	0.200	0.200	0.070	0.010	0.001				
58	0.300	0.200	0.090	0.020	0.010	0.001				
59	0.350	0.200	0.090	0.040	0.010	0.001				
60	0.500	0.200	0.090	0.100	0.040	0.020	0.020	0.020		
61	0.500	0.220	0.090	0.120	0.040	0.020	0.020	0.050		
62	0.500	0.250	0.150	0.330	0.070	0.030	0.030	0.100		
63	0.750	0.300	0.240	0.400	0.090	0.050	0.030	0.100	0.020	
64	0.750	0.350	0.280	0.450	0.110	0.060	0.050	0.150	0.050	
65	1.000	0.500	0.400	0.650	0.080	0.080	0.300	0.200	0.100	
66		0.750	0.450	0.650	0.420	0.130	0.150	0.200	0.150	
67		1.000	0.500	0.700	0.460	0.220	0.200	0.500	0.200	
68			0.750	0.750	0.500	0.500	0.500	0.500	0.500	
69			0.750	0.750	0.750	0.750	0.750	0.750	0.750	
70			1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

**SERVICE TABLE FUNCTIONS**

**Rates of Retirement**

Entry Ages - Female										
Age	22	27	32	37	42	47	52	57	62	67
30										
31										
32	0.002									
33	0.002									
34	0.002									
35	0.002									
36	0.002									
37	0.002	0.002								
38	0.002	0.002								
39	0.001	0.002								
40	0.001	0.002								
41	0.001	0.002								
42	0.001	0.002	0.002							
43	0.001	0.002	0.002							
44	0.001	0.001	0.002							
45	0.001	0.001	0.002							
46	0.001	0.001	0.001							
47	0.001	0.001	0.001	0.002						
48	0.001	0.001	0.001	0.002						
49	0.001	0.001	0.001	0.002						
50	0.001	0.001	0.001	0.002						
51	0.001	0.001	0.001	0.002						
52	0.200	0.001	0.001	0.002	0.002					
53	0.100	0.001	0.001	0.002	0.002					
54	0.100	0.001	0.001	0.001	0.002					
55	0.250	0.300	0.040	0.001	0.001					
56	0.250	0.200	0.040	0.001	0.001					
57	0.350	0.200	0.200	0.010	0.010	0.010				
58	0.100	0.200	0.120	0.020	0.010	0.010				
59	0.250	0.200	0.120	0.030	0.010	0.010				
60	0.400	0.280	0.120	0.100	0.020	0.020	0.020	0.020		
61	0.500	0.300	0.150	0.130	0.040	0.020	0.030	0.030		
62	0.500	0.330	0.300	0.140	0.080	0.030	0.030	0.030		
63	0.750	0.500	0.330	0.150	0.090	0.030	0.040	0.030	0.020	
64	0.750	0.500	0.220	0.150	0.100	0.030	0.050	0.040	0.040	
65	1.000	0.750	0.240	0.420	0.250	0.130	0.050	0.060	0.150	
66		0.750	0.270	0.200	0.270	0.150	0.060	0.080	0.180	
67		1.000	0.300	0.300	0.330	0.250	0.070	0.120	0.220	
68			0.500	0.500	0.500	0.500	0.500	0.500	0.500	
69			0.750	0.750	0.750	0.750	0.750	0.750	0.750	
70			1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

**SERVICE TABLE FUNCTIONS**  
Rates of Termination

Entry Ages - Male										
Age	22	27	32	37	42	47	52	57	62	67
22	0.22									
23	0.19									
24	0.17									
25	0.15									
26	0.13									
27	0.12	0.26								
28	0.10	0.19								
29	0.09	0.16								
30	0.07	0.14								
31	0.06	0.12								
32	0.05	0.10	0.22							
33	0.04	0.09	0.19							
34	0.03	0.07	0.16							
35	0.03	0.06	0.14							
36	0.02	0.05	0.11							
37	0.02	0.04	0.10	0.22						
38	0.02	0.04	0.08	0.18						
39	0.02	0.03	0.06	0.16						
40	0.01	0.03	0.05	0.14						
41	0.01	0.03	0.04	0.11						
42	0.01	0.02	0.02	0.09	0.18					
43	0.01	0.02	0.02	0.07	0.16					
44	0.01	0.02	0.01	0.06	0.14					
45	0.01	0.02	0.01	0.05	0.12					
46	0.01	0.01	0.01	0.04	0.10					
47	0.01	0.01	0.01	0.03	0.08	0.14				
48	0.00	0.01	0.01	0.03	0.07	0.13				
49	0.00	0.01	0.01	0.02	0.05	0.11				
50	0.00	0.01	0.01	0.02	0.04	0.10				
51	0.00	0.01	0.01	0.02	0.04	0.09				
52		0.01	0.00	0.02	0.03	0.08	0.12			
53		0.00	0.00	0.01	0.02	0.06	0.10			
54		0.00	0.00	0.01	0.02	0.05	0.09			
55						0.04	0.07			
56						0.03	0.06			
57							0.05	0.11		
58							0.04	0.09		
59							0.03	0.08		
60										

**SERVICE TABLE FUNCTIONS**  
Rates of Termination

Entry Ages – Female										
Age	22	27	32	37	42	47	52	57	62	67
22	0.14									
23	0.13									
24	0.13									
25	0.12									
26	0.11									
27	0.11	0.17								
28	0.10	0.15								
29	0.09	0.13								
30	0.07	0.12								
31	0.06	0.10								
32	0.05	0.09	0.11							
33	0.04	0.07	0.10							
34	0.04	0.06	0.09							
35	0.03	0.05	0.08							
36	0.03	0.05	0.07							
37	0.02	0.04	0.06	0.07						
38	0.02	0.03	0.05	0.07						
39	0.01	0.03	0.05	0.06						
40	0.01	0.03	0.04	0.06						
41	0.01	0.02	0.04	0.06						
42	0.01	0.02	0.03	0.05	0.05					
43	0.01	0.02	0.03	0.05	0.05					
44	0.00	0.02	0.02	0.04	0.05					
45	0.00	0.02	0.02	0.04	0.04					
46	0.00	0.01	0.02	0.03	0.04					
47		0.01	0.02	0.03	0.03	0.06				
48		0.10	0.02	0.02	0.03	0.06				
49		0.01	0.01	0.02	0.03	0.05				
50		0.01	0.01	0.02	0.03	0.04				
51		0.01	0.01	0.02	0.02	0.04				
52		0.00	0.01	0.01	0.02	0.03	0.05			
53		0.00	0.01	0.01	0.02	0.03	0.05			
54		0.00	0.01	0.01	0.01	0.03	0.05			
55						0.03	0.04			
56						0.02	0.04			
57							0.04	0.06		
58							0.03	0.05		
59							0.03	0.05		
60										

## ACTUARIAL EXPERIENCE

The actuarial assumptions for retirement, withdrawal, and pre-retirement mortality determine when and if a benefit is expected to be paid. The post-retirement mortality determines how long the benefit is expected to be paid. Once the actives enter service, there is a probability that they will not be in the work force at the end of each year because of withdrawal, retirement, or death, at which time they may be eligible for a benefit to be paid. The withdrawal and retirement rates for the Laborers' Fund have been based on past experience of this fund with adjustments for expected changes in the future. The pre-retirement and post-retirement mortality are based on a published table, the 1983 GAM set forward two years (adopted in 1997), and not on the experience of this fund. The actual experience of the Fund is compared to the expected experience of the Fund each year and changes in the rates or tables are made when the future expectations differ from the expectations using the current rates.

Actuarial Experience: Actual to Expected					
Year	Active Mortality	Retired Mortality	Widow/er Mortality	Retirement	Withdrawal
1981	1.47	1.25	2.06	1.38	2.11
1982 <sup>1</sup>	1.00	1.41	1.72	0.95	1.08
1983 <sup>2</sup>	0.98	1.49	1.66	0.99	1.02
1984	0.69	1.45	1.63	1.27	1.23
1985	1.52	1.65	2.70	0.98	1.32
1986	0.88	1.52	1.70	1.44	1.43
1987	1.90	1.45	1.87	1.11	0.63
1988 <sup>1</sup>	1.34	1.26	1.37	0.75	0.68
1989	1.31	1.21	1.29	0.64	0.67
1990	1.47	1.23	1.48	0.73	0.49
1991 <sup>1</sup>	0.92	1.31	1.52	0.87	0.64
1992	1.27	1.19	1.23	1.17	0.79
1993 <sup>3</sup>	1.22	1.27	1.06	2.61	0.70
1994	1.36	1.23	1.13	0.51	0.44
1995	1.31	1.33	1.06	1.08	0.68
1996	1.06	1.10	1.41	0.87	0.77
1997 <sup>2,4</sup>	1.24	1.17	1.33	0.75	0.82
1998 <sup>1,3,4</sup>	1.91	1.01	1.36	3.45	0.63

<sup>1</sup> New retirement rates. <sup>2</sup> New mortality rates. <sup>3</sup> Early Retirement Incentive. <sup>4</sup> New withdrawal rates.

Attained Age	Male Death Rate GAM 1983/1000	Female Death Rate GAM 1983 / 1000	Proportion Married
22	.444	.239	81%
27	.572	.320	81%
32	.785	.443	81%
37	1.128	.617	80%
42	1.932	.919	83%
47	3.513	1.505	83%
52	5.660	2.315	84%
57	8.384	3.821	82%
62	13.868	6.386	80%
67	24.817	10.922	78%
70	33.337	16.160	74%

**ACTUARIAL EXPERIENCE**  
**Attained Age at Retirement - Employee Annuitants**

Male annuitants age 50 through 70<sup>1</sup>

Age	Age at Entrance										Total
	22	27	32	37	42	47	52	57	62	67	
50	9		1								10
51	15	1									16
52	8										8
53	15										15
54	19										19
55	37	6	1								44
56	34	2									36
57	23	6	1								30
58	24	3	1			1					29
59	30	10		1							41
60	16	3	4		1						24
61	18	1	8								27
62	11	5	8	2	1	1					28
63	4	11	4	2							21
64	1	8	5	2			1				17
65	1	2	4	6	1		2				16
66	1	3	3	5			1				13
67		3	3	3	1	1		1			12
68	1	2	4	2	2	1					12
69	4		2	3	1	1					11
70	1	1	4	1	3						10
<b>Total</b>	<b>272</b>	<b>67</b>	<b>53</b>	<b>27</b>	<b>10</b>	<b>5</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>439</b>

Female annuitants age 50 through 70<sup>1</sup>

Age	Age at Entrance										Total
	22	27	32	37	42	47	52	57	62	67	
50											0
51											0
52											0
53											0
54											0
55		1									1
56											0
57											0
58			2								2
59											0
60											0
61	1		1								2
62	1										1
63											0
64											0
65		2	1								3
66		1		1							2
67				1							1
68		1	1								2
69											0
70											0
<b>Total</b>	<b>2</b>	<b>5</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>

<sup>1</sup> Does not include deferred annuitants retiring before 50 (if any) and retirements after age 70.

## IMPACT STATEMENT

<b>Laborers'</b>			
Annual Payroll	\$ 170,627,112.00		
Active Members	3,753		
Valuation Date	December 31, 1998		
<b>Present Plan</b>			
(1) Accrued Pension Liability	\$ 1,292,611,711.79		
(2) Present GASB Assets	1,530,395,014.37		
(3) Unfunded Liability (Surplus) = (1)-(2)	\$ (237,783,302.58)		
(4) Funded Ratio = (2)/(1)	118.40%		
<b>Direction of Financial Condition</b>		<b>Per Active</b>	<b>Percent of Salary</b>
(5) Minimum Recommended Actuarially Determined Contribution	\$ 4,872,097.73	\$1,298.19	2.86%
(6) Estimated Annual Employer Contribution	14,089,822.08	3,754.28	8.26%
(7) Estimated Annual Employee Contribution	15,356,440.08	4,091.78	9.00%
(8) Deficiency (Excess) in Annual Contributions ( equal to (5), less (6) and (7) )	\$ (24,574,164.43)	\$(6,547.87)	(14.40)%



## PLAN SUMMARY

### Participant

Person employed by the City in a position classified as labor service of the employer, any person employed by the Board, any person employed by the Retirement Board of any other Annuity and Benefit Fund which is in operation for the employer.

### Service

For all purposes except minimum annuity and ordinary disability credit, service in four months in any calendar year constitutes one year of service credit.

For minimum annuity, one half-year credit is given for one complete month of service and a full year credit is given for one complete month of service plus service in at least 5 other months. For Ordinary Disability credit, the exact number of days, months and years is used.

### Retirement Annuity

**Money Purchase Formula:** Maximum is 60% of highest salary. Applies in cases where an employee is age 55 or more and has a minimum of 10 years of service. If employee is age 55 to 60 with service less than 20 years, the annuity is based on all employee deductions plus 1/10 of the City contributions for each year over 10. In the case of withdrawal before age 55 and application after age 55, the annuity is based on employee deductions plus 1/10 of the City contributions for each year over 10, with interest to date of application or age 55, whichever is later. The age factor for age 55 is used.

The annuity is based on all employee deductions and City contributions in cases where the employee is: (a) age 55 to 60 with 20 or more years of service; (b) age 60 or over; or (c) resigning at the time of disability credit expiration.

**Minimum Annuity Formula:** Maximum is 75% of final average salary.

- a. An employee age 60 or older with at least 10 years of service withdrawing on or after January 1, 1999, or an employee age 55 or older withdrawing on or after July 1, 1990, with at least 20 years of service, or an employee age 50 or older withdrawing on or after June 27, 1997 with at least 30 years of service, is qualified for an annuity equal to 2.2%, for each year of service, of the final average salary during the four highest consecutive years within the last 10 years of service prior to retirement. This annuity is discounted 0.25% for each month the employee is younger than 60 unless he has at least 25 years of service, 30 years of service if employee withdrew before June 27, 1997. Employee could also choose the old factors (1.8%, 2.0%, 2.2%, 2.4%) for each 10 years of service credit if it is to his benefit.
- b. An employee who is at least age 65 with 15 or more years of service is qualified for an annuity equal to 1% for each year of service multiplied by the final average salary added to the sum of \$25 for each year of service.
- c. The employee will receive a minimum annuity of \$850 per month if the employee retires at age 60 or more with at least 10 years of service on or after January 1, 1999.

## PLAN SUMMARY

**Reversionary Annuity:** An employee may elect to reduce his or her annuity by an amount less than or equal to \$400 to provide a reversionary annuity for a spouse, parent, child, brother, or sister, to begin upon the employee's death. The election must be made before retirement and have been in effect 2 years prior to death. The death of the employee before retirement voids this election. The reversionary annuity cannot exceed 100% of the employee's reduced annuity. If the employee resigns after June 30, 1983, the 3% automatic annual increase in annuity will be computed on the original, not the reduced annuity; if the beneficiary dies before the employee annuitant, the full annuity is restored for annuities granted after June 30, 1983. The amount of the monthly reversionary annuity is determined by multiplying the amount of the monthly reduction in the employee's annuity by a factor based on the age of the employee and the difference between the ages of the employee and the reversionary annuitant at the starting date of the employee's annuity.

**Reciprocal Annuity:** Under reciprocal retirement an employee can receive an annuity based on combined service credits in two or more governmental units in Illinois to whose pension funds he or she has contributed.

**Automatic Increase in Annuity:** An employee who is age 60 or more is entitled to receive 3% of the original annuity, such increase to begin in January of the year immediately following the year of the first anniversary of retirement. An employee who retires prior to age 60 will receive such increase beginning in January of the year following the year he attained age 60. Effective for retirements on or after January 1, 1987, the first increase shall begin upon the first annuity payment date following the first anniversary of retirement, or age 60 if later. Beginning January 1, 1999, increases are calculated as 3% of the monthly annuity payable at the time of increase. Increases apply only to life annuities.

### **Spouse Annuity (payable until remarriage)**

**Money Purchase Formula:** When an employee retires, the spouse's annuity is fixed, based on employee deductions and City contributions made for spouses' annuity purposes and a joint life age factor. (If the employee is a female, these are deductions accumulated since October 1974.)

If the employee dies in service, the spouse's annuity is based on all sums accumulated to their credit.

For 3% annuities fixed on or after August 1, 1983, the "Combined Annuity Mortality Table" shall continue to be used; however, widows'/widowers' single life annuities and reversionary annuities shall be computed using the best factor (the factor producing the highest annuity), not depending upon sex.

**Spouses' Minimum Annuity Formula:** If the employee retires or dies in service before July 1, 1990 and is at least age 60 with 20 or more years of service, the spouse's annuity is equal to half the amount of annuity the employee was entitled to at the time of death, if death occurred before retirement, or was entitled to receive on the date of retirement, if the employee died after retirement. The spouse's annuity must then be discounted .25% for each month that the spouse is under age 60 at the time the annuity is fixed.

If the employee retires or dies in service after July 1, 1990 and is at least age 55 with 20 or more years of service, or if the employee retires or dies in service on or after June 27, 1997 and is at least age 50 with 30 or more years of service, the spouse's annuity is equal to half the amount of annuity the employee was entitled to at time of retirement or death in service. This annuity must then be discounted .25% for each month the spouse is under age 55 at the time the employee retires or dies in service.

## PLAN SUMMARY

If the employee dies on or after June 27, 1997 while receiving a retirement annuity, the spouse may choose an annuity of one half of the employee's annuity at death, discounted for his/her age under 55 at the time of the employee's death, unless the employee was at least age 50 with 30 or more years of service or at least age 55 with 25 or more years of service and died on or after January 1, 1998 and withdrew from service on or after June 27, 1997, in which case the spouse annuity would be discounted for spouse age under 50 at the time of the employee's death.

In the case of the spouse of a female employee, the employee must have made contributions for her spouse for at least 20 years to qualify for the minimum annuity formula. Current female employees may elect to pay spouse contributions for their full service before October 1974.

The spouse will receive a minimum annuity of \$800 per month if employee retires with at least 10 years of service or dies in service with at least 5 years on or after January 1, 1999.

### Children's Annuity

Child's annuity is payable upon the death of the employee, either active or retired, if the child is unmarried, under age 18, born or *in esse* before his separation from service or legally adopted at least one year before child's annuity becomes payable. Annuity is \$220 per month while spouse of deceased employee is alive and \$250 per month if no spouse is alive. Except for duty death the deceased employee must have had 4 years of service or at least 2 years from latest re-entrance if he had previously resigned from service.

### Family Maximum

**Non-Duty Death:** 60% of final monthly salary.

**Duty death:** 70% of final monthly salary.

### Disabilities

**Duty Disability Benefits:** Any employee who becomes disabled as the result of injury incurred in the performance of any act of duty, shall have a right to receive duty disability benefit in the amount of 75% of salary at date of injury plus \$10 a month for each unmarried child (the issue of the employee) less than age 18. Child's duty disability benefit is limited to 15% of the employee's salary as of date of injury. Duty disability benefits begin one day after the later of the last day worked and the last day paid.

If the disability has resulted from any mental disorder, physical defect or disease which existed at the time such injury was sustained, the duty disability benefit shall be 50% of salary at date of injury. Disablement because of heart attacks, strokes, or any disablement due to heart disease shall not be considered to be the result of an accident suffered in the performance of duty. However, the employee will receive service credit and the City will contribute salary deductions for annuity purposes if the employee is receiving Workers' Compensation.

## PLAN SUMMARY

Duty disability benefit is payable to age 65 if disability begins before age 60. For an employee who begins disability on or after age 60, disability will continue for 5 years or to age 70, whichever occurs first. The age 70 limitation was removed beginning January 1, 1987. As of January 1, 1991, a duty disability benefit which continues for more than 5 years and which starts before the employee's age 60, will be increased by 10% on January 1st of the sixth year.

The City contributes salary deductions for annuity purposes for the duty disability benefit. Such amounts contributed by the City after December 31, 1983, while the employee is receiving duty disability benefits, are not refundable to the employee and will be used for annuity purposes only.

**Ordinary Disability Benefit:** This benefit is granted for disability other than in performance of an act of duty and is 50% of salary as of last day worked less the sum ordinarily deducted from salary for annuity purposes. The first payment shall be made one month after the disablement occurs. Disability is payable until age 65 and limited to a maximum of 25% of employee's total service or 5 years, whichever occurs first if disability begins before age 60. For an employee who begins disability on or after age 60, disability will continue for a period not greater than 25% of employee's total service, but no more than 5 years or age 70, whichever occurs first. The age 70 limitation was removed beginning January 1, 1987.

### Group Health Hospital and Surgical Insurance Premiums

The pension fund may provide up to a maximum of \$75 per month for non-Medicare eligible annuitants (employees or widows, without regard to age or years of service) and up to \$45 per month for Medicare eligible annuitants until June 30, 2002.

### Refunds

**To Employee:** Upon separation from service, employee is entitled to all salary deductions plus interest if employee is under age 55. If over age 55 employee is eligible for refund if he has less than 10 years of service or would be eligible for temporary rather than life annuity. Effective January 14, 1991, employee may choose a refund in lieu of annuity if the calculated annuity would be less than \$300 per month.

Spouse's annuity deductions are payable to employee if not married when he retires.

**To Spouse:** In lieu of annuity if annuity would be temporary rather than life and spouse so chooses. Effective January 14, 1991, spouse may choose a refund in lieu of annuity if the calculated annuity would be less than \$300 per month.

**Remaining Amounts:** Amounts contributed by employee excluding 0.5% deductions for annuity increase, which have not yet been paid out as annuity, are refundable to his estate with interest to his retirement or death if he died in service.

## PLAN SUMMARY

### Deductions and Contributions

	Deductions	Contributions <sup>1</sup>
Employee	6.5%	6.0%
Spouse	1.5	2.0
Annuity Increase	<u>0.5</u>	<u>0.0</u>
 Total	 8.5%	 8.0%

### <sup>1</sup> Financing

The City shall levy a tax annually equal to the total amount of contributions in the 2 years prior, multiplied by 1.00 for 1999 and each year thereafter.

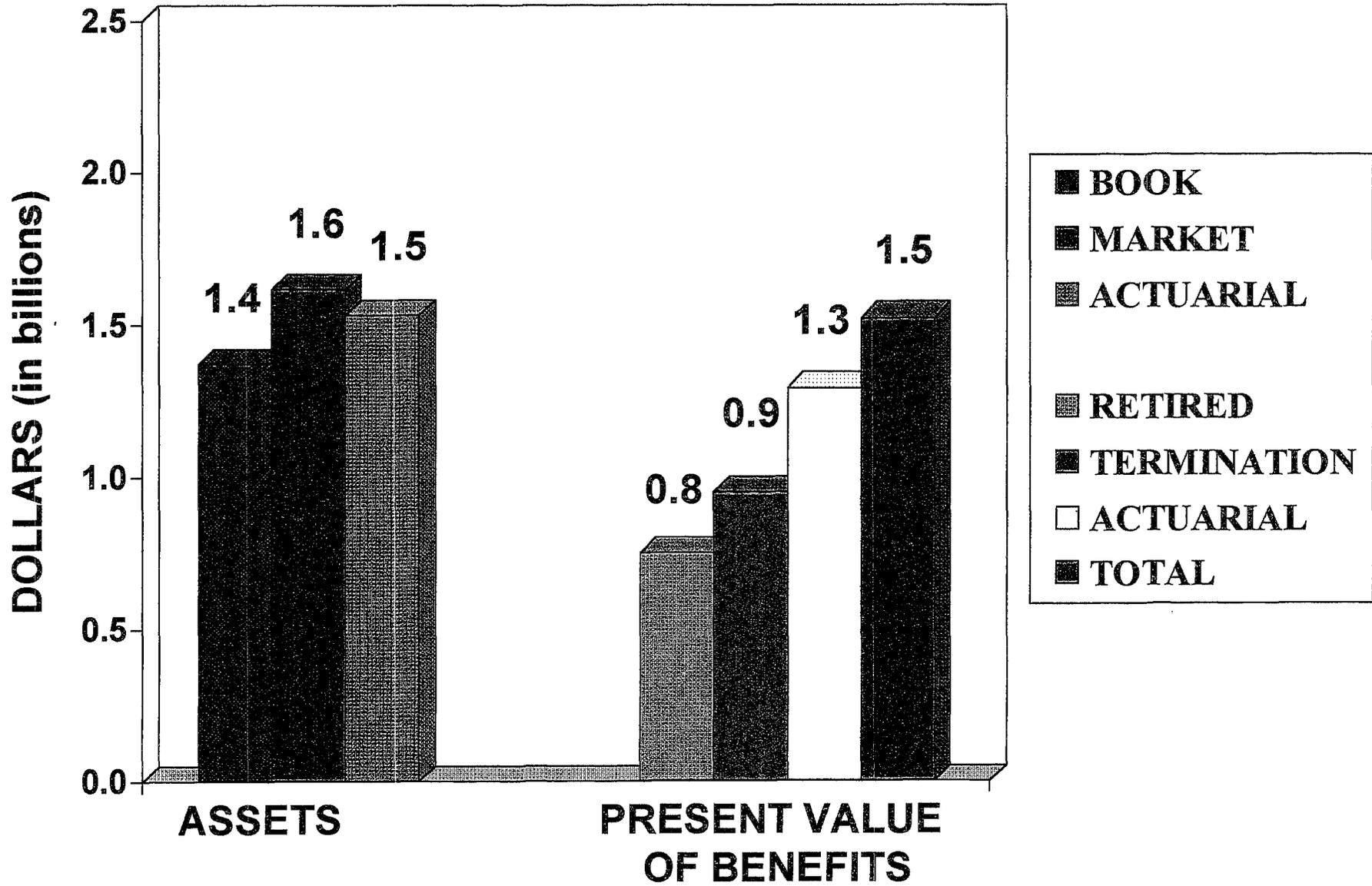
### Tax Shelter of Employee Salary Deductions

Beginning January 1, 1982, the City employee salary deductions were designated for income tax purposes to be made by the employer. The W-2 salary is therefore reduced by the amount of contribution. For pension purposes the salary remains unchanged. Income tax will be paid when a refund or annuity is granted. For the purposes of benefits, refunds, or financing, these contributions are treated as employee contributions. Beginning September 1, 1981, Board of Education employee contributions were paid by the employer. The 1985 amendments contained a provision whereby the amount of pick-up, if any, is included in the pensionable salary for contributions and benefits. Such provision was retroactive to September 1, 1981.

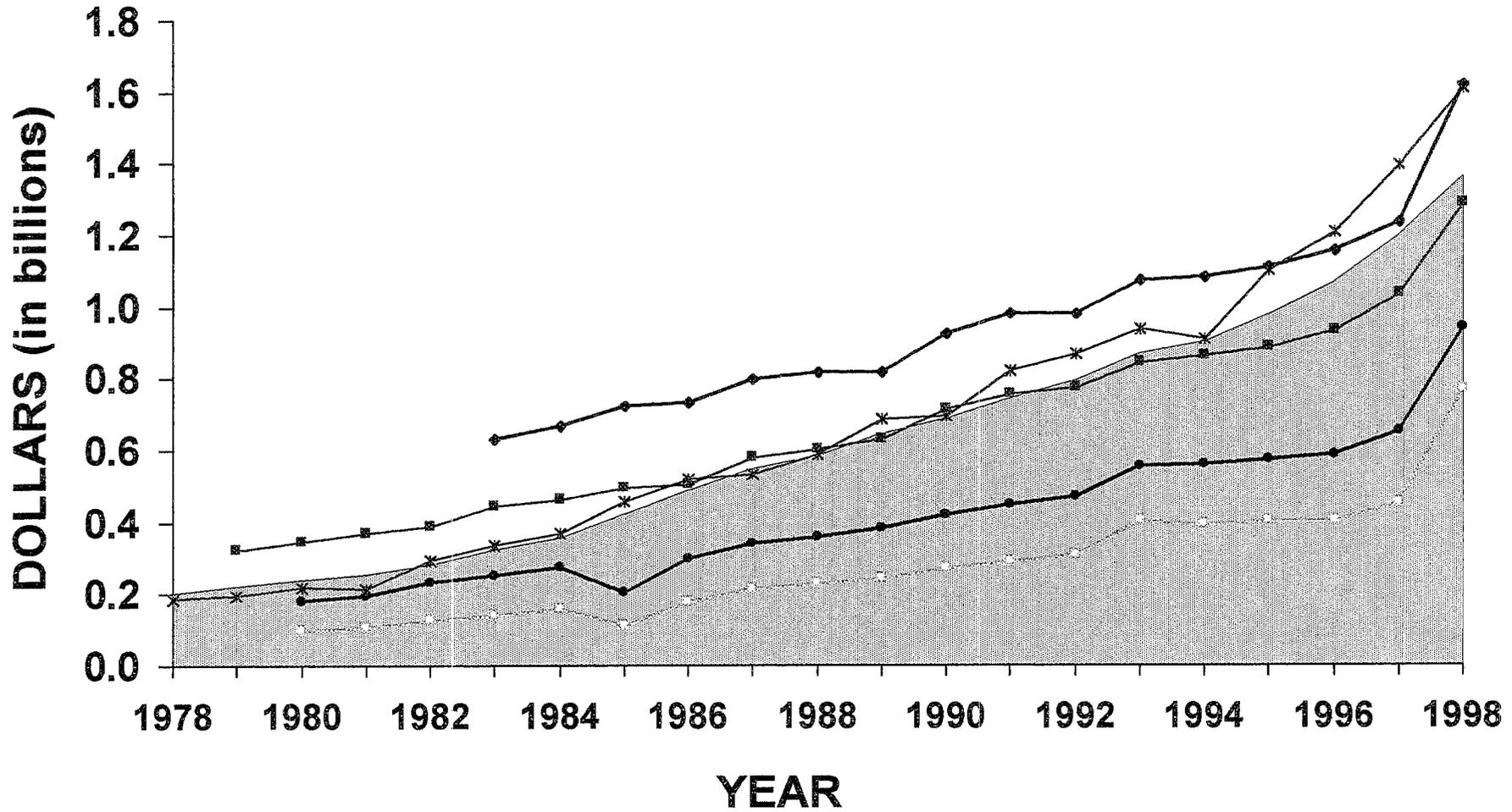
## PLAN SUMMARY

Year	Actuarial Accrued Liability	Book Value of Total Assets (A)	Market Value of Total Assets (B)	Actuarial Value of Total Assets (C)
1986	\$ 507,984,848	\$ 489,403,006	\$ 522,350,400	\$ 517,040,712
1987	583,284,026	546,947,052	536,199,932	571,065,219
1988	604,440,661	584,899,234	591,106,324	606,321,849
1989	633,894,540	646,313,443	687,485,749	671,449,305
1990	716,604,604	687,103,206	698,132,633	705,841,707
1991	761,056,602	746,260,920	824,479,374	772,520,978
1992	777,385,162	797,641,186	873,771,679	844,916,889
1993	847,293,445	871,897,213	943,693,240	937,094,502
1994	866,493,209	905,389,874	915,569,940	960,327,842
1995	890,375,387	979,038,393	1,104,400,942	1,063,261,239
1996	936,623,719	1,074,699,269	1,211,768,131	1,172,316,925
1997	1,040,650,534	1,204,439,298	1,403,451,043	1,328,085,799
1998	\$ 1,292,611,712	\$ 1,369,660,543	\$ 1,615,740,707	\$ 1,530,395,014
Year	Unfunded (Surplus) Actuarial Accrued Liability (UAAL)			
	(Based on (A))	(Based on (B))	(Based on (C))	
1986	\$ 18,581,842	\$ (14,365,552)	\$ (9,055,864)	
1987	36,336,974	47,084,094	12,218,807	
1988	19,541,427	13,334,337	(1,881,188)	
1989	(12,418,903)	(53,591,209)	(37,554,765)	
1990	29,501,398	18,471,971	10,762,897	
1991	14,795,682	(63,422,772)	(11,464,376)	
1992	(20,256,024)	(96,386,517)	(67,531,727)	
1993	(24,603,768)	(96,399,795)	(89,801,057)	
1994	(38,896,665)	(49,076,731)	(93,834,633)	
1995	(88,663,006)	(214,025,555)	(172,885,852)	
1996	(138,075,550)	(275,144,412)	(235,693,206)	
1997	(163,788,764)	(362,800,509)	(287,435,264)	
1998	\$ (77,048,831)	\$ (323,128,995)	\$ (237,783,303)	
Year	Percentage Funded			
	(A)/AAL	(B)/AAL	(C)/AAL	
1986	96.34%	102.83%	101.78%	
1987	93.77%	91.93%	97.91%	
1988	96.77%	97.79%	100.31%	
1989	101.96%	108.45%	105.92%	
1990	95.88%	97.42%	98.50%	
1991	98.06%	108.33%	101.51%	
1992	102.61%	112.40%	108.69%	
1993	102.90%	111.38%	110.60%	
1994	104.49%	105.66%	110.83%	
1995	109.96%	124.04%	119.42%	
1996	114.74%	129.38%	125.16%	
1997	115.74%	134.86%	127.62%	
1998	105.96%	125.00%	118.40%	

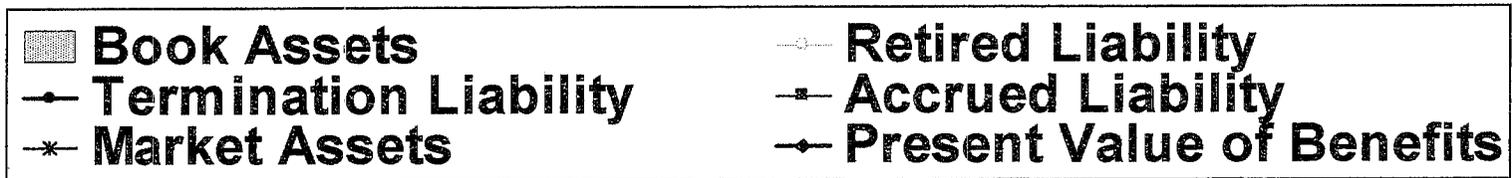
# LABORERS'



# ASSETS AND LIABILITIES

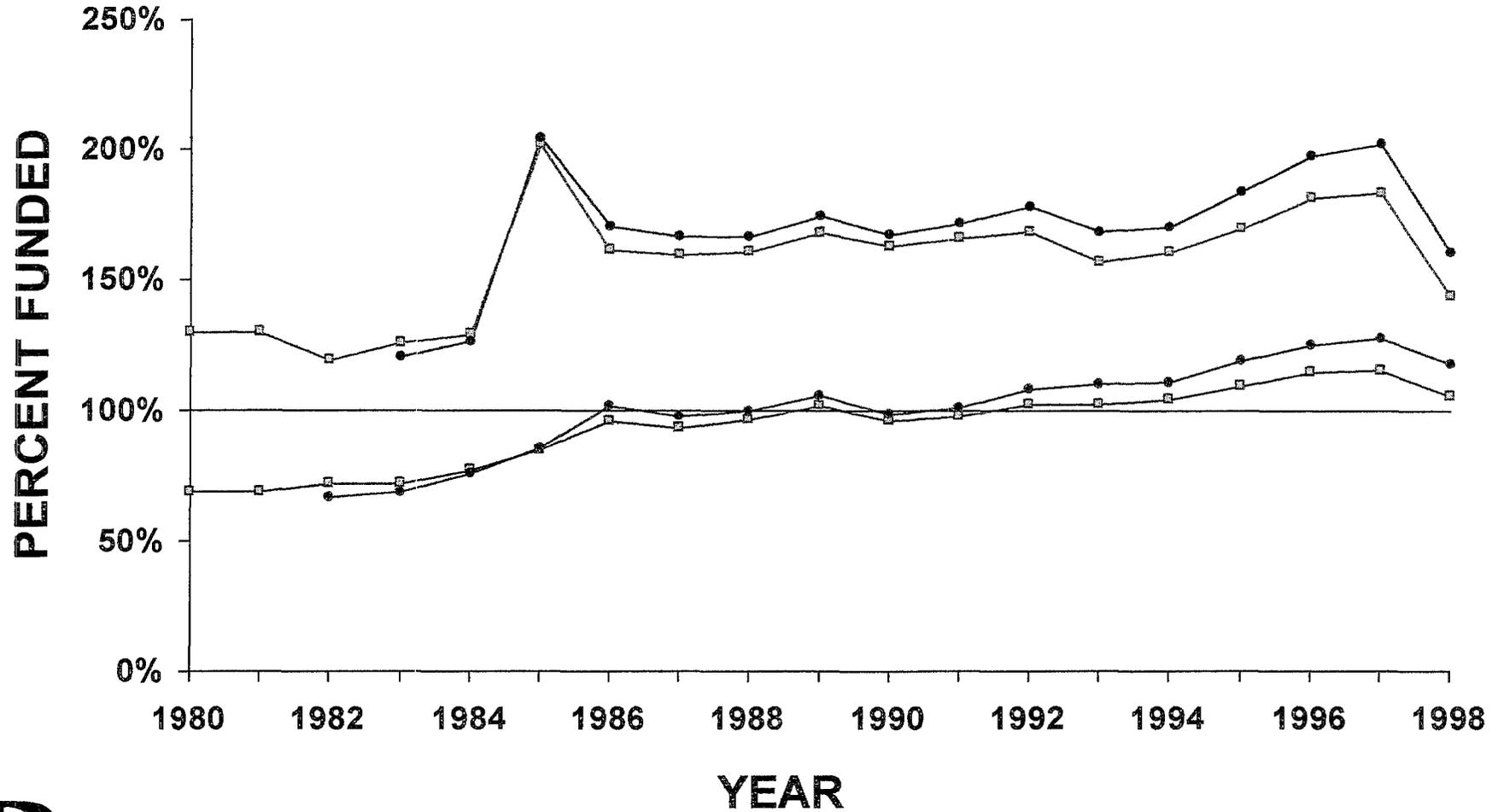


**A**

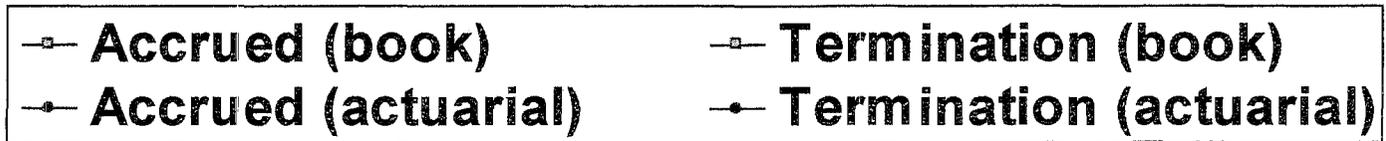


# FUNDED RATIOS

(Book Values vs Actuarial Values)

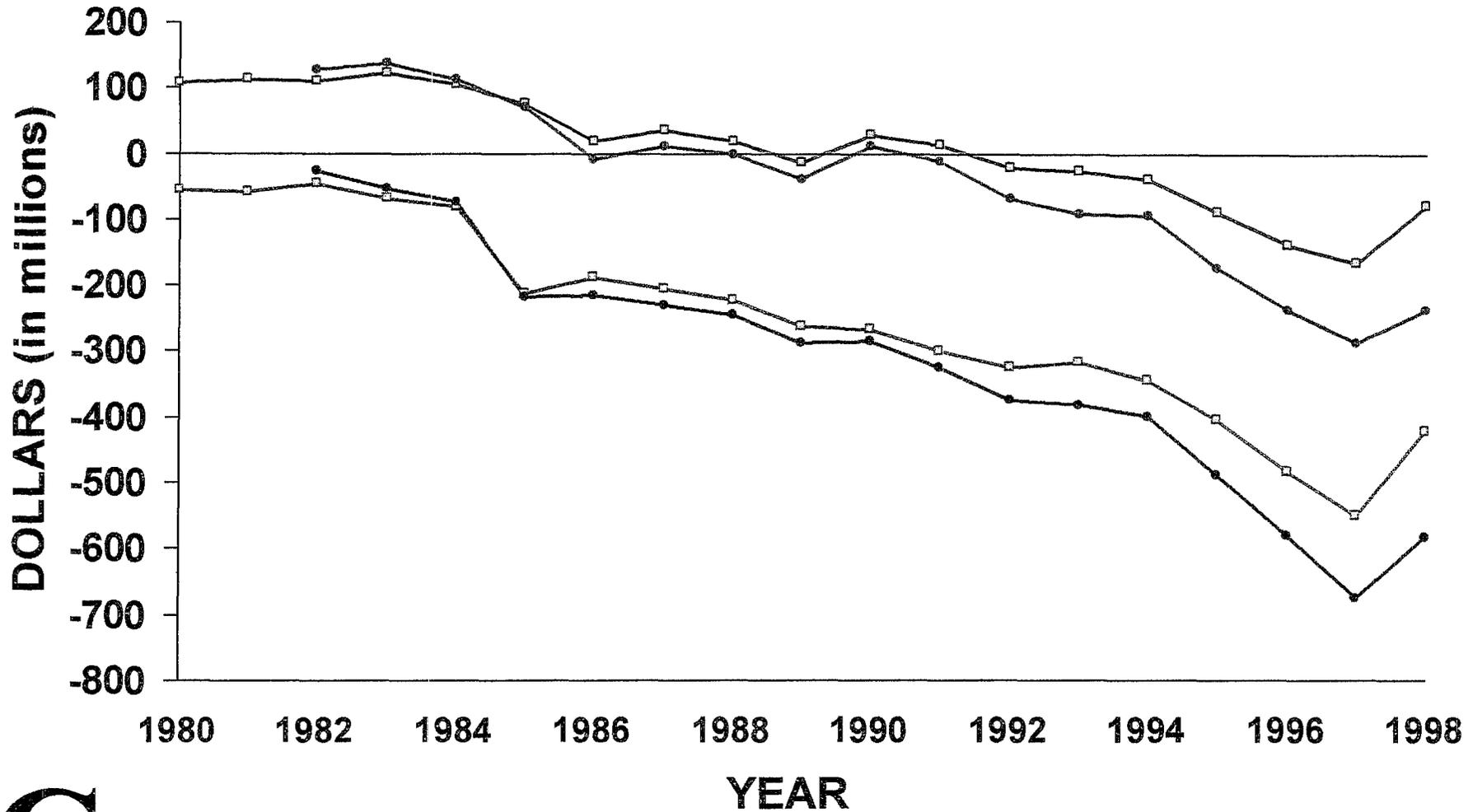


**B**

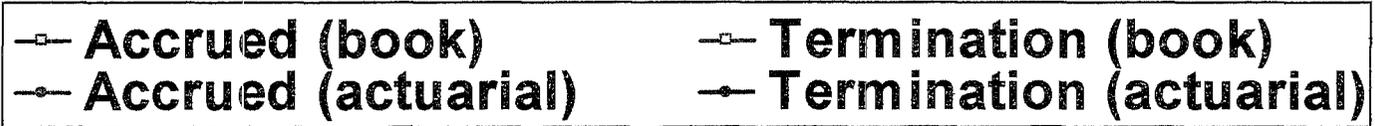


# UNFUNDED LIABILITY

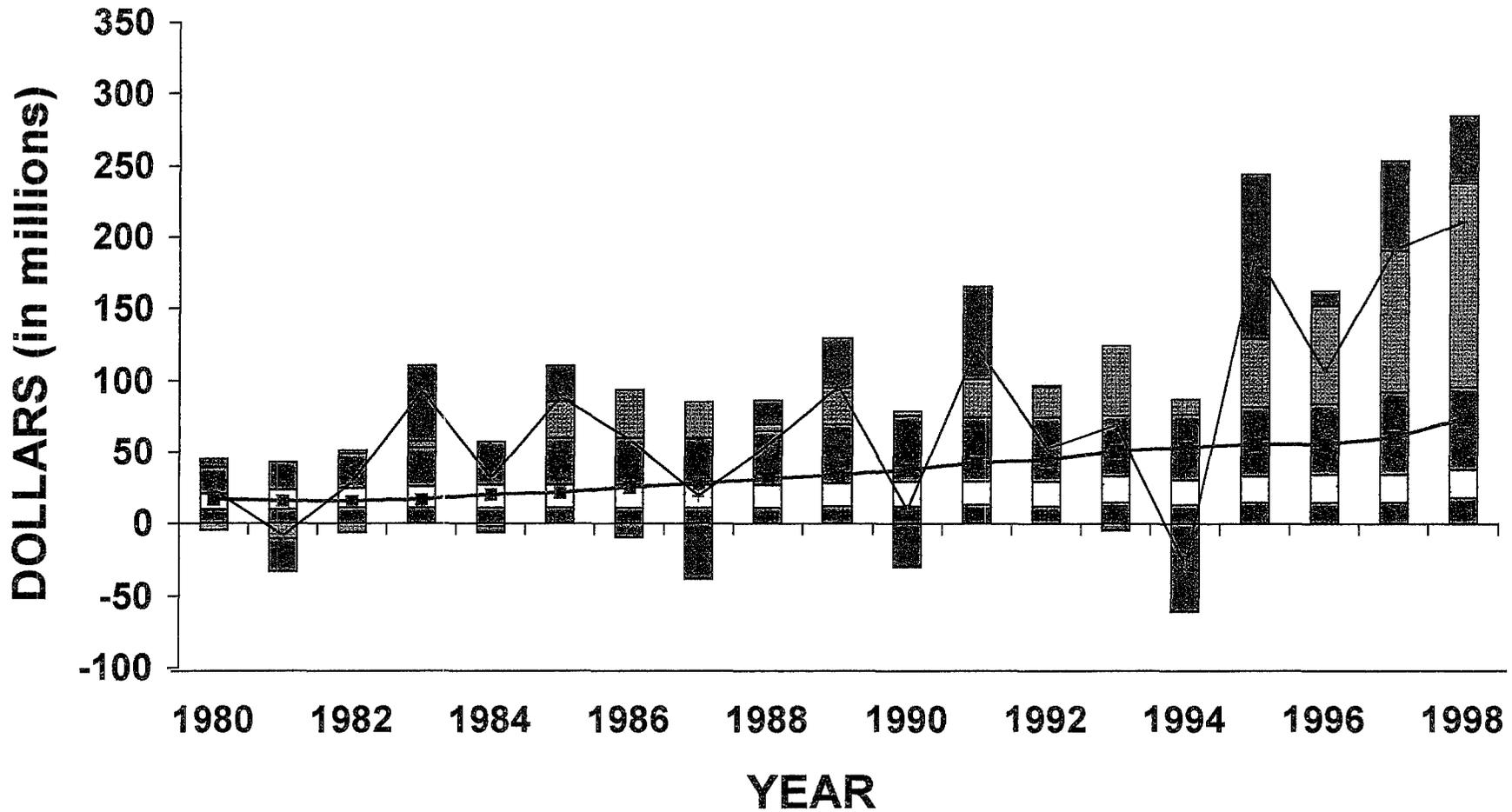
(Book Values vs Actuarial Values)



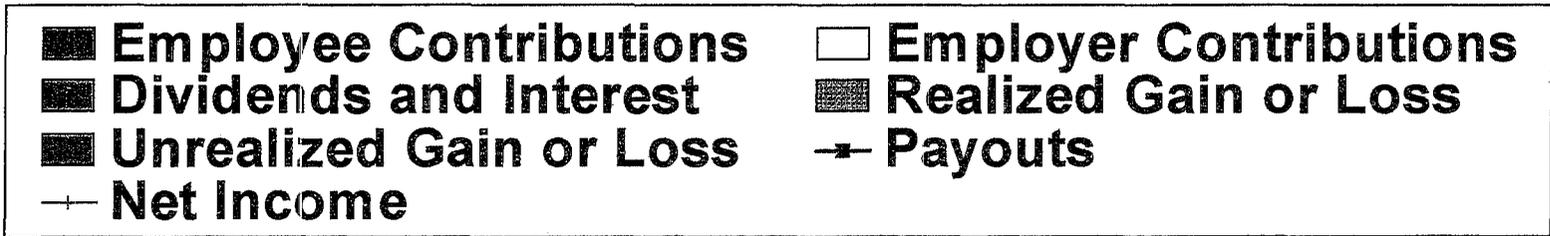
C



# INCOME AND PAYOUTS

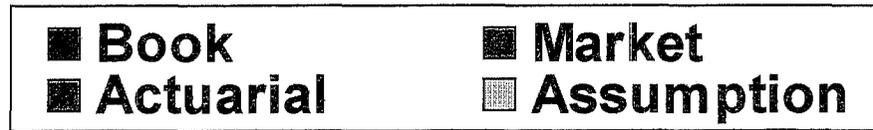
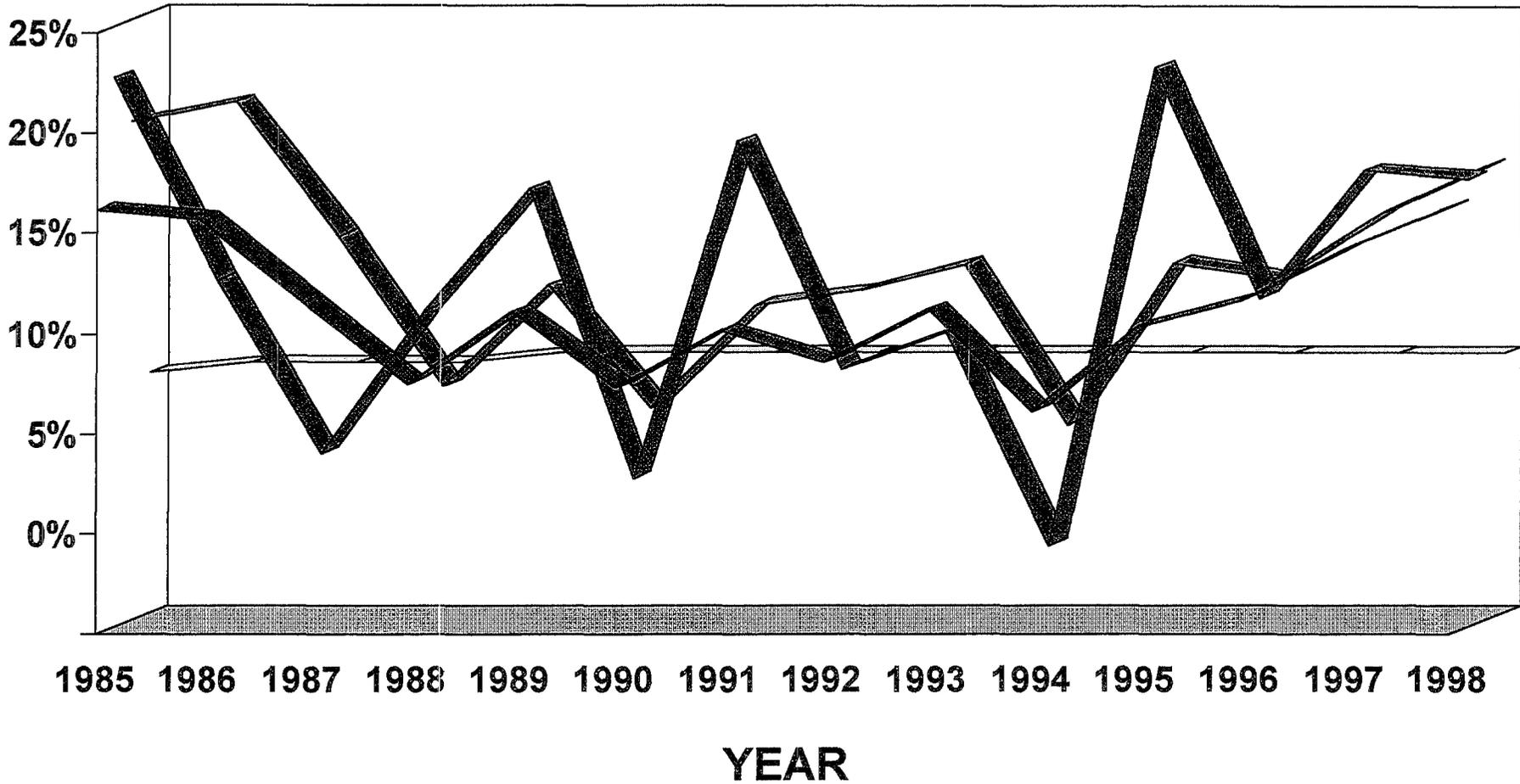


**D**

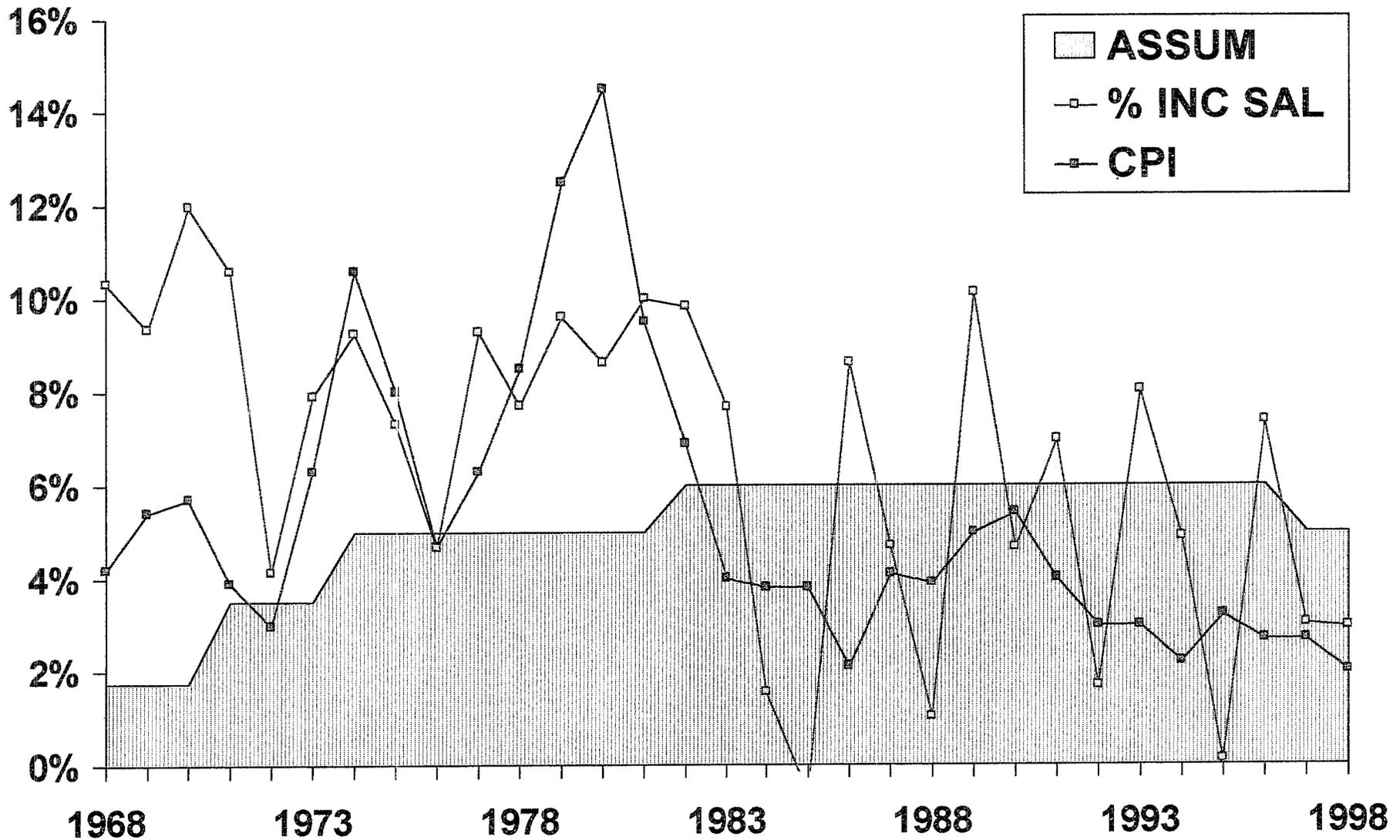


# YIELDS ON TOTAL ASSETS

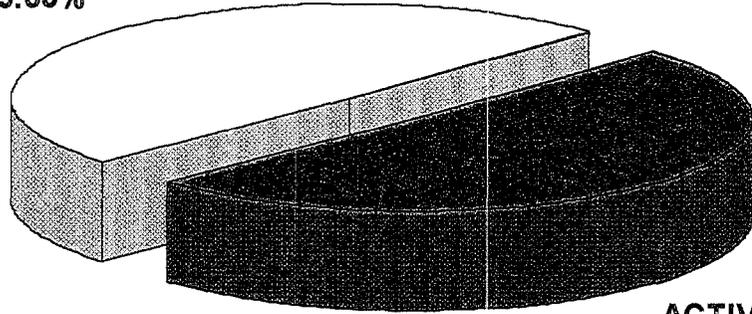
(Compared to Actuarial Assumption)



# ASSUMPTIONS VS SALARY INCREASE AND CHICAGO CONSUMER PRICE INDEX

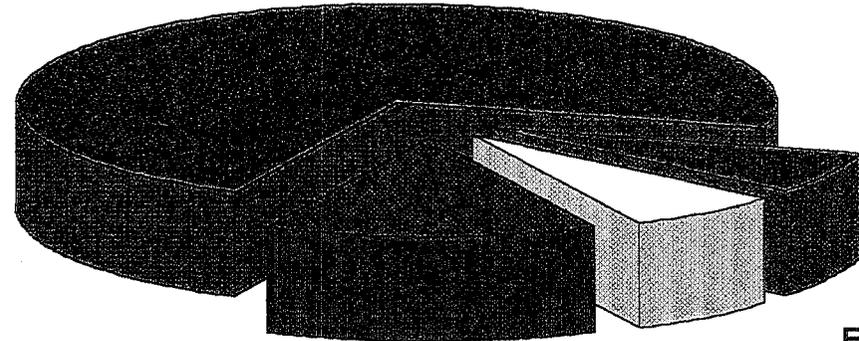


**RETIRED**  
49.35%



**ACTIVE**  
50.65%

**ASSETS**  
100.50%



**EXCESS**  
(19.55%)

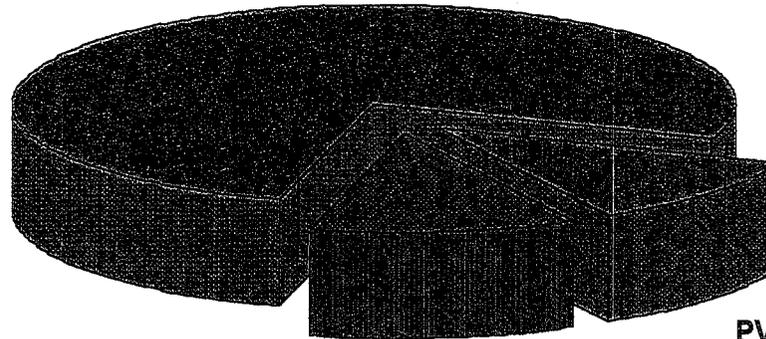
**PV  
EMPLOYER**  
9.33%

**PV  
EMPLOYEE**  
9.72%

## Actuarial Present Value of Benefits

## Actuarial Assets

**ASSETS**  
100.50%

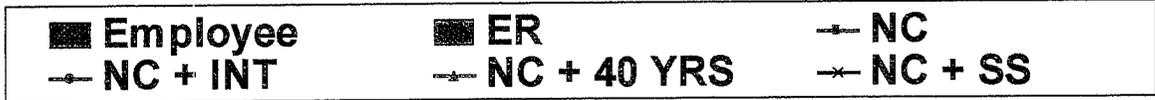
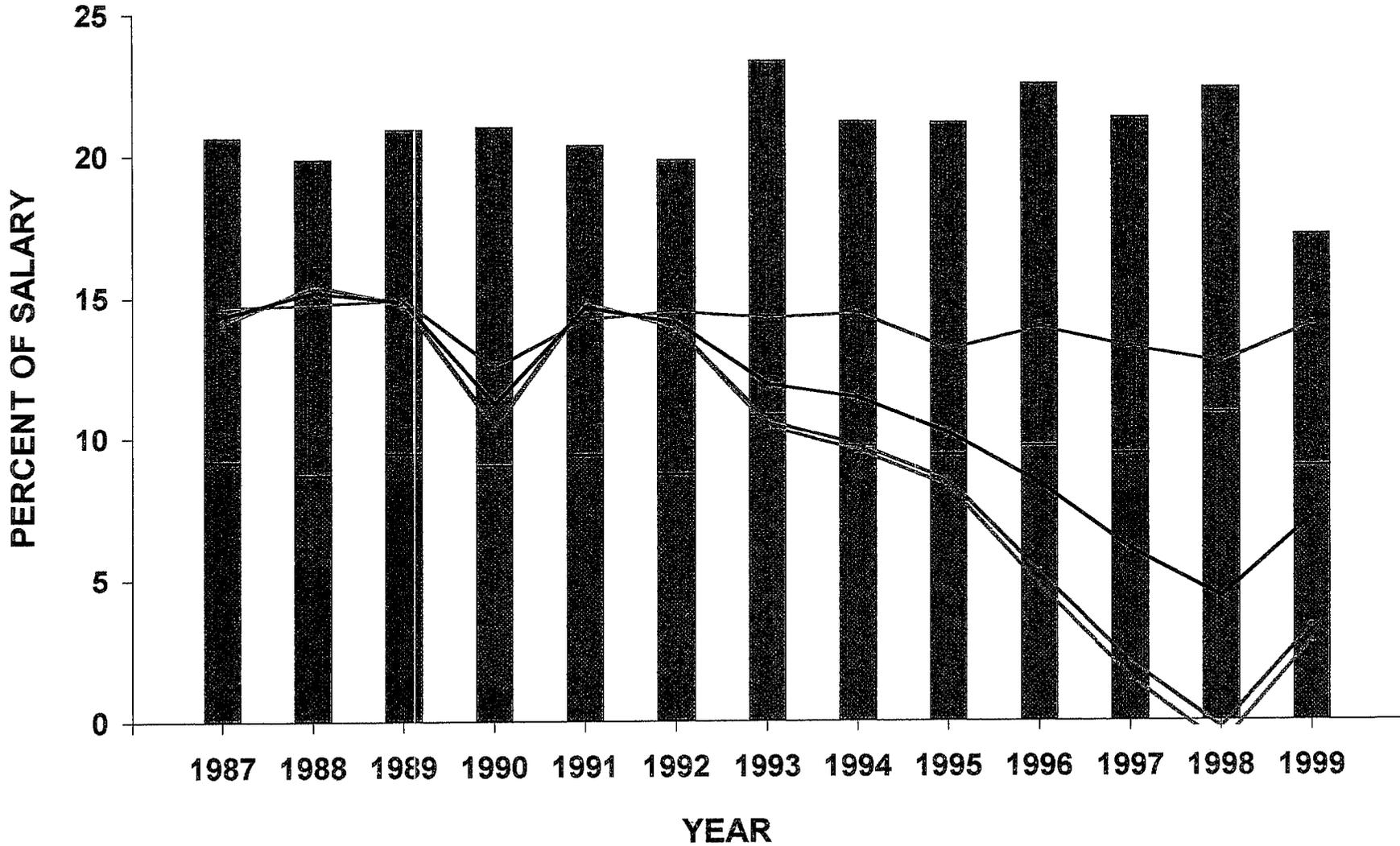


**UNFUNDED  
LIABILITY**  
(15.61%)

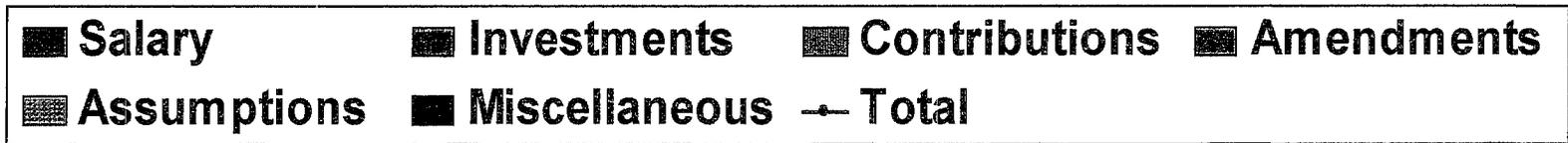
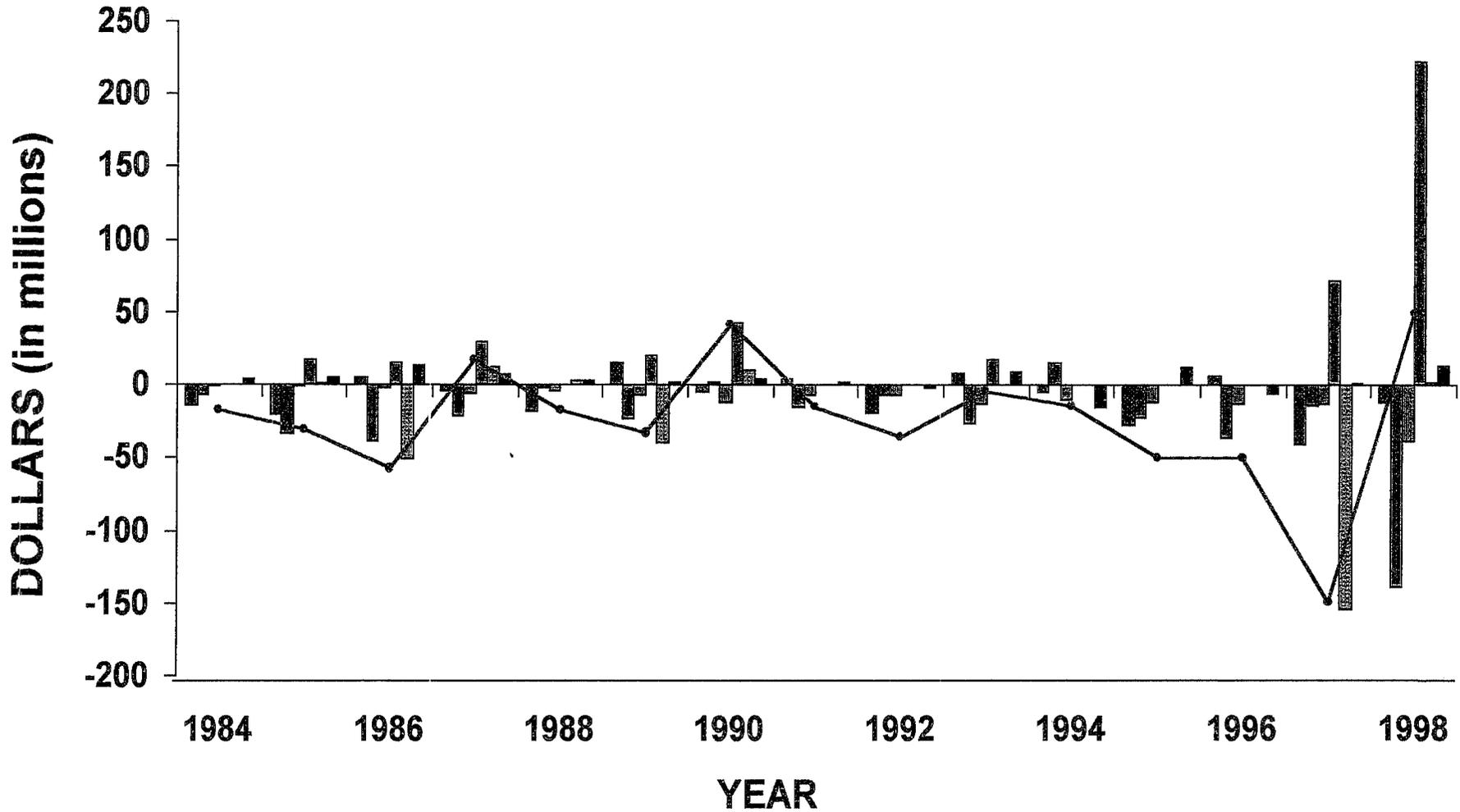
**PV OF  
NORMAL  
COSTS**  
15.11%

## Actuarial Cost Method

# ACTUARIAL COST

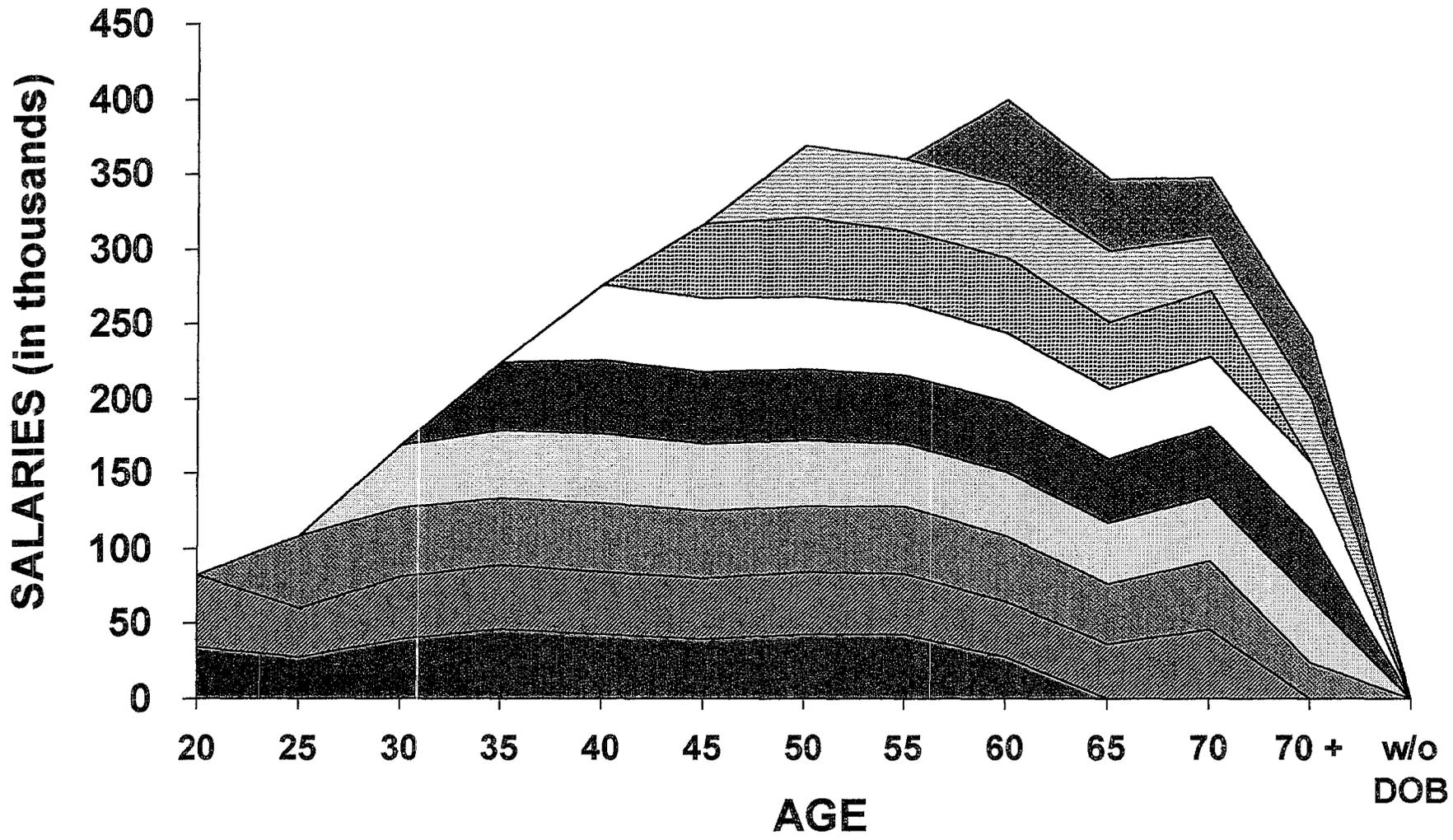


# CHANGE IN THE UNFUNDED LIABILITY





# EMPLOYEES BY AGE AND SERVICE

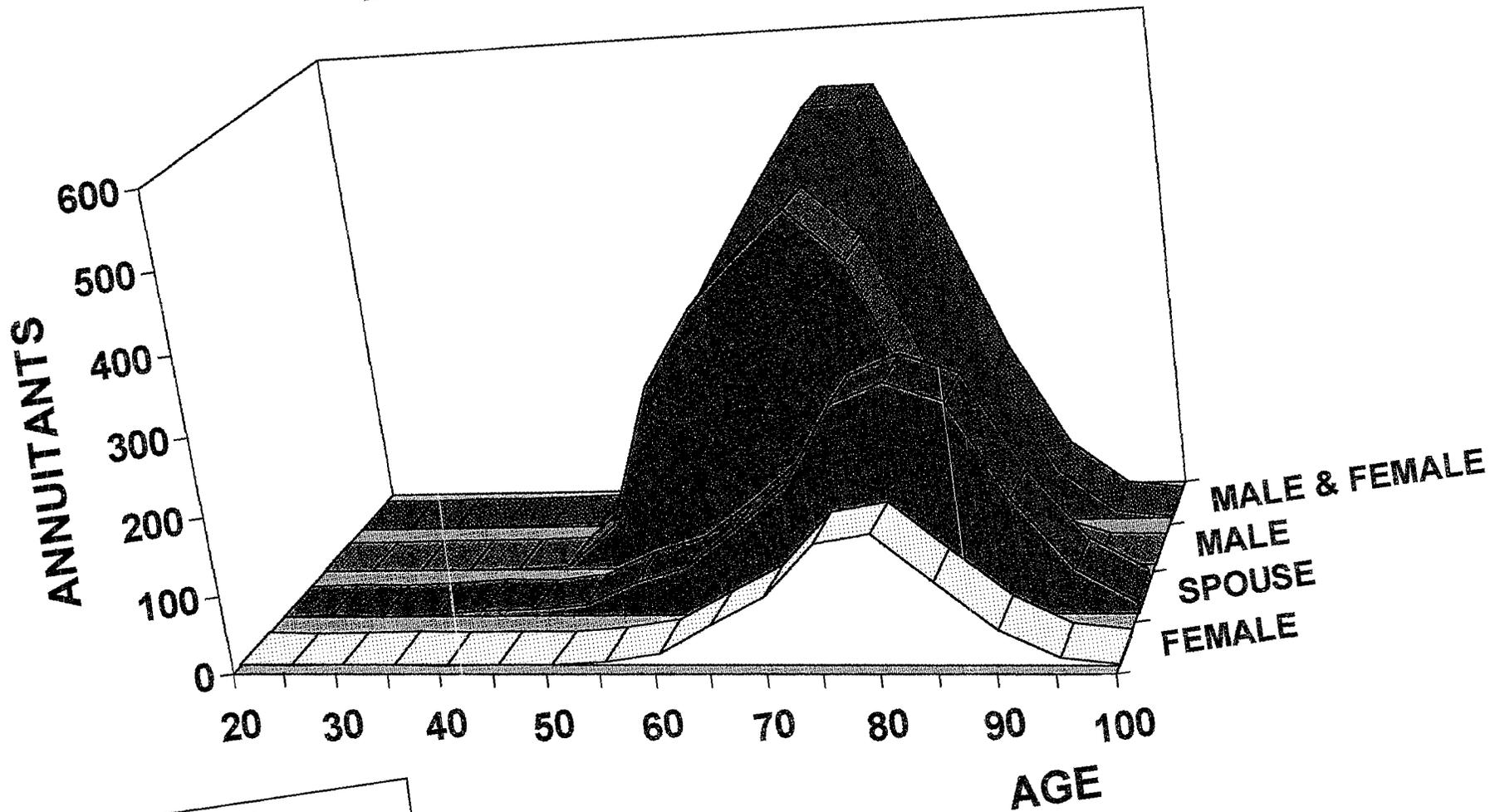


Service

■ < 1	▨ 1 - 4	▩ 5 - 9	▧ 10 - 14	■ 15 - 19
□ 20 - 24	▤ 25 - 29	▥ 30 - 34	▦ 35 +	

# ANNUITANTS BY AGE

Number of Annuitants



- FEMALE
- SPOUSE
- MALE
- MALE & FEMALE

# ANNUITANTS BY AGE

## Average Annual Payments to Annuitants

