

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

**ACTUARIAL STATEMENT**

December 31, 1995

Prepared by

**Donald F. Campbell  
Consulting Actuaries**

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<b>SUMMARY</b>	<b>1994</b>	<b>1995</b>
<b>Income</b>		
Investment	\$56,083,250	\$96,491,994
Employer and Miscellaneous	16,954,372	18,311,622
Employee	14,293,250	14,610,842
Total	87,330,872	129,414,458
<b>Outgo</b>		
Refunds, Benefits, Expenses	53,838,212	55,765,938
<b>Excess of Income Over Outgo</b>	<b>33,492,660</b>	<b>73,648,520</b>
<b>Active Participants</b>	<b>3,891</b>	<b>3,832<sup>1</sup></b>
<b>Inactive Participants</b>	<b>1,694</b>	<b>1,760</b>
<b>Beneficiaries</b>		
Employee	2,680	2,600
Spouse	1,403	1,427
Disabilities	161	142
Children	75	72
<b>Actuarial Funding - Going Concern</b>		
Liability	\$866,493,209	\$890,375,387
Assets, Book Value	905,389,873	979,038,393
Unfunded Liability (Surplus)	(38,896,664)	(88,663,006)
Funded Ratio	104.49%	109.96%
Actuarial Requirement (ER and EE)	\$20,451,183	\$21,340,898
Deficiency (Excess) in Annual Contribution	(10,718,691)	(10,906,267)
Required Employer Multiple (Normal Cost Plus Interest)	.64	.75
<b>Termination</b>		
Liability	\$561,903,337	\$576,448,766
Cost (Excess) on Termination	(343,486,536)	(402,589,627)
Quick Ratio	161%	170%
<b>Vested - Termination</b>		
Liability	\$740,338,167	\$771,670,833
Unfunded Liability (Surplus)	(165,051,706)	(207,367,560)
Funded Ratio	122.29%	126.87%
<b>GASB - Going Concern</b>		
Liability - APV Credited Projected	\$773,455,745	\$796,785,161
Unfunded Liability (Surplus)	(131,934,128)	(182,253,232)
Funded Ratio	117.06%	122.87%
<b>Investment</b>		
Invested Assets (Book Value)	\$888,976,621	\$968,135,987
Invested Assets (Market Value)	899,156,687	1,093,498,535
<b>Miscellaneous</b>		
Salary Roll	\$155,213,016	\$152,996,856
Average Salary	39,890	39,926

<sup>1</sup> Does not include 700 seasonal employees.

April 24, 1996

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

Gentlemen:

This is to certify that the annual statement as of December 31, 1995, of the Laborers' and 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 1995. This statement has been prepared from the unaudited books of the Fund as substantiated by our letters of recommendation to the Retirement Board.

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

The method of valuation, or method of financing the system, and the actuarial assumptions and methods used in the valuation are shown in a separate exhibit. The attempt is made to give effect to realistic valuation factors affecting 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 5/22-501.10 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 is shown in a separate exhibit.

The graph of Assets and Liabilities illustrates the Fund's position with respect to asset growth and accrued liability growth for the various ways of measuring the liabilities. Please note that the difference between the assets and the liability is what is called unfunded liability.

The graph of Funded Ratios displays the ratio of assets to liabilities for the various different measures of liability.

The graph of Income and Payouts 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 ERISA 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' 1996 survey, *New Paradigm, New Potency*, shows that the mean actuarial interest rate assumption for public funds (based on 269 public funds) was 8.2% for 1994 and 8.1% for 1995. The corresponding salary increase assumption for public funds was 5.6% for 1994 and 5.4% for 1995. For the 1996 survey, the average monthly benefit paid to all public retirees was \$977. Based on the *1996 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 70 years for the period 1926 through 1995.

		Total Annual Return	Inflation	Net
Common Stocks		10.5%	3.1%	7.4%
Small Stocks		12.5	3.1	9.4
Long-Term Corporate Bonds		5.7	3.1	2.6
Long-Term Government Bonds		5.2	3.1	2.1
Intermediate Term Gov't Bonds		5.3	3.1	2.2
U.S. Treasury Bills		3.7	3.1	0.6
Inflation for the past	5 years	1991-1995	2.8%	
	10 years	1986-1995	3.5	
	20 years	1976-1995	5.2	
	30 years	1966-1995	5.4	
	40 years	1956-1995	4.4	
	70 years	1926-1995	3.1	

Based on a portfolio made up of 60% in long-term corporate bonds and 40% in common stocks, the annual return for the 70-year period would be approximately 7.6% with a net return after inflation of 4.5%.

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 6% per year salary scale would also be reasonable. These assume an underlying 4% 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 6% per year salary scale assumption. These and all other assumptions are the same as those used for the last report. We have included market yield figures (net of investment expense) in Exhibit Q.

In our opinion, these actuarial assumptions in the aggregate are reasonable, taking into account fund experience and future expectations, and represent the best estimate of anticipated experience.

### Alternative Valuations

We can make alternative valuations giving effect to different rates of salary increases and investment earnings to serve as a guide to the Retirement Board and ourselves in estimating the effects on costs of possible future variations from the assumptions used. These can be submitted at a later time.

### 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, 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	2,600	\$267,093,934
Annuity Increase	2,490	46,030,347
Future Widow Benefit	1,763	28,385,774
Lump Sum Death Benefit	0	0
Health Insurance Supplement	2,483	11,104,508
Widow Annuity	1,427	<u>48,433,422</u>
<b>Total Retired Reserve</b>		<b>\$401,047,985</b>

## 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 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	Reserve
Employee Annuity	\$451,633,824	
Annuity Increase	93,466,813	
Future Widow/Widower Benefit	43,567,831	
Lump Sum Death Benefit	0	
Health Insurance Supplement	9,069,980	
Widow/Widower of Employees, Dying in Service	21,503,114	
Widow/Widower Compensation, Duty Death	0	
Miscellaneous	<u>95,373,466</u>	
Total Active	\$714,615,028	
Total Active and Retired Present Value of Benefits	\$1,115,663,013	
Less Present Value of Future Normal Costs		<u>\$225,287,626</u>
Net Active Reserve		489,327,402
Net Active Reserve and Retired		890,375,387
Less Present Assets		<u>979,038,393</u>
Surplus		\$ 88,663,006

The difference between the sum of the actuarial reserve for active and retired lives (sometimes called the "Accrued Actuarial Liability") and the present assets is called the "Unfunded 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.

	Present Value	Percent of Total
Present Assets	\$979,038,393	88 %
Future Employee Contributions	138,522,512	12
Future Employer Contributions	182,184,808	16
Deficiency (Excess)	<u>(184,082,700)</u>	<u>(16)</u>
<b>Total</b>	<b>\$1,115,663,013</b>	<b>100 %</b>

Present Value of	Actuarial Assets	Percent of Total	Actuarial Liabilities	Percent of Total
Benefits				
Retired Lives			\$401,047,985	36 %
Active Lives			714,615,028	64
Present Assets	\$979,038,393	88 %		
Normal Costs	225,287,626	20		
Unfunded Liability (Surplus)	<u>(88,663,006)</u>	<u>(8)</u>	_____	_____
<b>Total</b>	<b>\$1,115,663,013</b>	<b>100 %</b>	<b>\$1,115,663,013</b>	<b>100 %</b>

The pie charts illustrate:

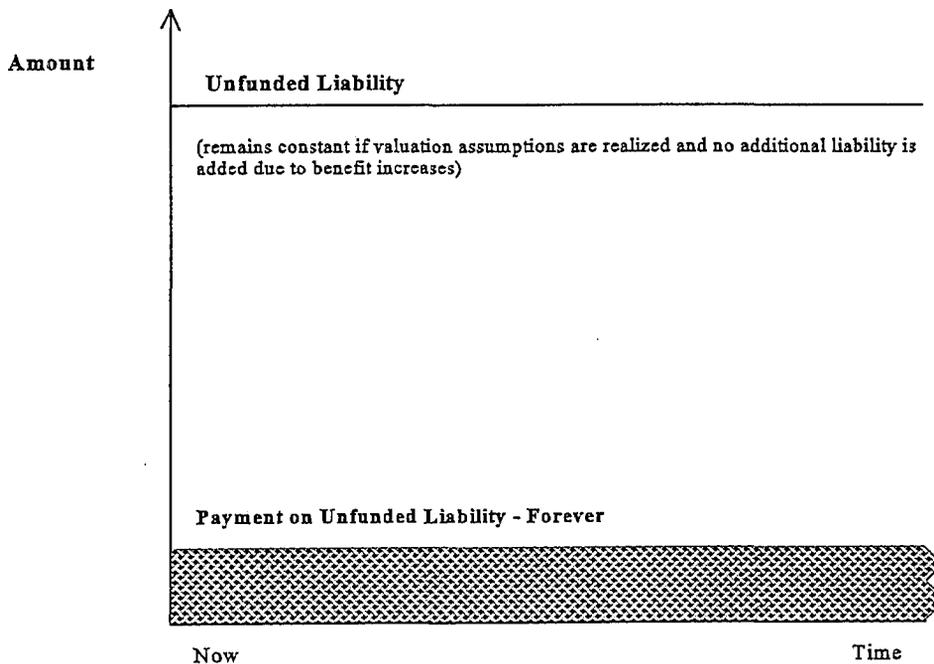
1. Actuarial Present Value of Future Benefits
2. Actuarial Assets
3. Actuarial Cost Method

# Three Methods of Financing the Unfunded Liability

## 1. Normal Cost Plus Interest Method

The method of valuation used for this report is the same as for the last report. It is the method that was used and is intended to continue the current provisions of the Article governing the fund in full force and effect on a permanent basis, explained in detail in the Section "Actuarial Assumptions and Methods." The method is also referred to as a middle of the road method of funding since the unfunded liability is recognized but not amortized.

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

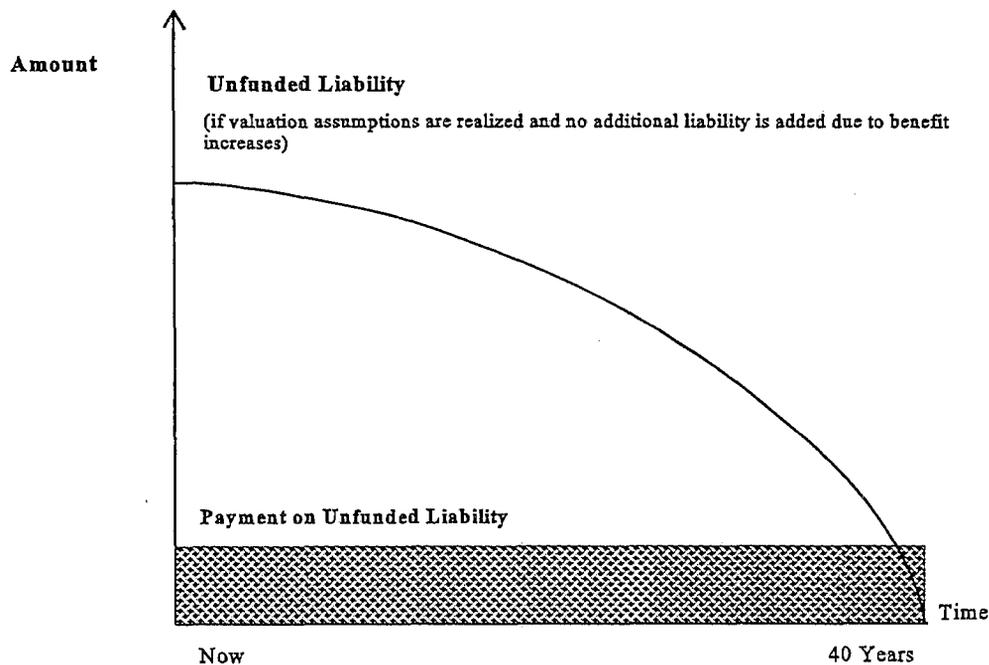


## 2. Normal Cost Plus 40 Year Amortization Method

ERISA minimum funding standards require that 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.

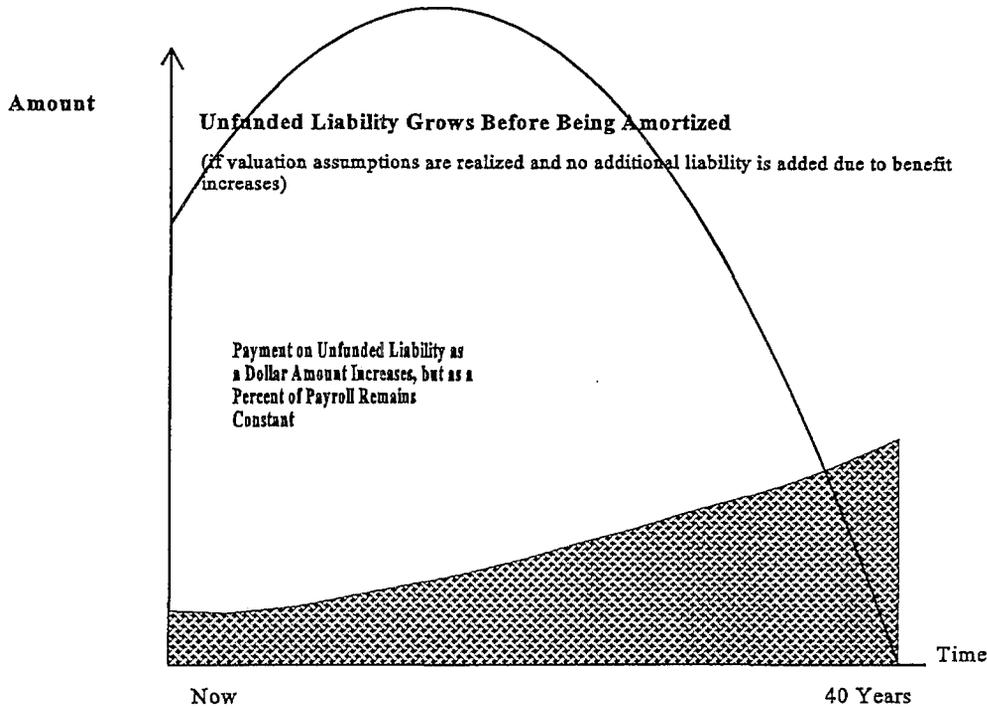
Both of these first two cost methods, the normal cost plus interest method and the normal cost plus 40 year amortization method, express the past service costs as a level annual dollar amount. Consequently, as the total payroll increases in the future, the level annual amount becomes a decreasing percent 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. 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 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 5/22-501.10. This year the required tax levy for all three methods is the same since there is no unfunded liability. The results are given in the following table:

	Required 1996 Tax Levy	Ultimate Required Multiple <sup>1</sup>
1. Normal Cost Plus Interest Only	\$8,683,505	0.75
2. ERISA: Normal Cost Plus 40-Year Amortization	\$8,683,505	0.75
3. Normal Cost Plus 40-Year Level % of Payroll Increasing 4% a Year (Inflation Only)	\$8,683,505	0.75
4. Present Law (Includes Park)	\$20,044,200	1.37

The Required Tax Levy shown is based on the employer's share of the Normal Cost plus Interest. Paragraph 11-178 requires the City to contribute until the present values of all annuities, present or prospective, are fully funded.

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

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. The Laborers' membership has been declining over the last 25 years. The active membership is slightly over half of what it was at the end of 1970.

### Required Actuarial Contribution

Based on the normal cost plus interest method of funding, we find that the tax levy for 1996 should be \$8,683,505, which amount includes a 4% reserve for loss on collection. This amount is based on an annual payroll (as of December 31, 1995) of \$152,996,856 and an active membership of 3,832 persons. The detail is shown in the table that follows.

## Detail of Annual City Contribution

	Last Year Amount	This Year Amount	Last Year Percent of Salary	This Year Percent of Salary	Last Year Dollars Per Active Member	This Year Dollars Per Active Member
1. Normal Cost for Current Service	\$20,451,183	\$21,340,898	13.18%	13.95%	\$5,256	\$5,569
2. Interest on Unfunded Liability	<u>0</u>	<u>0</u>	<u>0.00</u>	<u>0.00</u>	<u>0</u>	<u>0</u>
3. Total Actuarial Requirement (1 + 2)	<u>\$20,451,183</u>	<u>\$21,340,898</u>	<u>13.18</u>	<u>13.95</u>	<u>\$5,256</u>	<u>\$5,569</u>
4. Employee Contributions	13,193,106	13,004,733	8.50	8.50	3,391	3,394
5. Employer Requirement (3 - 4)	7,258,077	8,336,165	4.68	5.45	1,865	2,175
6. Expected Net Employer Contribution from Tax Levy	18,725,800	20,044,200				
After a 4% Loss	<u>17,976,768</u>	<u>19,242,432</u>	<u>11.58</u>	<u>12.58</u>	<u>4,620</u>	<u>5,021</u>
7. Expected Net Annual Deficiency (Excess)	(10,718,691)	(10,906,267)	(6.90)	(7.13)	(2,755)	(2,846)
8. Tax Levy Required <sup>1</sup> (Assume 4% Loss)	7,560,497	8,683,505				
9. Required Multiple <sup>1</sup>	.64	.75				
10. Present Authorized Multiple	1.37	1.37				

<sup>1</sup> Section 5/11-178 requires contributions until the balance in the prior service reserve equals its liabilities (including, in addition to all other liabilities, the present values of all annuities, present and prospective, according to the applicable mortality tables and rates of interest).

The "Illinois Public Employees' Pension Laws Commission Impact Statement," appended to this report, illustrates both the present financial position and the direction of the financial condition.

The above table indicates that the Fund is more than meeting the annual actuarial cost on the normal cost plus interest basis. The Employer Requirement and the Tax Levy Required shown are based on the employer's share of the current service cost. The statute requires the City to contribute until the present values of all annuities, present or prospective, are fully funded.

The bar chart illustrates the annual actuarial cost for the next year (composed of current service cost and past service cost) to be paid for by the employee and the employer. The annual cost is more than being met. The employer portion is provided by tax levy (the third column).

## Detail of Normal Cost

	Last Year % of Salary	This Year % of Salary	Last Year \$/Active Member	This Year \$/Active Member
Retirement Annuity	6.71%	6.72%	\$2,677	\$2,685
Post-Retirement Annuity Increase	1.41	1.41	563	565
Post-Retirement Spouse Annuity	.66	.66	263	263
Spouse Annuity for Death in Service	.52	.52	206	207
Health Insurance	.13	.13	52	51
Child's Annuity	.08	.07	31	29
Ordinary Disability	.62	.61	249	243
Duty Disability	.68	.69	271	275
Refunds	1.39	2.15	554	859
Widows'/Widowers' Compensation	0.00	0.00	0	0
Expense of Administration <sup>1</sup>	.79	.80	316	318
Reciprocal Benefits	<u>.19</u>	<u>.19</u>	<u>74</u>	<u>74</u>
<b>Total</b>	<b>13.18%</b>	<b>13.95%</b>	<b>\$5,256</b>	<b>\$5,569</b>

<sup>1</sup> Net of investment expense.

## Change in the Unfunded Liability

The total funded surplus as of December 31, 1995 is \$88,663,006. As of December 31, 1994, the total funded surplus was \$38,896,664. The unfunded liability has been eliminated, meaning all past service has been paid for.

## Detail of Change in Unfunded Liability

1. Increase in Salaries under 6.0% Assumed		\$(27,371,677)	Decrease
2. Investment Yield over 8.0% Assumed		(21,760,538)	Decrease
3. Excess in Annual Contribution:			
1995 Total Actuarial Requirement	\$20,451,183		
Less Employer Net to Fund 1995 Tax Levy	18,311,622		
Less Employee Contributions for 1995	<u>14,610,842</u>	(12,471,281)	Decrease
4. Miscellaneous Actuarial Experience		<u>11,837,154</u>	Increase
Net Change in Unfunded Liability		\$(49,766,342)	Decrease

See the historical tabulation in the back of this report.

## Funded Ratio

The ratio of assets to liabilities is 109.96% as of December 31, 1995, and was 104.49% as of December 31, 1994. This ratio represents the extent to which present and future benefit promises are secured by present assets. The funded ratio increased because assets increased 8.1% while liabilities increased only 2.8%.

## Ratio of Active Employees to Annuitants and Beneficiaries

The ratio of active employees to annuitants and beneficiaries is .90 as of December 31, 1995, and was also .90 as of December 31, 1994. This ratio illustrates the relationship between the contributors and the beneficiaries.

## Termination Liability

A measure of plan funding is to compare 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 what it would cost to terminate the plan as of the valuation date.

	1994	1995
Liability for Retired Annuitants and Widows/Widowers Spouses of Annuitants	\$395,721,090	\$401,047,985
Salary Deductions Contributed by Active Fund Members	<u>166,182,247</u>	<u>175,400,781</u>
Total	561,903,337	576,448,766
Assets at Book Value	<u>905,389,873</u>	<u>979,038,393</u>
Excess Upon Termination	343,486,536	402,589,627
Quick Ratio	161%	170%
Available Assets for Actives (Retirees Fully Funded)	\$509,668,783	\$577,990,408
Available per Active Employee	130,987	150,832
Refundable per Active Employee	42,709	45,773
Ratio of Available to Refundable	307%	330%

## Vested Liability

We have computed the value of vested benefits for active employees. That is, an employee who is eligible to retire, either with an immediate or deferred retirement annuity, is assumed to retire and is valued at the estimated amount of annuity for the employee's life. The value of estimated post retirement annuity increase and estimated spouse annuity is added. No death or disability benefits for those dying or becoming disabled in the future are included. Active employees not currently eligible for a retirement benefit are valued at the amount of their refundable accumulated salary deductions with statutory interest. Retired lives are entirely vested. The total vested liability computed using the actuarial assumptions of interest and mortality in this report is greater than the termination liability because the value of a retirement annuity for an eligible employee is greater than the amount of his or her accumulated salary deductions.

	1994	1995
Liability for Retired Annuitants and Widows/ Widowers and Spouses of Annuitants	\$395,721,090	\$401,047,985
Value of Active Employees Eligible to Retire	251,553,963	279,310,412
Accumulated Salary Deductions of Active Employees Eligible for Refund and Not Annuity	93,063,114	91,312,436
Active Vested Liability	<u>344,617,077</u>	<u>370,622,848</u>
Total Vested Liability	740,338,167	771,670,833
Assets at Book Value	<u>905,389,873</u>	<u>979,038,393</u>
Unfunded Vested Liability (Surplus)	\$(165,051,706)	\$(207,367,560)
Vested Funded Ratio	122.29%	126.87%

The average amount of assets required per active employee to provide for vested benefits as of the valuation date is \$96,718. This should be compared to the average amount of assets required per active employee to fully fund the present amount required to provide for future projected retirement annuity assuming future service and salary increments--using the entry age normal funding method described in the actuarial assumptions and methods. This amount per active employee is \$127,695.

## GASB Disclosure

The Governmental Accounting Standards Board (GASB) Statement No. 5, *Disclosure of Pension Information by Public Employee Retirement Systems and State and Local Governmental Employers*, requires disclosure of the actuarial present value of credited projected benefits for reports issued for fiscal years beginning after December 15, 1986.

The Actuarial Present Value (APV) of credited projected benefits must take into account the long-term nature of the pension obligations on a going concern basis (rather than a termination basis). Benefits are projected to anticipated retirement, assuming future salary increases and future years of service credit. The liability or value of credited benefits is determined based on the ratio of years of service to date to the total years of service at projected retirement. This measure differs from the actuarial cost method used for funding the pension plan. The credited projected benefit method is not recommended for funding if level costs are desired.

The stated purpose of the GASB disclosure is to provide persons familiar with financial matters with information useful to: (a) assess the funding status on a going concern basis; (b) ascertain the progress made in accumulating assets to pay benefits when due; and (c) assess the extent to which employers are making contributions to the system at actuarially determined rates. The use of a single actuarial method--the credited projected benefit method, which may differ from that used for funding--is to facilitate comparison and understanding. However, the financial health of the pension plan should be measured against the actuarial method used for funding the plan. No split between vested and non-vested current employees is possible, due to the different vesting schedules of the defined benefit and defined contribution portions of the benefits.

See complete GASB disclosure exhibit in the rear of this report.

	1994	1995
<b>Pension Benefit Obligation (PBO)</b>		
APV of Credited Projected Benefits		
Accumulated contributions (with interest)	\$166,182,247	\$175,400,781
Payable to retirees and beneficiaries	395,721,090	401,047,985
Payable to vested and non-vested current employees	<u>211,552,408</u>	<u>220,336,395</u>
Total APV	773,455,745	796,785,161
Net Assets Available for Benefits (book value)	<u>905,389,873</u>	<u>979,038,393</u>
Excess Assets over APV of Credited Projected Benefits	\$131,934,128	\$182,253,232
Percentage Funded	117.06%	122.87%
Surplus APV as Percent of Payroll	85.00%	119.12%

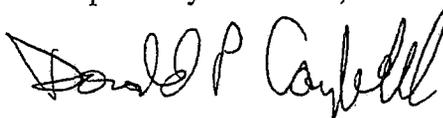
## The Future

A continuous review of the Fund's operating experience 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.

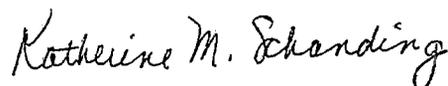
For example, for every \$1 increase in salary over the 6.0% increases assumed in the salary scale, the unfunded liability will be increased by about \$3.20. This will be in addition to the additional current annual service cost for every dollar in salary over the 6.0% salary scale assumed.

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.

Respectfully submitted,



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



Katherine M. Schanding, F.S.A., M.A.A.A.  
Enrolled Actuary No. 96-3838

DPC:iw

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

**Actuarial Balance Sheet**

as of

**December 31, 1995**

**Assets and Liabilities**

## ASSETS

## Actuarial Balance Sheet as of December 31, 1995

<b>Cash</b>		
In Bank	\$ 1,945,957.79	
Investment Trust Cash	<u>685,518.22</u>	
Total Cash		\$ 2,631,476.01
<b>Investments</b>		
Cash Equivalent (Market \$77,795,218)	77,795,218.42	
Bonds, Par Value (Market \$501,982,650)	493,367,670.66	
Bond Premiums and Discounts	(11,611,236.88)	
Common Stocks, Cost (Market \$464,558,855)	360,678,240.99	
Venture Capital (Market \$13,534,762)	9,324,934.00	
Real Estate (Market \$27,570,440)	34,946,749.07	
Reserve for Trust Account Loss	(4,422,199.62)	
Accrued Bond Interest	7,358,975.40	
Accrued Dividends	620,734.50	
Accrued Real Estate Income	<u>76,900.00</u>	
Total Investments		968,135,986.54
(Total Market \$1,093,498,535)		
<b>Accounts Receivable - Taxes</b>		
(See Exhibit D)		
Replacement Tax Due from State	2,622,000.00	
Tax Extension	17,693,830.64	
Less: Estimates for Loss and Cost of Collection	<u>1,910,673.90</u>	
Net Taxes Receivable		18,405,156.74
<b>Other Accounts Receivable</b>		
Salary Deductions Accrued	935,800.28	
Active Employee Accounts	302,426.04	
Inactive Employee Accounts	62,015.78	
Miscellaneous Accounts Receivable	<u>128.78</u>	
Total Other Accounts Receivable		1,300,370.88
<b>Other Assets</b>		
Furniture and Equipment	194,081.33	
Less: Accumulated Depreciation	120,886.46	
Prepaid Insurance	1,713.75	
Deferred Compensation Plan	<u>82,357.87</u>	
Total Other Assets		<u>157,266.49</u>
<b>Gross Ledger Assets</b>		990,630,256.66
<b>Less: Accounts Payable</b>		
Investment Manager Fees Payable	433,106.49	
Miscellaneous Employee Accounts	1,290,558.24	
Professional Fees Payable	23,661.22	
Deferred Compensation Trust Fund	82,357.87	
Due to Broker	<u>9,762,180.25</u>	
Total Accounts Payable		<u>11,591,864.07</u>
<b>Net Ledger Assets</b>		<u>\$979,038,392.59</u>

## LIABILITIES AND FUND BALANCES

## Actuarial Balance Sheet as of December 31, 1995

<b>Annuity Payment Fund Account</b>		
(Based on 3% Comb. and 4% Amer. Exp. Tables)		
Employee Annuitants	\$108,270,815.76	
Spouse Annuitants	35,577,525.24	
Spouses' Annuities Fixed	<u>33,426,370.56</u>	
Total Annuity Payment Fund		\$177,274,711.56
<b>Salary Deduction Fund Account</b>		
Employees	135,930,241.32	
Spouses of Employees	<u>31,174,383.99</u>	
Total Salary Deduction Fund		167,104,625.31
<b>City Contribution Fund Account</b>		
Employees	125,826,385.09	
Spouses of Employees	<u>41,701,570.87</u>	
Total City Contribution Fund		167,527,955.96
<b>Other Reserves</b>		
Supplementary Payment Reserve	89,910.15	
Annuity Payment Fund Account	<u>0.00</u>	
Total Other Reserves		89,910.15
<b>Prior Service Fund Account</b>		
(Based on 3% Comb. and 4% Amer. Exp. Tables)		
Employee Annuitants	268,673,177.88	
Spouse Annuitants	19,330,778.88	
Spouses' Annuities Fixed	14,811,616.54	
Salary Deductions--Annuity Increase	14,235,914.52	
Estimated Excess Liability <sup>1</sup>	<u>61,326,695.85</u>	
Total Prior Service Fund Account		<u>378,378,183.67</u>
<b>Total Liabilities</b>		890,375,386.65
<b>Obligations of Fund for Prior Service Liabilities<sup>1</sup></b>		<u>88,663,005.94</u>
<b>Total Net Liabilities and Fund Balances</b>		<u>\$979,038,392.59</u>

<sup>1</sup> The letter of transmittal attached hereto sets forth the manner in which this liability was determined.

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

**Income - Year 1995**

**Income and Expenditures**

## INCOME FOR YEAR OF 1995

## Salary Deductions

## Total Contributions by Employee

Employee	\$ 10,093,035.11	
Spouse	2,329,159.92	
Automatic Increase	776,339.21	
Ordinary Disability	159,395.84	
Received from Municipal	376,716.87	
Temporary Service Payments	197,166.54	
Miscellaneous Accounts Receivable	23,194.06	
Early Retirement Incentive Payments <sup>1</sup>	<u>0.00</u>	
Total		\$13,955,007.55
Other Service Payments	<u>225,688.62</u>	
Total Contributed by Employee		\$14,180,696.17
Total Contributed by City for Duty Disability, Deductions in Lieu	<u>430,145.91</u>	
Total Contributed by City		<u>430,145.91</u>
Total Salary Deductions		14,610,842.08

## City Contributions:

(1995 taxes of \$16,104,000 [City] plus \$9,500 [Park], less 5% for loss of collection \$805,675 plus replacement tax due from State of \$2,622,000)

Employees	10,251,743.57	
Spouses of Employees	3,412,507.79	
Ordinary Disability Fund	931,696.35	
Duty Disability Fund	1,054,607.56	
Child's Annuity Payment Fund	112,560.00	
Expense Fund	4,272,011.99	
Health Insurance	1,546,445.50	
Interest on Income	253,487.50	
Prior Service Annuity Fund	<u>(3,905,235.26)</u>	
Total City Contributions		17,929,825.00
Interest on Real Estate Taxes		5,394.40

## Investment Income

Interest on Bonds	37,194,543.17	
Dividends	8,651,948.94	
Income on Venture Capital	479,914.00	
Income on Real Estate	2,284,481.61	
Gain (Loss) on Sale of Bonds	7,772,899.99	
Gain (Loss) on Sale of Stocks	42,833,721.91	
Gain (Loss) on Real Estate	(739,271.85)	
Gain (Loss) on Venture Capital	<u>(1,986,244.00)</u>	
Total Investment Income		96,491,993.77

## Miscellaneous Income

60,032.43

## Total Income Forwarded

\$129,098,087.68

<sup>1</sup> Total Early Retirement Incentive payments were recognized as income in 1993. \$387,850.33 cash was received in 1995.

## EXPENDITURES FOR YEAR 1995

<b>Total Income Forwarded</b>		\$129,098,087.68
<b>Benefits</b>		
Employees' Annuities	\$38,163,745.03	
Spouses' Annuities	6,477,852.25	
Children Annuities	112,560.00	
Ordinary Disability (includes \$159,395.84 DIL)	931,696.35	
Duty Disability (includes \$430,145.91 DIL)	1,054,607.56	
Supplemental Annuities	10,184.64	
Annuitant Health Insurance	<u>1,546,445.50</u>	
<b>Total Benefits</b>	48,297,091.33	
Reciprocal Act Reimbursements	<u>(4,241.40)</u>	
Net Benefits Paid		\$48,292,849.93
<b>Expense of Administration</b>		
Salaries		
Regular Employees	489,499.33	
Payroll Taxes	8,796.91	
Group Health Insurance	98,671.80	
Life Insurance Premiums	1,686.30	
Services		
Actuarial Consulting	9,693.63	
Annuity Computation and Certification	119,906.40	
Employee Accounts and Data Processing	57,464.73	
Check Production	68,890.13	
Legal Expense	40,728.00	
Medical Expense	28,512.00	
Auditing	21,400.00	
Consulting	8,488.00	
Public Education	7,500.00	
Conference, Membership, & Education Expense	8,170.40	
Election Expense	553.60	
Printing and Stationery	42,457.57	
Office Supplies and Equipment	8,344.15	
Postage	37,922.14	
Rent and Electricity	111,340.60	
Telephone	3,914.45	
Depreciation Expense	31,809.04	
Miscellaneous	<u>3,385.84</u>	
Total Expenses		1,209,135.02
<b>Refunds</b>		3,178,365.00
<b>Transfer to Aldermanic Plan</b>		113,649.09
<b>Litigation Expense</b>		8,402.98
<b>Investment Manager Fees</b>		2,723,219.21
<b>Investment Custodian Fees</b>		<u>331,254.78</u>
<b>Total Expenditures</b>		<u>55,856,876.01</u>
<b>Excess Income Over Expenditures</b>		73,241,211.67
<b>Net Change in Reserve for Loss and Cost of Collection and Taxes Receivable for Prior Years</b>		316,370.37
<b>Net Change in Reserve for Payables and Receivables</b>		90,937.53
<b>Increase in Net Assets for Year</b>		<u>\$73,648,519.57</u>

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

**Comparative Analysis - Year 1995**

**Assets and Liabilities**

## COMPARATIVE ANALYSIS

## ASSETS

	01/01/95	12/31/95	Increase (Decrease)
<b>Cash</b>			
Total Cash	\$ (694,585)	\$2,631,476	\$3,326,061
<b>Investments</b>			
Cash Equivalents	104,637,392	77,795,219	(26,842,173)
Bonds (Par Value)	473,531,310	493,367,671	19,836,361
Bond Premiums and Discounts	(65,033,406)	(11,611,237)	53,422,169
Common Stocks	329,424,021	360,678,241	31,254,220
Investment in Venture Capital	11,339,708	9,324,934	(2,014,774)
Real Estate	33,282,762	34,946,749	1,663,987
Reserve for Trust Account Loss	(5,470,546)	(4,422,200)	1,048,346
Accrued Bond Interest	6,574,519	7,358,975	784,456
Accrued Dividends	690,861	620,735	(70,126)
Accrued Real Estate Income	<u>0</u>	<u>76,900</u>	<u>76,900</u>
Total Investments	888,976,621	968,135,987	79,159,366
<b>Accounts Receivable - Taxes</b>			
Replacement Tax from State	2,390,000	2,622,000	232,000
Tax Extension	16,222,500	17,693,831	1,471,331
Less: Estimates for L/C	<u>1,897,832</u>	<u>1,910,674</u>	<u>12,842</u>
Net Taxes Receivable	16,714,668	18,405,157	1,690,489
<b>Other Accounts Receivable</b>			
Salary Deductions Accrued	986,697	935,800	(50,897)
Active Employee Accounts	246,242	302,426	56,184
Inactive Employee Accounts	70,337	62,016	(8,321)
Miscellaneous Accounts Receivable	824	129	(695)
Early Retirement Incentive Accounts Receivable	387,850	0	(387,850)
Due from Broker	<u>340,815</u>	<u>0</u>	<u>(340,815)</u>
Total Other Accounts Receivable	2,032,765	1,300,371	(732,394)
<b>Other Assets</b>			
Furniture and Equipment	192,348	194,081	1,733
Accumulated Depreciation	(89,078)	(120,887)	(31,809)
Prepaid Insurance	0	1,714	1,714
Deferred Compensation Plan	<u>52,231</u>	<u>82,358</u>	<u>30,127</u>
Total Other Assets	155,501	157,266	1,765
<b>Gross Ledger Assets</b>	907,184,970	990,630,257	83,445,287
<b>Less: Accounts Payable</b>			
Investment Manager Fees Payable	428,167	433,107	4,940
Miscellaneous Employee Accounts	1,298,396	1,290,558	(7,838)
Professional Fees Payable	16,303	23,661	7,358
Deferred Compensation Trust Fund	52,231	82,358	30,127
Due to Broker	<u>0</u>	<u>9,762,180</u>	<u>9,762,180</u>
Total Accounts Payable	<u>1,795,097</u>	<u>11,591,864</u>	<u>9,796,767</u>
<b>Net Ledger Assets</b>	<u>\$905,389,873</u>	<u>\$979,038,393</u>	<u>\$73,648,520</u>

## COMPARATIVE ANALYSIS

## LIABILITIES AND FUND BALANCES

Liability Reserves	01/01/95	12/31/95	Increase (Decrease)
<b>Annuity Payment Fund</b>			
Employee Annuitants	\$108,974,433	\$108,270,816	\$(703,617)
Spouse Annuitants	32,855,872	35,577,525	2,721,653
Spouses' Annuities Fixed	<u>32,633,459</u>	<u>33,426,371</u>	<u>792,912</u>
Total	174,463,764	177,274,712	2,810,948
<b>Salary Deduction Fund Account</b>			
Employees	128,755,066	135,930,241	7,175,175
Spouses of Employees	<u>29,461,446</u>	<u>31,174,384</u>	<u>1,712,938</u>
Total	158,216,512	167,104,625	8,888,113
<b>City Contribution Fund Account</b>			
Employees	119,243,103	125,826,385	6,583,282
Spouses of Employees	<u>39,439,114</u>	<u>41,701,571</u>	<u>2,262,457</u>
Total	158,682,217	167,527,956	8,845,739
<b>Other Reserves</b>			
Supplemental Payment Reserve	89,095	89,910	815
Annuity Payment Fund Account	<u>0</u>	<u>0</u>	<u>0</u>
Total	89,095	89,910	815
<b>Prior Service Fund Account</b>			
Employee Annuitants	265,381,091	268,673,178	3,292,087
Spouse Annuitants	19,282,667	19,330,779	48,112
Spouses' Annuities Fixed	14,681,939	14,811,617	129,678
Salary Deductions--Annuity Increase	13,433,283	14,235,914	802,631
Estimated Excess Liability	<u>62,262,641</u>	<u>61,326,696</u>	<u>(935,945)</u>
Total	375,041,621	378,378,184	3,336,563
<b>Total Liabilities</b>	866,493,209	890,375,387	23,882,178
<b>Obligations for Prior Service (Unfunded)/Surplus</b>	<u>38,896,664</u>	<u>88,663,006</u>	<u>49,766,342</u>
<b>Total Net Liabilities</b>	<u>\$905,389,873</u>	<u>\$979,038,393</u>	<u>\$73,648,520</u>

## TAXES RECEIVABLE

December 31, 1995

Year	Uncollected Taxes 12/31/95	Estimate for Loss 12/31/94	Additional Est. Setup 12/31/95	Total Est. for Loss 12/31/95	Taxes Collectible 12/31/95
<b>City</b>					
1991	\$ 330,924.15	\$ (254,220.00)	\$ 1,619.27	\$ (252,600.73)	\$ 78,323.42
1992	197,424.29	(193,476.00)	13,716.29	(179,759.71)	17,664.58
1993	260,890.67	(460,560.00)	229,127.11	(231,432.89)	29,457.78
1994	789,221.93	(733,950.00)	293,580.00	(440,370.00)	348,851.93
1995	<u>16,104,000.00</u>	<u>0.00</u>	<u>(805,200.00)</u>	<u>(805,200.00)</u>	<u>15,298,800.00</u>
Total	\$17,682,461.04	\$(1,642,206.00)	\$(267,157.33)	\$(1,909,363.33)	\$15,773,097.71
<b>Park</b>					
1991	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
1992	0.00	(550.00)	550.00	0.00	0.00
1993	235.57	(550.00)	314.43	(235.57)	0.00
1994	1,634.03	(600.00)	0.00	(600.00)	1,034.03
1995	<u>9,500.00</u>	<u>0.00</u>	<u>(475.00)</u>	<u>(475.00)</u>	<u>9,025.00</u>
Total	\$ 11,369.60	\$ (1,700.00)	\$ 389.43	\$ (1,310.57)	\$ 10,059.03
<b>Total City and Park</b>					
	<u>\$17,693,830.64</u>	<u>\$(1,643,906.00)</u>	<u>\$(266,767.90)</u>	<u>\$(1,910,673.90)</u>	<u>\$15,783,156.74</u>
	Replacement Tax from State		1994	0.00	
				1995	<u>2,622,000.00</u>
					\$18,405,156.74

Note: The loss on the 1995 tax levy was 5%. Due to the 100% collection of the personal property replacement tax, the overall loss is 4%. The statutory requirement of \$18,735,500 is the sum of \$16,104,000 plus \$9,500 plus \$2,622,000.

Total City Contributions from Tax Levy = \$17,929,825.00 (see Income page).

MEMBERSHIP STATISTICS  
Year 1995

	Number at Beginning of Year	Increases			Decreases	Number at End of Year
		New	Inactive to Active	Total		
<b>A. Changes in Active Participants</b>						
Male	3,659	52	128	180	266	3,573
Female	<u>232</u>	<u>8</u>	<u>46</u>	<u>54</u>	<u>27</u>	<u>259</u>
Total	<u>3,891</u>	<u>60</u>	<u>174</u>	<u>234</u>	<u>293</u>	<u>3,832</u>

	Number at Beginning of Year	Increases			Decreases	Number at End of Year
		New	Active to Inactive	Total		
<b>B. Changes in Inactive Participants</b>						
Male	1,531	200	135	335	239	1,627
Female	<u>163</u>	<u>27</u>	<u>15</u>	<u>42</u>	<u>72</u>	<u>133</u>
Total	<u>1,694</u>	<u>227</u>	<u>150</u>	<u>377</u>	<u>311</u>	<u>1,760</u>

	Number at Beginning of Year	Increases	Decreases	Number at End of Year
<b>C. Changes in Annuitants and Beneficiaries</b>				
Employee Annuitants	2,534	93	182	2,445
Spouse Annuitants	1,362	88	62	1,388
Child Annuities	75	8	11	72
Ordinary Disability Benefits	55	95	101	49
Duty Disability Benefits	106	356	369	93
Reciprocal Employee	146	13	4	155
Spouse	41	0	2	39
Widow/Widower Compensation Annuities	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	<u>4,319</u>	<u>653</u>	<u>731</u>	<u>4,241</u>

<b>D. Ratio of Active Participants to Annuitants and Beneficiaries</b>	<u>0.90</u>	<u>0.90</u>
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**SALARY AND AGE STATISTICS**  
Year 1995

**Ages and Salaries as of December 31, 1995**

**Male**

Age	Number	Annual Salaries	Average Annual Salaries
Without DOB	0	\$ 0	\$ 0
Under 20	0	0	0
20 - 24	64	2,488,224	38,879
25 - 29	157	6,087,912	38,777
30 - 34	375	14,892,768	39,714
35 - 39	632	25,527,456	40,392
40 - 44	667	27,201,480	40,782
45 - 49	543	22,406,808	41,265
50 - 54	434	17,750,928	40,901
55 - 59	343	14,008,488	40,841
60 - 64	227	8,928,096	39,331
65 - 69	86	3,403,656	39,577
70 +	<u>45</u>	<u>1,777,632</u>	39,502
<b>Active</b>	<b><u>3,573</u></b>	<b><u>\$144,473,448</u></b>	<b><u>\$40,435</u></b>

**Female**

Without DOB	0	\$ 0	\$ 0
Under 20	0	0	0
20 - 24	5	116,640	23,328
25 - 29	28	903,720	32,276
30 - 34	41	1,529,808	37,312
35 - 39	43	1,560,168	36,283
40 - 44	41	1,486,032	36,245
45 - 49	29	1,057,344	36,460
50 - 54	16	501,816	31,364
55 - 59	22	598,392	27,200
60 - 64	18	432,480	24,027
65 - 69	12	270,960	22,580
70 +	<u>4</u>	<u>66,048</u>	16,512
<b>Active</b>	<b><u>259</u></b>	<b><u>\$ 8,523,408</u></b>	<b><u>\$32,909</u></b>

<b>Total Male and Female</b>	<b><u>3,832</u></b>	<b><u>\$152,996,856</u></b>	<b><u>\$39,926</u></b>
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**SALARY AND AGE STATISTICS  
Year 1995**

**Ages at Entrance**

Age	<u>Male</u>		<u>Female</u>	
	Number	Annual Salaries	Number	Annual Salaries
Under 25	1,377	\$57,925,368	53	\$1,809,072
25 - 29	777	31,533,480	52	1,698,840
30 - 34	562	22,086,168	62	2,064,624
35 - 39	355	13,803,264	43	1,313,592
40 - 44	248	9,540,648	26	884,904
45 - 49	134	5,120,880	14	490,248
50 - 54	73	2,680,200	5	151,008
55 - 59	38	1,432,080	3	98,400
60 and over	9	351,360	1	12,720
Without record	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<b>Totals</b>	<u><b>3,573</b></u>	<u><b>\$144,473,448</b></u>	<u><b>259</b></u>	<u><b>\$8,523,408</b></u>

Average Annual Salary	\$40,435	\$32,909
Average Attained Age	44.8	43.1
Average Service	15.6	10.8
Average Age at Entrance	29.2	32.3

**AGE AND SERVICE DISTRIBUTION**  
**Year 1995**

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

Age	Years of Service									Total
	Under 1	1 - 4	5 - 9	10-14	15-19	20-24	25-29	30-34	35+	
20-24	6	52	11							69
	\$34,096	\$38,022	\$38,470							\$37,752
25-29	7	78	98	2						185
	\$32,297	\$39,398	\$36,824	\$41,904						\$37,793
30-34	6	91	164	100	55					416
	\$34,852	\$39,484	\$37,043	\$42,252	\$42,184					\$39,477
35-39	1	74	151	136	274	39				675
	\$41,904	\$40,282	\$35,775	\$40,629	\$41,708	\$43,825				\$40,130
40-44	3	62	109	113	245	159	17			708
	\$41,608	\$39,720	\$35,468	\$40,533	\$40,956	\$42,950	\$46,505			\$40,519
45-49	2	32	73	83	161	129	87	5		572
	\$42,456	\$38,693	\$35,941	\$40,233	\$41,120	\$42,516	\$44,141	\$46,579		\$41,021
50-54	1	21	41	57	102	74	77	64	13	450
	\$30,192	\$40,306	\$35,913	\$39,112	\$38,515	\$41,315	\$42,104	\$44,397	\$46,547	\$40,562
55-59	1	11	26	29	84	55	58	73	28	365
	\$34,872	\$37,148	\$33,377	\$37,899	\$38,900	\$38,481	\$41,582	\$40,806	\$50,781	\$40,019
60-64		7	20	30	62	42	29	33	22	245
		\$39,206	\$34,616	\$37,174	\$39,442	\$38,400	\$38,212	\$35,877	\$42,195	\$38,206
65-69		2	5	12	24	17	8	12	18	98
		\$38,388	\$33,466	\$38,892	\$37,107	\$38,468	\$34,356	\$28,360	\$44,673	\$37,496
70+		2	2	5	13	3	10	2	12	49
		\$27,312	\$36,048	\$40,819	\$39,039	\$39,400	\$41,573	\$28,308	\$34,568	\$37,626
Number	27	432	700	567	1,020	518	286	189	93	3,832
Salary	\$35,425	\$39,319	\$36,101	\$40,333	\$40,630	\$41,663	\$42,249	\$40,391	\$44,884	\$39,926
Age										44.7
Service										15.3

AGE AND SERVICE DISTRIBUTION

Year 1995

Age and Service Grouping (Showing the Number of Inactive Members, of Males and Females Combined)

Age	Years of Service									Total
	Under 1	1 - 4	5 - 9	10-14	15-19	20-24	25-29	30-34	35+	
< 20	8	6								14
20-24	30	89								119
25-29	25	83	11	1						120
30-34	155	115	17	8	1					296
35-39	225	116	13	17	15	5				391
40-44	121	110	17	10	13	12				283
45-49	70	58	6	8	6	12	4	1		165
50-54	29	42	14	5	5	8	5	10		118
55-59	22	34	6	10	4	3	3	3		85
60-64	28	18	6		6	3		2		63
65-69	21	12	3	2		3	2			43
70+	9	21	8	9	3	3	3	2		58
w/o DOB	2	3								5
Number	745	707	101	70	53	49	17	18		1,760
Age										37.6
Service										3.5

HISTORY OF BENEFIT EXPENSES BY TYPE

Year	Employee Annuities	Widow Annuities	Children's Annuities	Ordinary Disabilities	Duty Disabilities	Hospitalization Benefits	Other <sup>1</sup>	Total Benefits
1976	\$ 5,228,273	\$1,104,352	\$ 93,796	\$ 881,437	\$ 325,162	\$ 0	\$77,925	\$ 7,710,946
1977	5,969,942	1,187,670	101,766	1,026,124	340,569	0	78,901	8,704,971
1978	6,745,093	1,337,886	135,739	1,105,370	369,582	0	70,369	9,764,039
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	12,161,292
1981	9,310,966	1,713,058	122,200	1,385,606	297,087	0	51,974	12,880,890
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	16,582,310
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	23,465,598
1988	20,682,766	3,743,668	127,950	1,191,429	1,370,321	309,744	41,810	27,467,689
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	32,029,184
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

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

Year	Employee Annuities	Widow Annuities	Children's Annuities	Ordinary Disabilities	Duty Disabilities	Hospitalization Benefits	Other <sup>1</sup>	Total Benefits
1976	67.80%	14.32%	1.22%	11.43%	4.22%	0.00%	1.01%	
1977	68.58	13.64	1.17	11.79	3.91	0.00	0.91	
1978	69.08	13.70	1.39	11.32	3.79	0.00	0.72	
1979	69.50	13.55	1.10	12.20	3.05	0.00	0.61	
1980	70.65	13.27	0.98	11.58	3.00	0.00	0.51	
1981	72.29	13.30	0.95	10.76	2.31	0.00	0.40	
1982	73.59	13.23	0.80	9.27	2.76	0.00	0.34	
1983	73.57	13.72	0.67	8.19	3.52	0.00	0.33	
1984	73.79	13.44	0.55	7.59	4.38	0.00	0.24	
1985	72.88	13.22	0.55	7.67	5.28	0.25	0.16	
1986	74.63	12.31	0.46	6.15	4.95	1.36	0.15	
1987	76.40	11.52	0.39	5.15	5.16	1.27	0.11	
1988	75.30	13.63	0.47	4.34	4.99	1.13	0.15	
1989	75.79	13.57	0.40	3.94	4.68	1.50	0.12	
1990	73.21	13.35	0.43	3.71	3.66	5.57	0.07	
1991	74.20	15.27	0.40	3.28	3.43	3.36	0.07	
1992	74.95	14.88	0.37	3.09	3.46	3.20	0.06	
1993	77.38	13.76	0.29	2.13	2.79	3.61	0.04	
1994	79.20	12.95	0.25	2.03	2.22	3.32	0.03	
1995	79.03	13.41	0.23	1.93	2.19	3.20	0.01	

Percent Increase from Year to Year

1977	14.19%	7.54%	8.50%	16.41%	4.74%	N/A	1.25%	12.89%
1978	12.98	12.65	33.38	7.72	8.52	N/A	(10.81)	12.17
1979	11.22	9.33	(12.55)	19.16	(10.97)	N/A	(6.99)	10.56
1980	14.52	10.37	0.13	6.96	11.00	N/A	(4.95)	12.65
1981	8.37	6.12	2.81	(1.65)	(18.67)	N/A	(16.45)	5.92
1982	9.48	6.98	(9.24)	(7.31)	28.85	N/A	(8.84)	7.53
1983	7.03	11.05	(10.88)	(5.45)	36.39	N/A	3.31	7.06
1984	12.16	9.54	(7.20)	3.59	39.10	N/A	(17.07)	11.82
1985	10.28	9.78	11.95	12.86	34.56	N/A	(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	(8.17)	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

ANNUITANTS CLASSIFIED BY AGE AS OF DECEMBER 31, 1995

Retirement Annuities

Age	Male Number	Annual Payments	Average Annual Payments	Female Number	Annual Payments	Average Annual Payments
20 - 24						
25 - 29						
30 - 34	1	\$1,753.80	\$1,753.80			
35 - 39						
40 - 44	1	3,408.36	3,408.36			
45 - 49	3	10,511.64	3,503.88			
50 - 54	5	39,367.68	7,873.54			
55 - 59	121	2,876,599.32	23,773.55	2	\$42,426.12	\$21,213.06
60 - 64	241	5,512,676.28	22,874.18	20	261,471.48	13,073.57
65 - 69	450	9,541,353.12	21,203.01	66	647,775.12	9,814.77
70 - 74	441	7,538,403.60	17,093.89	127	1,087,189.56	8,560.55
75 - 79	351	4,979,873.52	14,187.67	186	1,273,411.32	6,846.30
80 - 84	199	2,216,352.84	11,137.45	170	966,576.36	5,685.74
85 - 89	75	720,545.76	9,607.28	77	378,338.28	4,913.48
90 - 94	17	156,377.76	9,198.69	35	163,505.40	4,671.58
95 - 99	1	4,361.40	4,361.40	10	45,489.96	4,549.00
100-105	—	—	—	1	4,200.00	4,200.00
<b>Totals</b>	<u>1,906</u>	<u>\$33,601,585.08</u>	<u>\$17,629.37</u>	<u>694</u>	<u>\$4,870,383.60</u>	<u>\$7,017.84</u>
Average Age			<u>71</u>			<u>78</u>

Spouse Annuities (Not Including Compensation)

20 - 24						
25 - 29				1	\$3,600.00	\$3,600.00
30 - 34				2	7,366.56	3,683.28
35 - 39				6	22,156.56	3,692.76
40 - 44				6	21,600.00	3,600.00
45 - 49				17	77,139.12	4,537.60
50 - 54				41	209,494.80	5,109.63
55 - 59				74	392,954.04	5,310.19
60 - 64	3	\$12,912.48	\$4,304.16	111	648,072.60	5,838.49
65 - 69	2	7,200.00	3,600.00	179	906,887.88	5,066.41
70 - 74	6	23,170.80	3,861.80	272	1,416,188.76	5,206.58
75 - 79	9	36,695.52	4,077.28	304	1,275,668.16	4,196.28
80 - 84	5	18,000.00	3,600.00	224	893,730.12	3,989.87
85 - 89	3	10,800.00	3,600.00	115	434,560.32	3,778.79
90 - 94	1	3,600.00	3,600.00	36	128,604.36	3,572.34
95 - 99				10	36,000.00	3,600.00
100-105	—	—	—	—	—	—
<b>Totals</b>	<u>29</u>	<u>\$112,378.80</u>	<u>\$3,875.13</u>	<u>1,398</u>	<u>\$6,474,023.28</u>	<u>\$4,630.92</u>
Average Age			<u>75</u>			<u>73</u>

**HEALTH INSURANCE SUPPLEMENT  
CLASSIFIED BY AGE AS OF DECEMBER 31, 1995**

**Retirement Annuitants**

Age	Single Coverage	Family Coverage	Total Participants	Total Non-Part.	Total Annuitants	% Part/Annuitants
30 - 39	1	0	1	0	1	100.00%
40 - 49	1	2	3	1	4	75.00
50 - 59	34	62	96	32	128	75.00
60 - 69	237	357	594	183	777	76.45
70 - 79	382	371	753	352	1,105	68.14
80 - 89	211	96	307	214	521	58.93
Over 90	<u>21</u>	<u>7</u>	<u>28</u>	<u>36</u>	<u>64</u>	<u>43.75</u>
<b>Total</b>	887	895	1,782	818	2,600	68.54%

**Spouse Annuitants**

Under 30	0	1	1	0	1	100.00%
30 - 39	1	4	5	3	8	62.50
40 - 49	4	4	8	15	23	34.78
50 - 59	53	7	60	55	115	52.17
60 - 69	168	1	169	126	295	57.29
70 - 79	299	1	300	291	591	50.76
80 - 89	146	1	147	200	347	42.36
Over 90	<u>11</u>	<u>0</u>	<u>11</u>	<u>36</u>	<u>47</u>	<u>23.40</u>
<b>Total</b>	682	19	701	726	1,427	49.12%

NEW ANNUITIES GRANTED DURING 1995<sup>1</sup>

	Male Annuitants	Female Annuitants	Widows/ Widowers of Deceased Employees	Widows/ Widowers of Deceased Annuitants
Number Retired	85	19	12	75
Average Age Attained	63.0	68.4	55.8	68.7
Number with Spouse	67	7	12	75
Average Spouse Age	59.0	71.7	61.0	72.6
Percentage Married	78.82%	36.84%	100.0%	100.0%
Average Length of Service	27.5	28.8	17.3	26.0
Average Years on Pension				8.85
Avg. Final Salary	\$41,647	\$16,909	\$36,890	N/A
Total Final Salary	\$3,540,000	\$321,276	\$442,680	N/A
Avg. Annual Salary (4 out of 10)	\$38,126	\$15,452	N/A	N/A
Total Annual Annuity	\$1,952,108	\$193,809	\$95,127	\$481,580
Avg. Annual Annuity	\$22,966	\$10,201	7,927	\$6,421
Total Liability (8.0% UP-1984)	\$21,787,549	\$1,991,125	\$997,280	\$4,172,714
Avg. Liability	\$256,324	\$104,796	\$83,107	\$55,636
Total Contributed by EE <sup>2</sup>	\$3,854,904	\$192,413	\$456,686	N/A
Avg. Contribution	\$45,352	\$10,127	\$38,057	N/A
Expected Future Lifetime (yrs.)	16.02	16.02	26.04	16.02
Payback Period (yrs.)	1.97	.99	4.80	N/A
Replacement Ratio	55.14%	60.31%	21.49%	N/A
Liability/Salary	6.15	6.20	2.25	N/A
Liability/Contributions	5.65	10.35	2.18	N/A

<sup>1</sup> Does not include 2 employees and 1 widow who went on annuity and died during 1995.

<sup>2</sup> Includes "Pickup."

## NEW RECIPROCAL ANNUITIES GRANTED DURING 1995

	Reciprocal	Reciprocal Last Service with Laborers'
Number Retired	13	5
Average Age Attained	60.8	59.4
Number with Spouse	11	4
Average Spouse Age	56.0	54.8
Percentage with Spouse	84.60%	80.00%
Average Total Service	32.1	34.6
Average Service with this Fund	17.5	29.6
Avg. Final Salary	\$39,695	\$41,796
Total Final Salary	\$516,036	\$208,980
Avg. Annual Salary (4 out of 10)	\$38,282	\$40,582
Total Annual Annuity	\$191,017	\$131,805
Avg. Annual Annuity	\$14,694	\$26,361
Total Liability (8.0% UP-1984)	\$2,180,494	\$1,518,040
Avg. Liability	\$167,730	\$303,608
Total Contributed by EE <sup>1</sup>	\$332,831	\$261,685
Avg. Contribution	\$25,602	\$52,337
Expected Future Lifetime (yrs.)	18.14	18.88
Payback Period (yrs.)	1.74	1.99
Replacement Ratio	37.02%	63.07%
Liability/Salary	4.23	7.26
Liability/Contributions	6.55	5.80

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

## RETIREES AND BENEFICIARIES BY TYPE OF BENEFIT

### Last 16 Years

Year	Employee Annuitants	Spouse Annuitants <sup>1</sup>	Child Annuities	Ordinary Disability	Duty Disability	Widow Comp.	Reciprocal Employees	Reciprocal Widows
1980	2,337	1,155	139	152	25	2	42	6
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	2,660	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

<sup>1</sup> Includes reversionary.

## AVERAGE EMPLOYEE RETIREMENT BENEFITS PAYABLE

Year Ended	Average Annual Retirement 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
1979	\$3,581.85		\$5,687.33		71.8	65.1	23.1
1980	3,765.74	5 %	5,250.68	(8)%	71.8	65.4	21.4
1981	4,111.60	9	5,756.53	10	71.0	64.9	22.3
1982	4,433.95	8	7,129.16	24	72.1	64.6	23.8
1983	4,774.89	8	7,520.11	5	72.1	65.3	24.0
1984	5,315.46	11	9,226.74	23	72.7	65.9	25.3
1985	5,867.92	10	10,456.00	13	72.4	64.8	25.5
1986	6,730.00	15	12,485.10	19	72.4	64.9	27.0
1987	7,934.57	18	13,822.53	11	72.3	65.0	28.0
1988	8,516.46	7	13,047.88	(6)	72.6	65.0	27.5
1989	9,035.92	6	12,581.68	(4)	72.6	64.7	26.4
1990	10,045.29	11	15,731.97	25	72.6	64.6	28.1
1991	10,807.31	8	16,443.69	5	73.0	64.2	27.0
1992	11,586.22	7	17,010.22	3	73.2	65.2	27.1
1993	13,514.91	17	21,804.15	28	72.2	63.6	30.4
1994	14,059.49	4	15,866.17	(27)	72.7	63.3	23.2
1995	14,796.91	5	20,633.83	30	73.1	64.0	27.8

**HISTORY OF NEW ANNUITIES GRANTED<sup>1</sup>**  
**1975 - 1995**

Year	Male Annuitants	Female Annuitants	Total Annuitants	Widows/ Widowers of Deceased Employees	Widows/ Widowers of Deceased Annuitants	Total Widows/ Widowers	Total New
1975	136	76	212	91 <sup>2</sup>	0 <sup>2</sup>	91	303
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	399	40	439	15	80	95	534
1994	44	7	51	7	62	69	120
1995	85	19	104	12	75	87	191

<sup>1</sup> Does not include employees and widows who went on annuity and died during the same year.

<sup>2</sup> No differentiation between widows of deceased employees or annuitants in 1975.

## HISTORY 1965 TO 1995

## History of Average Annual Salaries

Year End	Members in Service <sup>1</sup>	Percent Increase	Total Salary	Percent Increase	Average Salary	Percent Increase	Actuarial Salary Assumption	CPI Chicago
1965	7,936	0.9%	\$45,872,832	3.2%	\$5,780		1.00%	
1966	7,995	0.7	47,598,552	3.8	5,954	3.0	1.00	2.8
1967	8,102	1.3	52,268,304	9.8	6,451	8.3	1.75	2.8
1968	7,891	(2.6)	56,165,136	7.5	7,118	10.3	1.75	4.2
1969	7,777	(1.4)	60,523,296	7.8	7,782	9.3	1.75	5.4
1970	7,220	(7.2)	62,916,768	4.0	8,714	12.0	1.75	5.7
1971	6,864	(4.9)	66,142,320	5.1	9,636	10.6	3.50	3.9
1972	6,971	1.6	69,950,692	5.8	10,035	4.1	3.50	3.0
1973	6,752	(3.1)	73,108,848	4.5	10,828	7.9	3.50	6.3
1974	6,638	(1.7)	78,526,728	7.4	11,830	9.3	5.00	10.6
1975	7,032	5.9	89,276,280	13.7	12,696	7.3	5.00	8.0
1976	6,811	(3.1)	90,487,008	1.4	13,285	4.6	5.00	4.7
1977	6,752	(0.9)	98,029,296	8.3	14,519	9.3	5.00	6.3
1978	6,613	(2.1)	103,399,152	5.5	15,636	7.7	5.00	8.5
1979	6,175	(6.6)	105,825,264	2.3	17,138	9.6	5.00	12.5
1980	5,847	(5.3)	108,854,496	2.9	18,617	8.6	5.00	14.5
1981	5,765	(1.4)	118,054,512	8.5	20,478	10.0	5.00	9.5
1982	5,970	3.6	134,293,920	13.8	22,495	9.8	6.00	6.9
1983	5,424	(9.1)	131,355,840	(2.2)	24,218	7.7	6.00	4.0
1984	5,341	(1.5)	131,327,856	(0.0)	24,589	1.5	6.00	3.8
1985 <sup>2</sup>	5,138	(3.8)	125,594,688	(4.4)	24,444	(0.6)	7.00	3.8
1986	4,844	(5.7)	128,601,816	2.4	26,549	8.6	6.00	2.1
1987	4,873	0.6	135,453,096	5.3	27,797	4.7	6.00	4.1
1988	4,725	(3.0)	132,685,608	(2.0)	28,082	1.0	6.00	3.9
1989	4,592	(2.8)	142,024,296	7.0	30,929	10.0	6.00	5.0
1990	4,498	(2.0)	145,612,704	2.5	32,373	4.7	6.00	5.4
1991	4,304	(4.3)	149,054,136	2.4	34,632	7.0	6.00	4.0
1992	4,022	(6.6)	141,618,648	(5.0)	35,211	1.7	6.00	3.0
1993	3,867	(3.9)	147,076,752	3.9	38,034	8.0	6.00	3.0
1994	3,891	0.6	155,213,016	5.5	39,890	4.9	6.00	2.2
1995	3,832	(1.5)	152,996,856	(1.4)	39,926	0.1 <sup>3</sup>	6.00	3.2

Average Increase  
(Decrease) for the  
Last 5 Years

(3.1)%

1.1%

4.3%

3.1%

Average Last  
10 Years

(2.9)%

2.1%

5.1%

3.6%

<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 first time due to a change in the law.

<sup>3</sup> Average annual increase in salary 1965-1995, about 6.7% compounded. The average increase in the Chicago CPI for the same period is about 5.4%.

**HISTORY OF TOTAL ANNUITIES**  
**Employee Annuitants (Male and Female)**

Year End	Number of Annuitants	Total Annuities	Average Annuities
1971	1,675	\$2,927,594	\$1,748
1972	1,724	3,373,308	1,957
1973	1,777	3,781,854	2,128
1974	1,831	4,331,609	2,366
1975	1,907	4,887,747	2,563
1976	2,009	5,633,971	2,804
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	7,934
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

**Spouse Annuitants (Not Including Compensation)**

1971	921	\$711,618	\$773
1972	932	775,469	832
1973	967	860,410	890
1974	997	959,632	963
1975	1,022	1,053,816	1,031
1976	1,041	1,142,064	1,097
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

## HISTORY OF INVESTMENT YIELDS

Book Value								
Year	Investment Yield on Total Assets				Investment Yield on Invested Assets			
	Excluding Gains/Losses		Including Gains/Losses		Excluding Gains/Losses		Including Gains/Losses	
1977	7.01%		7.00%		7.35%		7.35%	
1978	6.61		5.34		6.97		5.62	
1979	7.38		6.61		7.82		7.00	
1980	7.69		5.66		8.20		6.03	
1981	8.46		3.99		9.11		4.29	
1982	9.88		7.64		10.47		8.09	
1983	9.37	9.30% <sup>1</sup>	11.14	11.07% <sup>1</sup>	9.79	9.72% <sup>1</sup>	11.64	11.57% <sup>1</sup>
1984	9.67	9.58 <sup>1</sup>	8.88	8.79 <sup>1</sup>	10.12	10.03 <sup>1</sup>	9.30	9.21 <sup>1</sup>
1985	8.89	8.72 <sup>1</sup>	16.34	16.17 <sup>1</sup>	9.27	9.10 <sup>1</sup>	17.07	16.89 <sup>1</sup>
1986	7.44	7.14 <sup>1</sup>	16.06	15.74 <sup>1</sup>	7.72	7.41 <sup>1</sup>	16.69	16.34 <sup>1</sup>
1987	6.50	6.20 <sup>1</sup>	11.90	11.59 <sup>1</sup>	6.71	6.40 <sup>1</sup>	12.29	11.96 <sup>1</sup>
1988	6.81	6.55 <sup>1</sup>	7.78	7.52 <sup>1</sup>	7.00	6.73 <sup>1</sup>	7.99	7.72 <sup>1</sup>
1989	7.06	6.71 <sup>1</sup>	11.50	11.14 <sup>1</sup>	7.21	6.85 <sup>1</sup>	11.75	11.38 <sup>1</sup>
1990	7.05	6.69 <sup>1</sup>	7.67	7.31 <sup>1</sup>	7.22	6.85 <sup>1</sup>	7.85	7.48 <sup>1</sup>
1991	6.45	6.11 <sup>1</sup>	10.53	10.18 <sup>1</sup>	6.61	6.27 <sup>1</sup>	10.80	10.44 <sup>1</sup>
1992	5.93	5.56 <sup>1</sup>	9.00	8.63 <sup>1</sup>	6.06	5.69 <sup>1</sup>	9.21	8.83 <sup>1</sup>
1993	5.14	4.75 <sup>1</sup>	11.72	11.31 <sup>1</sup>	5.23	4.84 <sup>1</sup>	11.95	11.53 <sup>1</sup>
1994	5.20	4.85 <sup>1</sup>	6.52	6.17 <sup>1</sup>	5.30	4.94 <sup>1</sup>	6.64	6.28 <sup>1</sup>
1995	<u>5.30</u>	<u>4.95<sup>1</sup></u>	<u>10.79</u>	<u>10.43<sup>1</sup></u>	<u>5.38</u>	<u>5.03<sup>1</sup></u>	<u>10.96</u>	<u>10.60<sup>1</sup></u>
5-Yr. Avg.	5.60%	5.24%	9.71%	9.34%	5.72%	5.35%	9.91%	9.54%

Year	Actuarial Assumption	Average Insurance Company	30 Year Treasury	3-Month Treasury Bills	Market Value <sup>1</sup>	
					Investment Yield on Total Assets	Investment Yield on Invested Assets
1977	6.00%	6.89%	N/A	5.265%		
1978	6.00	7.31	8.49%	7.221		
1979	6.00	7.73	9.29	10.041		
1980	6.00	8.02	11.30	11.506		
1981	6.00	8.57	13.44	14.029		
1982	6.75	8.91	12.76	10.686		
1983	6.75	8.96	11.18	8.520		
1984	6.75	9.45	12.39	9.570	7.35% <sup>1</sup>	7.68% <sup>1</sup>
1985	7.00	9.63	10.79	7.470	22.41 <sup>1</sup>	23.37 <sup>1</sup>
1986	7.50	9.35	7.80	5.970	12.33 <sup>1</sup>	12.77 <sup>1</sup>
1987	7.50	9.10	8.59	5.820	3.67 <sup>1</sup>	3.78 <sup>1</sup>
1988	7.50	9.03	8.96	6.690	10.84 <sup>1</sup>	11.09 <sup>1</sup>
1989	8.00	9.10	8.45	8.120	16.95 <sup>1</sup>	17.32 <sup>1</sup>
1990	8.00	8.89	8.61	7.510	2.46 <sup>1</sup>	2.52 <sup>1</sup>
1991	8.00	8.63	8.14	5.420	19.28 <sup>1</sup>	19.77 <sup>1</sup>
1992	8.00	8.08	7.67	3.450	7.94 <sup>1</sup>	8.11 <sup>1</sup>
1993	8.00	7.52	6.59	3.020	9.81 <sup>1</sup>	9.99 <sup>1</sup>
1994	8.00	7.14	7.37	4.290	(0.91) <sup>1</sup>	(0.92) <sup>1</sup>
1995	8.00	<u>N/A</u>	<u>6.05</u>	<u>5.150</u>	<u>23.03<sup>1</sup></u>	<u>23.39<sup>1</sup></u>
5-Yr. Avg.		8.05%	7.16%	4.270%	11.83%	12.07%

<sup>1</sup> Investment income is net of investment expense. Investment expense includes investment manager fees and investment custodian fees. Yields for illustration only; not valid for comparison.

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

Bonds valued at amortized value, 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.

### 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.

## LEGISLATIVE CHANGES

- 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.
  - 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).

## LEGISLATIVE CHANGES

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

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**HISTORY OF RECOMMENDED EMPLOYER MULTIPLES AND TAXES LEVIED**

<b>Year of Report</b>	<b>Statutory Multiple</b>	<b>Normal Cost Plus Interest</b>	<b>Normal Cost Plus 40 Year Amortization</b>	<b>Normal Cost Plus 40 Year % of Salary Amortization</b>
1979	1.370	1.62	1.71	1.34
1980	1.370	1.96	2.04	1.67
1981	1.370	1.59	1.67	1.30
1982 <sup>a</sup>	1.370	1.34	1.40	1.03
1983 <sup>b</sup>	1.370	1.54	1.60	1.21
1984	1.370	1.58	1.63	1.30
1985 <sup>a, b</sup>	1.370	1.60	1.64	1.33
1986 <sup>a, b</sup>	1.370	0.99	1.00	0.94
1987 <sup>a, b</sup>	1.370	1.13	1.15	1.03
1988 <sup>a</sup>	1.370	1.03	1.04	0.98
1989 <sup>a, b</sup>	1.370	0.56	0.56	0.56
1990 <sup>a, b</sup>	1.370	1.01	1.02	0.93
1991 <sup>b</sup>	1.370	0.93	0.94	0.90
1992	1.370	0.80	0.80	0.80
1993 <sup>b</sup>	1.370	0.83	0.83	0.83
1994	1.370	0.64	0.64	0.64
1995	1.370	0.75	0.75	0.75

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

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

<b>Year</b>	<b>City</b>	<b>Park</b>	<b>Tax Levy Total</b>
1979	\$11,500,000	\$28,000	\$11,528,000
1980	12,211,000	29,000	12,240,000
1981	12,924,000	27,000	12,951,000
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

## HISTORY OF FINANCIAL INFORMATION

## History of Change in Unfunded Liability

Year	Salary Scale	Investment	Contribution	Amendments
1980	\$8,111,444	\$758,925	\$178,166	\$0
1981	12,205,164	4,852,598	2,104,112	0
1982	13,090,805	(4,232,954)	(249,949)	0
1983	4,185,219	(12,540,094)	(805,111)	28,057,130
1984	(13,893,652)	(6,915,903)	(708,947)	0
1985	(20,313,749)	(33,560,632)	(404,023)	17,491,073
1986	5,125,287	(38,156,363)	(1,490,690)	15,144,096
1987	(4,287,957)	(21,518,841)	(6,348,853)	29,787,872
1988	(17,739,334)	(1,525,244)	(4,261,332)	0
1989	15,101,648	(23,284,941)	(6,570,202)	20,350,471
1990	(5,117,094)	2,118,850	(12,015,013)	42,423,925
1991	4,169,961	(14,867,104)	(6,632,943)	341,496
1992	(18,990,267)	(7,386,966)	(6,823,103)	0
1993	7,962,153	(26,152,154)	(12,818,511)	17,246,336
1994	(5,006,319)	15,775,880	(9,930,961)	0
1995	<u>(27,371,677)</u>	<u>(21,760,538)</u>	<u>(12,471,281)</u>	<u>0</u>
Totals	\$ (42,768,368)	\$ (188,395,481)	\$ (79,002,800)	\$ 170,842,399

Year	Assumptions	Miscellaneous	Total
1980	\$0	\$ (4,483,742)	\$ 4,564,793
1981	0	(12,538,029)	6,623,845
1982	(10,209,470)	(2,498,897)	(4,100,465)
1983	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	(50,944,726)	13,613,438	(56,708,958)
1987	12,677,781	7,445,130	17,755,132
1988	3,593,768	3,136,595	(16,795,547)
1989	(39,817,812)	2,260,506	(31,960,330)
1990	10,229,489	4,280,144	41,920,301
1991	0	2,282,873	(14,705,717)
1992	0	(1,851,369)	(35,051,705)
1993	0	9,414,432	(4,347,744)
1994	0	(15,131,496)	(14,292,896)
1995	<u>0</u>	<u>11,837,154</u>	<u>(49,766,342)</u>
Totals	\$ (73,664,622)	\$ 21,768,612	\$ (191,220,260)

Over the last 16 years, the unfunded liability has decreased by \$191.2 million. The biggest component of increase has been benefit changes which account for \$170.8 million, followed by miscellaneous changes due to actuarial experience (retirement, disability, death and withdrawal) of \$21.8 million. The components which reduced the unfunded liability over the same period were investment earnings in excess of the assumed amount of \$188.4 million; followed by more than adequate contributions (on the interest only basis) of \$79.0 million; followed by changes in actuarial assumptions of \$73.7 million; followed by salary increase under the assumed amount of \$42.8 million.

Investment earnings in excess of the assumed amount have been the general trend, including this year. Salary increases generally have exceeded the assumed increases, but not always, and have been offset by the investment gains. Experience for retirements and withdrawals tends to fluctuate, but tracks fairly well the assumed rates. Mortality experience has been somewhat heavier than expected, so the assumed mortality tables can be considered as having a margin for future mortality improvement.

**HISTORY OF FINANCIAL INFORMATION**  
**Accrued and Unfunded Liabilities**

Year End	Accrued Liability	Assets at Book Value	Funded Ratio	Unfunded Accrued Liability (Surplus)	Payroll	Unfunded Accrued % Payroll (Surplus)
1975	\$242,216,859	\$151,749,085	62.7%	\$90,467,774	\$89,276,280	101 %
1976 <sup>a</sup>	252,410,689	168,219,982	66.6	84,190,707	90,487,008	93
1977	277,111,671	186,428,465	67.3	90,683,205	98,029,296	93
1978 <sup>a</sup>	301,135,468	202,643,520	67.3	98,491,948	103,399,152	95
1979	323,368,034	220,810,778	68.3	102,557,256	105,825,264	97
1980	345,364,820	238,242,772	69.0	107,122,048	108,854,496	98
1981	367,980,498	254,234,605	69.1	113,745,893	118,054,512	96
1982 <sup>a</sup>	391,353,993	281,708,565	72.0	109,645,428	134,293,920	82
1983 <sup>b</sup>	444,711,069	321,404,078	72.3	123,306,991	131,355,840	94
1984	462,455,964	356,809,111	77.2	105,646,853	131,327,856	80
1985 <sup>a, b</sup>	495,844,974	420,554,173	84.8	75,290,801	125,594,688	60
1986 <sup>a, b</sup>	507,984,848	489,403,006	96.3	18,581,842	128,601,816	14
1987 <sup>a, b</sup>	583,284,026	546,947,052	93.8	36,336,974	135,453,096	27
1988 <sup>a</sup>	604,440,661	584,899,234	96.8	19,541,427	132,685,608	15
1989 <sup>a, b</sup>	633,894,540	646,313,443	101.9	(12,418,903)	142,024,296	(9)
1990 <sup>a, b</sup>	716,604,604	687,103,206	95.9	29,501,398	145,612,704	20
1991 <sup>b</sup>	761,056,602	746,260,921	98.1	14,795,681	149,054,136	10
1992	777,385,162	797,641,186	102.6	(20,256,024)	141,618,648	(14)
1993 <sup>b</sup>	847,293,445	871,897,213	102.9	(24,603,768)	147,076,752	(17)
1994	866,493,209	905,389,873	104.5	(38,896,664)	155,213,016	(25)
1995	890,375,387	979,038,393	110.0	(88,663,006)	152,996,856	(58)

**Solvency (Termination) Test**

Year End	Retired Liability	Active Member Salary Deductions	Total Termination Liability	Assets at Book Value	Termination Cost (Excess)	Quick Ratio Assets to Termination Liability
1979	\$86,918,802	\$83,057,007	\$169,975,809	\$220,810,778	\$(50,834,969)	130 %
1980	97,598,923	85,989,360	183,588,283	238,242,772	(54,654,489)	130
1981	107,291,048	88,378,748	195,669,796	254,234,605	(58,564,809)	130
1982 <sup>a</sup>	113,743,284	94,516,563	208,259,847	281,708,565	(73,448,718)	135
1983 <sup>b</sup>	128,901,825	106,730,627	235,632,452	321,404,078	(85,771,626)	136
1984	142,713,639	111,888,474	254,602,113	356,809,111	(102,206,998)	140
1985 <sup>a, b</sup>	158,514,452	117,882,073	276,396,525	420,554,173	(144,157,648)	152
1986 <sup>a, b</sup>	179,881,434	122,432,246	302,314,080	489,403,006	(187,088,926)	162
1987 <sup>a, b</sup>	215,483,599	126,554,299	342,037,898	546,947,052	(204,909,154)	160
1988 <sup>a</sup>	229,024,543	133,793,756	362,818,299	584,899,234	(222,080,935)	161
1989 <sup>a, b</sup>	241,519,125	143,445,325	384,964,450	646,313,443	(261,348,993)	168
1990 <sup>a, b</sup>	271,401,625	150,398,932	421,800,557	687,103,206	(265,302,649)	163
1991 <sup>b</sup>	291,757,778	156,649,525	448,407,303	746,260,921	(297,853,618)	166
1992	311,642,762	161,298,914	472,941,676	797,641,186	(324,699,510)	169
1993 <sup>b</sup>	403,591,438	152,059,845	555,651,283	871,897,213	(316,245,930)	157
1994	395,721,090	166,182,247	561,903,337	905,389,873	(343,486,536)	161
1995	401,047,985	175,400,781	576,448,766	979,038,393	(402,589,627)	170

<sup>a</sup> Change in valuation assumptions

<sup>b</sup> Change in benefits

Quick ratio is defined as assets divided by the termination liability.

## HISTORY OF FINANCIAL INFORMATION

## Vested (Termination) Liability Test

Year Fund	Vested Liability	Assets at Book Value	Unfunded Vested Liability (Surplus)	Vested Funded Ratio
1982	\$368,579,867	\$281,708,565	\$86,871,302	76.43%
1983	413,979,589	321,404,078	92,575,511	77.64
1984	434,396,250	356,809,111	77,587,139	82.14
1985	452,742,177	420,554,173	32,188,004	92.89
1986	485,169,186	489,403,006	(4,233,820)	100.87
1987	536,192,096	546,947,052	(10,754,956)	102.01
1988	558,761,115	584,899,234	(26,138,119)	104.68
1989	594,007,120	646,313,443	(52,306,323)	108.81
1990	658,926,727	687,103,206	(28,176,479)	104.28
1991	694,461,459	746,260,921	(51,799,462)	107.46
1992	712,967,572	797,641,186	(84,673,614)	111.88
1993	759,803,208	871,897,213	(112,094,005)	114.75
1994	740,338,167	905,389,873	(165,051,706)	122.29
1995	771,670,833	979,038,393	(207,367,560)	126.87

## GASB DISCLOSURE

### Plan Description

Any employee of the City of Chicago or the Board of Education of the City 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' and 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 Compiled Statutes (Chapter 40, Pensions, Article 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, 1995 was \$152,996,856. At December 31, 1995 the Laborers' Plan membership consisted of:

Retirees and beneficiaries currently receiving benefits (includes disabilities)	4,241
Terminated employees entitled to benefits or a refund of contributions but not yet receiving them	1,760
Current employees	3,832

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 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 30 years of service. The original annuity is limited to 75% of the highest average annual salary. The monthly annuity is increased by 3% of the original annuity at the first payment date following the later of age 60 or the first anniversary of retirement, and by 3% of the original annuity 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 1.37 annually.

**GASB DISCLOSURE****Plan Assets**

Bonds are stated at amortized value; stocks are at cost; real estate separate accounts are at adjusted cost.

**Funding Status and Progress**

The amount shown below as the **pension benefit obligation** is a standardized disclosure measure of the present value of pension benefits, adjusted for the effects of projected salary increases and step-rate benefits, estimated to be payable in the future as a result of employee service to date. The measure is intended to help users assess the funding status of the system on a going concern basis, assess progress made in accumulating sufficient assets to pay benefits when due, and make comparisons among employers. The measure is the Actuarial Present Value (APV) of credited projected benefits and is independent of the funding method used to determine contributions to the system. No split between vested and non-vested current employees is possible, due to the different vesting schedules of the defined benefit and defined contribution portions of the benefits.

The pension benefit obligation was computed as part of an actuarial valuation performed as of December 31, 1995. Significant actuarial assumptions used in the valuation for 1995 include: (a) a rate of return on the investment of present and future assets of 8% per year (net of investment expense) compounded annually; (b) projected salary increases of 4% per year compounded annually, attributable to inflation; (c) additional projected salary increase of 2% per year, attributable to seniority/merit; and (d) post-retirement benefit increases of 3% per year (not compounded) for employee annuitants age 60 and over. All the assumptions are the same as those used in the last report.

## GASB DISCLOSURE

At December 31, 1995, the excess of assets over the pension benefit obligation was \$182,253,232.  
At December 31, 1994, this excess was \$131,934,128.

Pension Benefit Obligation (PBO)	1994	1995
APV of Credited Projected Benefits		
Payable to Retirees and Beneficiaries	\$395,721,090	\$401,047,985
Current Employees:		
Accumulated Employee Contributions	\$166,182,247	\$175,400,781
Payable to Vested and Non-Vested Current Employees	<u>211,552,408</u>	<u>220,336,395</u>
Total APV	773,455,745	796,785,161
Net Assets Available for Benefits, at Cost (Market Value \$915,569,939; \$1,104,400,941)	<u>905,389,873</u>	<u>979,038,393</u>
Assets Over APV (Excess)	\$(131,934,128)	\$(182,253,232)
Percentage Funded	117.06%	122.87%
Surplus APV as Percent of Payroll	85.00	119.12

## Contributions Required and Contributions Made

The Plan's funding policy provides for an employer contribution which, when added to the amounts contributed by the employees, will be sufficient for the requirements of the Fund. This amount cannot be 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 of the employer contribution, multiplied by 1.37.

The total required annual actuarial contribution to the Fund (financed by the employee and the City) is equal to the current service cost plus interest only on the unfunded liability determined using the entry age normal method. The unfunded liability is recognized but not amortized. The employer contribution required for interest only on the unfunded liability results in a decreasing annual employer cost expressed as a percentage of payroll as future payrolls increase. Since the tax levy is expressed as a multiple of the total salary deductions made two years prior, the City is effectively contributing a level annual percentage of payroll.

## GASB DISCLOSURE

Employer and employee contribution information at December 31 is as follows:

	1995	1994
Contribution multiplier	1.37	1.37
City of Chicago contribution, net of reserve for loss in tax collections	\$18,311,622	\$16,954,372
City of Chicago contribution as a percentage of covered payroll	11.80%	11.52%
Employee contributions	\$14,610,842	\$14,293,250
Employee contributions as a percentage of covered payroll	9.41%	9.72%
Actuarially determined contribution requirement	\$20,451,183	\$21,316,661
Contribution requirement as a percentage of covered payroll	13.18%	14.49%
Current year normal cost	\$20,451,183	\$21,316,661
Normal cost as a percentage of covered payroll	13.18%	14.49%
Interest only on the unfunded liability	\$0	\$0
Interest only on the unfunded liability, % of covered payroll	0.00%	0.00%

For the year 1995 (based on a 1995 multiple of 1.37), the City contributed (after tax levy losses of 4%) \$18,311,622 or 11.80% of payroll. For 1995, the employee contributions were \$14,610,842 or 9.41% of payroll. As the current cost requirement for the entry age normal method plus the requirement for interest only on the unfunded liability was 13.18% of payroll, an excess of 8.03% of payroll or \$12,471,281 was contributed. Such contribution is applied to amortize any unfunded liability.

It is estimated for 1996 that contributions will again more than meet the standard. Consideration should also be given to the decline in membership and the future cash flow requirements of the Fund.

**GASB DISCLOSURE**  
**Annual Actuarial Requirements**  
**Actuarial Recommended Contribution (Employer and Employee)**  
**Normal Cost Plus Various Amortization Methods**

Year	A	B	C	D	A	B	C	D
	Normal Cost	NC Plus Interest	NC Plus ERISA 40-Year Amortization	NC Plus Increasing % of Salary	Expressed as a Percentage of Salary Beginning of Year			
1986 <sup>a,b</sup>	\$19,870,609	\$24,965,655	\$25,330,252	\$22,617,955	15.82%	19.88%	20.17%	18.01%
1987 <sup>a,b</sup>	18,826,921	20,171,065	20,249,927	19,681,589	14.64	15.68	15.75	15.30
1988 <sup>a,b</sup>	20,008,465	22,636,952	22,791,167	21,679,777	14.77	16.71	16.83	16.01
1989 <sup>a</sup>	19,803,585	21,217,142	21,300,076	20,702,389	14.93	15.99	16.05	15.60
1990 <sup>a,b</sup>	17,819,965	17,819,965	17,819,965	17,819,965	12.55	12.55	12.55	12.55
1991 <sup>a,b</sup>	20,777,427	23,048,446	23,158,027	22,235,069	14.27	15.83	15.90	15.27
1992 <sup>b</sup>	21,637,649	22,776,621	22,831,579	22,368,692	14.52	15.28	15.32	15.01
1993	20,261,167	20,261,167	20,261,167	20,261,167	14.31	14.31	14.31	14.31
1994 <sup>b</sup>	21,316,661	21,316,661	21,316,661	21,316,661	14.49	14.49	14.49	14.49
1995	20,451,183	20,451,183	20,451,183	20,451,183	13.18	13.18	13.18	13.18
1996	21,340,898	21,340,898	21,340,898	21,340,898	13.95	13.95	13.95	13.95

**Actual Employer and Employee Contribution**

Year	E	F	E	F
	Employer	Employee	Expressed as a Percentage of Salary Beginning of Year	
1986 <sup>a,b</sup>	\$14,765,250	\$11,691,095	11.76%	9.31%
1987 <sup>a,b</sup>	14,745,709	11,774,209	11.47	9.16
1988 <sup>a,b</sup>	15,157,663	11,740,621	11.19	8.67
1989 <sup>a</sup>	15,257,738	12,529,606	11.50	9.44
1990 <sup>a,b</sup>	17,029,493	12,805,486	11.99	9.02
1991 <sup>a,b</sup>	15,989,678	13,691,711	10.98	9.40
1992 <sup>b</sup>	16,574,721	13,025,003	11.12	8.74
1993	17,734,532	15,345,146	12.52	10.84
1994 <sup>b</sup>	16,954,372	14,293,250	11.52	9.72
1995	18,311,622	14,610,842	11.80	9.41
1996est	19,242,432	13,004,733	12.58	8.50

**Deficiency (Excess) in Annual Contribution**

Year	G	H	I	G	H	I
	NC Plus Interest	NC Plus ERISA 40-Year Amortization	NC Plus Increasing % of Salary	Expressed as a Percentage of Salary Beginning of Year		
1986 <sup>a,b</sup>	\$(1,490,690)	\$(1,126,093)	\$(3,838,390)	(1.19)%	(0.90)%	(3.06)%
1987 <sup>a,b</sup>	(6,348,853)	(6,269,991)	(6,838,329)	(4.94)	(4.88)	(5.32)
1988 <sup>a,b</sup>	(4,261,332)	(4,107,117)	(5,218,507)	(3.15)	(3.03)	(3.85)
1989 <sup>a</sup>	(6,570,202)	(6,487,268)	(7,084,955)	(4.95)	(4.89)	(5.34)
1990 <sup>a,b</sup>	(12,015,014)	(12,015,014)	(12,015,014)	(8.46)	(8.46)	(8.46)
1991 <sup>a,b</sup>	(6,632,943)	(6,523,362)	(7,446,320)	(4.55)	(4.48)	(5.11)
1992 <sup>b</sup>	(6,823,103)	(6,768,145)	(7,231,032)	(4.58)	(4.54)	(4.85)
1993	(12,818,511)	(12,818,511)	(12,818,511)	(9.05)	(9.05)	(9.05)
1994 <sup>b</sup>	(9,930,961)	(9,930,961)	(9,930,961)	(6.75)	(6.75)	(6.75)
1995	(12,471,281)	(12,471,281)	(12,471,281)	(8.03)	(8.03)	(8.03)
1996est	(10,906,267)	(10,906,267)	(10,906,267)	(7.13)	(7.13)	(7.13)

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

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

**GASB DISCLOSURE**  
**History of Retirees and Beneficiaries Added to & Removed from Benefit Payroll**

**Employee Annuitants (Male and Female)**

Yr.	Added to Payroll		Removed from Payroll		Payroll, End of Year		Average Annual Benefits	Increase to Avg. Benefits
	No.	Ann. Benefits	No.	Ann. Benefits	No.	Ann. Benefits		
1980	268	\$1,407,183	123	\$425,259	2,379	\$8,958,700	\$3,766	
1981	240	1,341,271	150	376,891	2,469	9,950,080	4,112	9.2%
1982	182	1,233,344	176	457,708	2,475	10,725,716	4,434	7.8
1983	174	1,308,499	230	483,759	2,419	11,550,456	4,775	7.7
1984	223	2,057,564	173	484,160	2,469	13,123,860	5,315	11.3
1985	170	1,829,800	220	759,172	2,419	14,194,488	5,868	10.4
1986	248	3,008,908	180	465,898	2,487	16,737,498	6,730	14.7
1987	190	3,546,317	179	463,252	2,498	19,820,563	7,934	17.9
1988	154	2,009,373	158	589,873	2,494	21,240,063	8,516	7.3
1989	133	1,660,782	151	527,914	2,476	22,372,931	9,036	6.1
1990	157	3,080,832	152	531,392	2,481	24,922,371	10,045	11.2
1991	170	2,795,428	150	688,716	2,501	27,029,083	10,807	7.6
1992	188	3,197,921	155	867,514	2,534	29,359,490	11,586	7.2
1993	439	9,572,020	171	1,062,719	2,802	37,868,791	13,515	16.6
1994	52	1,676,720	174	1,866,066	2,680	37,679,445	14,059	4.0
1995	106	3,056,851	186	2,264,327	2,600	38,471,969	14,797	5.2

**Widow/Widower Annuitants (Not Including Compensation)**

Yr.	Added to Payroll		Removed from Payroll		Payroll, End of Year		Average Annual Benefits	Incr. to Average Benefits
	No.	Ann. Benefits	No.	Ann. Benefits	No.	Ann. Benefits		
1980	95	\$216,304	46	\$50,598	1,160	\$1,689,076	1,464	
1981	88	178,375	84	98,583	1,164	1,768,868	1,534	4.8%
1982	93	236,034	72	77,159	1,186	1,927,743	1,642	7.0
1983	104	288,113	79	87,119	1,211	2,128,737	1,758	7.1
1984	81	250,957	64	74,700	1,228	2,304,994	1,877	6.8
1985	95	307,723	113	150,198	1,210	2,462,519	2,035	8.4
1986	83	241,415	67	92,512	1,226	2,610,422	2,129	4.6
1987	90	1,140,315 <sup>1</sup>	76	104,939	1,240	3,645,798	2,947	38.4
1988	84	323,567	59	148,700	1,265	3,820,665	3,020	2.5
1989	88	367,359	58	148,734	1,295	4,039,290	3,119	3.3
1990	87	1,419,786 <sup>2</sup>	65	166,685	1,317	5,292,391	4,019	28.9
1991	89	472,698	71	262,135	1,335	5,502,954	4,122	2.6
1992	87	490,172	63	249,698	1,359	5,743,428	4,226	2.5
1993	95	548,635	56	214,308	1,398	6,077,755	4,347	2.9
1994	71	446,490	66	259,554	1,403	6,264,691	4,465	2.7
1995	88	586,632	64	264,921	1,427	6,586,402	4,616	3.4

<sup>1</sup> Includes approximately \$800,000 for cap removal on spouse maximum annuity.

<sup>2</sup> Includes approximately \$900,000 for eliminating 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 and for spouses and widows of employees retiring on or after July 1, 1990 with 20 or more years of service at age 55 or older getting half of the employee's annuity discounted .25% for each month the widow is less than 55.

**GASB DISCLOSURE**  
**Trend Information**

Trend information gives an indication of the progress made in accumulating sufficient assets to pay benefits when due. For 1984 and 1985, the assets were insufficient to cover the pension benefit obligation. For 1986 through 1995, the assets exceeded the amount needed for the pension benefit obligation.

Year	Assets Available for Benefits as a % of Pension Benefit Obligation	Unfunded Pension Benefit Obligation (Surplus) as a % of Covered Payroll	Employer Contributions as a % of Covered Payroll
1984	85.89%	44.65%	11.42%
1985	93.91	21.71	11.45
1986	107.42	(26.28)	11.76
1987	104.78	(18.43)	11.47
1988	107.99	(32.61)	11.19
1989	113.64	(54.61)	11.50
1990	107.86	(34.39)	11.99
1991	110.44	(47.32)	10.98
1992	115.12	(73.96)	11.12
1993	115.18	(78.12)	12.52
1994	117.06	(85.00)	11.52
1995	122.87	(119.12)	11.80

**Employer Contributions**

Year	Required Normal Cost Plus Interest Only Basis	Required Statutory Basis <sup>1</sup>	Actual <sup>2</sup>
1984	\$14,653,668	\$14,972,550	\$14,996,619
1985	15,037,923	14,979,650	15,035,039
1986	14,290,107	14,765,250	14,765,250
1987	9,239,911	14,659,550	14,745,709
1988	11,123,439	14,784,800	15,157,663
1989	9,938,865	14,843,700	15,257,738
1990	5,747,900	14,668,000	17,029,493
1991	10,671,366	15,736,320	15,989,678
1992	10,107,019	16,172,160	16,574,721
1993	8,223,582	17,278,850	17,734,532
1994	8,815,137	16,346,450	16,954,372
1995	7,258,077	17,929,825	18,311,622

<sup>1</sup> Tax levy after 4% overall loss.

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

**GASB DISCLOSURE**  
**Income and Payouts**

Year End	Employee Contributions <sup>1</sup>	Employer Contributions <sup>2</sup>	Investment Income <sup>3</sup>	Total Income
1977	\$8,568,248	\$8,470,000	\$11,993,200	\$29,031,448
1978	9,077,825	9,477,125	10,112,216	28,667,166
1979	9,571,764	11,108,298	13,547,589	34,227,651
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 <sup>7</sup>	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

Year End	Administrative and Investment			Total	Income Less Pay Outs <sup>4</sup>
	Benefits	Expenses	Refunds <sup>6</sup>		
1977	\$8,704,971	\$316,160	\$1,798,049	\$10,819,180	\$18,212,268
1978	9,764,039	350,648	2,339,764	12,454,451	16,212,715
1979	10,795,166	438,914	2,821,593	14,055,673	20,171,977
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	27,701,584	57,039,258
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 <sup>5</sup>
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	3,201,076	55,765,938	73,648,520

Statistical material required by Government Accounting Standards Board

<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 loss on sale and exchange of bonds.

<sup>4</sup> Does not include prior year adjustments for taxes for years before 1991.

<sup>5</sup> Does not include adjustment for payables and receivables.

<sup>6</sup> Includes adjustments for payables and receivables beginning in 1991.

<sup>7</sup> Includes ERI contributions accrued.

## GASB DISCLOSURE

## Prioritized Solvency Test

The prioritized solvency test is another means of checking a system's progress under its funding program, based on the actuarial present value of credited projected benefits. 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 present value of credited projected benefits for present active members. In a system that has been following the discipline of level percent of payroll 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 present value of credited projected benefits for present active members (present value 3) will be partially covered by the remainder of present assets. Generally, if the system has been using level cost financing, the funded portion of present value 3 will increase over time.

The schedule below illustrates the history of the obligations of the system.

Actuarial Present Value of Credited Projected Benefits (\$ in Millions)							
Valuation Date 12/31	(1)	(2)	(3)	Valuation Assets	Portion (%) of Present Value Covered by Assets		
	Active Member Contributions	Retirees and Beneficiaries	Active Members (ER Financed Portion)		(1)	(2)	(3)
1985 <sup>a, b</sup>	\$117.9	\$158.5	\$171.4	\$420.6	100	100	84.1
1986 <sup>a, b</sup>	122.4	179.9	197.1	489.4	100	100	94.9
1987 <sup>a, b</sup>	126.6	215.5	179.9	546.9	100	100	100.0
1988	133.8	229.0	178.8	584.9	100	100	100.0
1989 <sup>a, b</sup>	143.4	241.5	183.8	646.3	100	100	100.0
1990 <sup>a, b</sup>	150.4	271.4	215.2	687.1	100	100	100.0
1991 <sup>b</sup>	156.6	291.8	227.3	746.3	100	100	100.0
1992	161.3	311.6	220.0	797.6	100	100	100.0
1993 <sup>b</sup>	152.1	403.6	201.4	871.9	100	100	100.0
1994	166.2	395.7	211.6	905.4	100	100	100.0
1995	175.4	401.0	220.3	979.0	100	100	100.0

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

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

## GASB DISCLOSURE

Analysis of Funding Progress<sup>1</sup>

Year	Net Assets Available for Benefit (Book)	Pension Benefit Obligation	Percentage Funded	Unfunded (Surplus) Pension Benefit Obligation	Annual Covered Payroll	Unfunded (Surplus) as a % of Covered Payroll
1984	\$356,809,111	\$415,442,598	85.89%	\$ 58,633,487	\$131,327,856	44%
1985 <sup>a, b</sup>	420,554,173	447,815,793	93.91	27,261,620	125,594,688	21
1986 <sup>a, b</sup>	489,403,006	455,604,084	107.42	(33,798,922)	128,601,816	(26)
1987 <sup>a, b</sup>	546,947,052	521,981,791	104.78	(24,965,261)	135,453,096	(18)
1988 <sup>a</sup>	584,899,234	541,629,895	107.99	(43,269,339)	132,685,608	(33)
1989 <sup>a, b</sup>	646,313,443	568,750,487	113.64	(77,562,956)	142,024,296	(55)
1990 <sup>a, b</sup>	687,103,206	637,028,116	107.86	(50,075,090)	145,612,704	(34)
1991 <sup>b</sup>	746,260,921	675,731,003	110.44	(70,529,918)	149,054,136	(47)
1992	797,641,186	692,900,657	115.12	(104,740,529)	141,618,648	(74)
1993 <sup>b</sup>	871,897,213	757,005,456	115.18	(114,891,757)	147,076,752	(78)
1994	905,389,873	773,455,745	117.06	(131,934,128)	155,213,016	(85)
1995	979,038,393	796,785,161	122.87	(182,253,232)	152,996,856	(119)

Analysis of the dollar amounts of net assets available for benefits, pension benefit obligation, and unfunded pension benefit obligation in isolation can be misleading. Expressing the net assets available for benefits as a percentage of the pension benefit obligation provides one indication of funding status on a going-concern basis. Analysis of this percentage over time indicates whether the system is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the system. Trends in unfunded pension benefit obligation and annual covered payroll are both affected by inflation. Expressing the unfunded pension benefit obligation as a percentage of annual covered payroll approximately adjusts for the effects of inflation and aids analysis of progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the retirement system.

<sup>1</sup> The disclosure made in this exhibit does not include other appropriate measures of funding progress which must also be examined to obtain the complete picture.

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

<sup>b</sup> Change in benefits

## 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 **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**.

An amount of money is required each year to keep the **unfunded liability** from increasing if all assumptions are realized. This amount is called **interest only** on the **unfunded liability**.

The required total actuarial contribution to the fund is equal to the **current service costs** plus **interest only** on the **unfunded liability**. If there is a surplus rather than an unfunded liability, the required total actuarial contribution to the Fund is equal to the current service cost only. This is the funding policy. This minimum method of funding, often referred to as the middle of the road method, is the method the fund has tried to follow in the past. It has evolved over the years and seeks to satisfy the ideologies of all interested groups, including opinions often expressed by the Civic Federation. No funds are provided for amortization of the **unfunded liability**.

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

**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: UP-1984 Mortality Table, male and female.

**Interest:** 8% a year (net of investment expense), compounded annually. An exhibit details the investment yields the Fund actually realized over the past few years. This assumption contains a 4% inflation assumption and a 4% real rate of return assumption.

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 the current low interest rates will continue over this period.

**Salary Increase:** 6% a year, compounded annually. An exhibit details the annual increase in the average salary over the past years, which averages greater than 6%. This assumption contains a 4% inflation assumption and a 2% merit and longevity assumption.

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 increased.

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 an exhibit grouped by age of entrance into the service and are based on 1985, 1986, and 1987 experience of this Fund for males and on experience of the Municipal Fund for females. These rates have been adjusted to reflect anticipated earlier retirements for employees under age 60 with at least 30 years of service.

**Rates of Termination:** These rates are shown in an exhibit and are based on the experience of the Fund.

**Proportion Married:** This is shown in an exhibit.

**Active Membership:** It is assumed that the future active membership of the Fund will remain at the present level and that the average age at entrance into the service will be about the same in the future as it has been in the past. 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:** Bonds are at amortized value, stocks are at cost, real estate separate accounts are at adjusted cost.

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

**Loss on Tax Levy:** 4% overall is assumed for all future years.

**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 widows). The amount of the Fund paid health insurance from January 1, 1993 until December 31, 1997 is \$75.00 per month for each annuitant (employees and widows) 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 widows of retirees are assumed to be eligible for Medicare. All active employees upon their retirement and their widows upon employee's death are assumed to receive the health care supplement.

**Required Tax Multiple:** It 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

Male

Attained Age	Age at Entrance									
	22	27	32	37	42	47	52	57	62	67
55	0.30	0.03	0.01							
56	0.30	0.04	0.01							
57	0.30	0.30	0.02	0.07	0.01					
58	0.30	0.20	0.02	0.02	0.01					
59	0.35	0.20	0.03	0.04	0.01					
60	0.50	0.20	0.09	0.10	0.04	0.02	0.02	0.02		
61	0.50	0.22	0.09	0.12	0.04	0.02	0.02	0.05		
62	0.50	0.25	0.15	0.33	0.07	0.03	0.03	0.10		
63	0.75	0.30	0.24	0.40	0.09	0.05	0.03	0.10	0.02	
64	0.75	0.35	0.28	0.45	0.11	0.06	0.05	0.15	0.05	
65	1.00	0.50	0.40	0.65	0.08	0.08	0.30	0.20	0.10	
66		0.75	0.45	0.65	0.42	0.13	0.15	0.20	0.15	
67		1.00	0.50	0.70	0.46	0.22	0.20	0.50	0.20	
68			0.75	0.75	0.50	0.50	0.50	0.50	0.50	
69			0.75	0.75	0.75	0.75	0.75	0.75	0.75	
70			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Female

55	0.25	0.05	0.04							
56	0.25	0.07	0.04							
57	0.35	0.30	0.05	0.01	0.01	0.01				
58	0.10	0.20	0.06	0.02	0.01	0.01				
59	0.25	0.20	0.08	0.03	0.01	0.01				
60	0.40	0.28	0.12	0.10	0.02	0.02	0.02	0.02		
61	0.50	0.30	0.15	0.13	0.04	0.02	0.03	0.03		
62	0.50	0.33	0.30	0.14	0.08	0.03	0.03	0.03		
63	0.75	0.50	0.33	0.15	0.09	0.03	0.04	0.03	0.02	
64	0.75	0.50	0.22	0.15	0.10	0.03	0.05	0.04	0.04	
65	1.00	0.75	0.24	0.42	0.25	0.13	0.05	0.06	0.15	
66		0.75	0.27	0.20	0.27	0.15	0.06	0.08	0.18	
67		1.00	0.30	0.30	0.33	0.25	0.07	0.12	0.22	
68			0.50	0.50	0.50	0.50	0.50	0.50	0.50	
69			0.75	0.75	0.75	0.75	0.75	0.75	0.75	
70			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Expected Average Age of Retirement

Present Membership	60.53
New Hires	62.00

**SERVICE TABLE FUNCTIONS**

**Rates of Termination**

**Male**

Attained Age	Age at Entrance								
	22	27	32	37	42	47	52	57	62
22	0.223								
27	0.116	0.262							
32	0.050	0.100	0.219						
37	0.021	0.046	0.098	0.221					
42	0.012	0.025	0.022	0.088	0.176				
47	0.005	0.012	0.010	0.034	0.080	0.142			
52		0.005	0.005	0.017	0.028	0.076	0.120		
57							0.046	0.112	
62									0.148
67									

**Female**

22	0.140								
27	0.108	0.174							
32	0.052	0.085	0.108						
37	0.022	0.038	0.062	0.074					
42	0.008	0.022	0.033	0.051	0.054				
47		0.013	0.017	0.028	0.033	0.063			
52		0.005	0.009	0.015	0.020	0.033	0.054		
57							0.036		
62								0.027	
67									

Attained Age	Male Death Rate UP-1984 Per Thousand	Female Death Rate UP-1984 Per Thousand	Proportion Married Percent
22	1.167	1.385	81%
27	1.058	1.167	81
32	1.208	1.058	81
37	1.792	1.208	80
42	2.818	1.792	83
47	4.635	2.818	83
52	7.543	4.635	84
57	11.863	7.543	82
62	18.685	11.863	80
67	29.634	18.685	78
70	37.667	24.847	74

## 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 and the Municipal Fund with adjustments for expected changes in the future. The pre-retirement and post-retirement mortality are based on a published table, the UP-84 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	Mortality			Retirement	Withdrawal
	Active	Retired	Widow		
1979	1.35	1.54	1.54	1.25	1.37
1980	1.57	1.06	1.21	1.46	2.63
1981	1.47	1.25	2.06	1.38	2.11
1982	1.00	1.41	1.72	.95 <sup>1</sup>	1.08
1983	.98 <sup>2</sup>	1.49 <sup>2</sup>	1.66 <sup>2</sup>	.99	1.02
1984	.69	1.45	1.63	1.27	1.23
1985	1.52	1.65	2.70	.98	1.32
1986	.88	1.52	1.70	1.44	1.43
1987	1.90	1.45	1.87	1.11	.63
1988	1.34	1.26	1.37	.75 <sup>1</sup>	.68
1989	1.31	1.21	1.29	.64	.67
1990	1.47	1.23	1.48	.73	.49
1991	.92	1.31	1.52	.87 <sup>1</sup>	.64
1992	1.27	1.19	1.23	1.17	.79
1993	1.22	1.27	1.06	2.61 <sup>3</sup>	.70
1994	1.36	1.23	1.13	.51	.44
1995	1.32	1.33	1.06	1.22	.54

<sup>1</sup> New retirement rates.

<sup>2</sup> New mortality rates.

<sup>3</sup> Early Retirement Incentive.

**ACTUARIAL EXPERIENCE**

**Attained Age at Retirement, 1995**

Age	<u>Age at Entrance - Male</u>										Total
	22	27	32	37	42	47	52	57	62	67	
55	11	5	1								17
56	2	3									5
57	2										2
58	3		1								4
59	1	2			1						4
60	1					1	1				3
61	2	2	2	1							7
62	1	1	1					1			4
63	1			1	1						3
64			2	2	2						6
65		3	1	1	3	1					9
66		2			1						3
67				2			1				3
68				3		1					4
69						2					2
Total	24	18	8	10	8	5	3	0	0	0	76

11 male employees retired before age 55 or after age 70 in 1995.

Age	<u>Age at Entrance - Female</u>										Total
	22	27	32	37	42	47	52	57	62	67	
55											0
56											0
57											0
58											0
59											0
60											0
61			1	1							2
62											0
63											0
64							1				1
65		1	1	2							4
66			2								2
67				2							2
68											0
69				1							1
70					1						1
Total	0	1	4	6	1	0	1	0	0	0	13

6 female employees retired before age 55 or after age 70 in 1995.

## IMPACT STATEMENT

**Fund Laborers'**

Annual Payroll	\$152,996,856
Active Members	3,832
Valuation Date	December 31, 1995

**Present Plan**

(1) Accrued Pension Liability	\$890,375,387
(2) Present Assets	979,038,393
(3) Unfunded Liability = (1) - (2)	(88,663,006)
(4) Funded Ratio = (2)/(1)	109.96%

**Direction of Financial Condition**

		Per Active	Percent of Salary
(5) Minimum Recommended Annual Contribution	\$21,340,898	5,569	13.95%
(6) Estimated Annual Employer Contribution	19,242,432	5,021	12.58
(7) Estimated Annual Employee Contribution	13,004,733	3,394	8.50
(8) Deficiency (Excess) in Annual Contributions = (5) - (6) - (7)	(10,906,267)	(2,846)	(7.13)

## 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 over 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; (c) resigning at the time of disability credit expiration.

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

- a. An employee age 55 or older withdrawing on or after July 1, 1990, with at least 20 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 30 years of service. 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.

## PLAN SUMMARY

- c. The employee will receive a minimum annuity of \$350 per month if the employee retires at age 60 or more with at least 10 years of service on or after January 1, 1991.

**Reversionary Annuity:** An employee may elect to reduce his or her annuity by an amount less than or equal to \$200 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 80% 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.

**Spouse's 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.

## PLAN SUMMARY

**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. This annuity is subject to a maximum of \$500 if employee's death occurred before January 23, 1987. 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. For deaths on or after January 23, 1987 there is no maximum dollar amount of spouse annuity.

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, 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.

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 \$300 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, 1991.

### 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 \$120 per month while spouse of deceased employee is alive and \$150 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.

## PLAN SUMMARY

**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.

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.

## PLAN SUMMARY

### 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 December 31, 1997.

### 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 yet not been paid out as annuity, are refundable to his estate with interest to his retirement or death if he died in service.

### 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

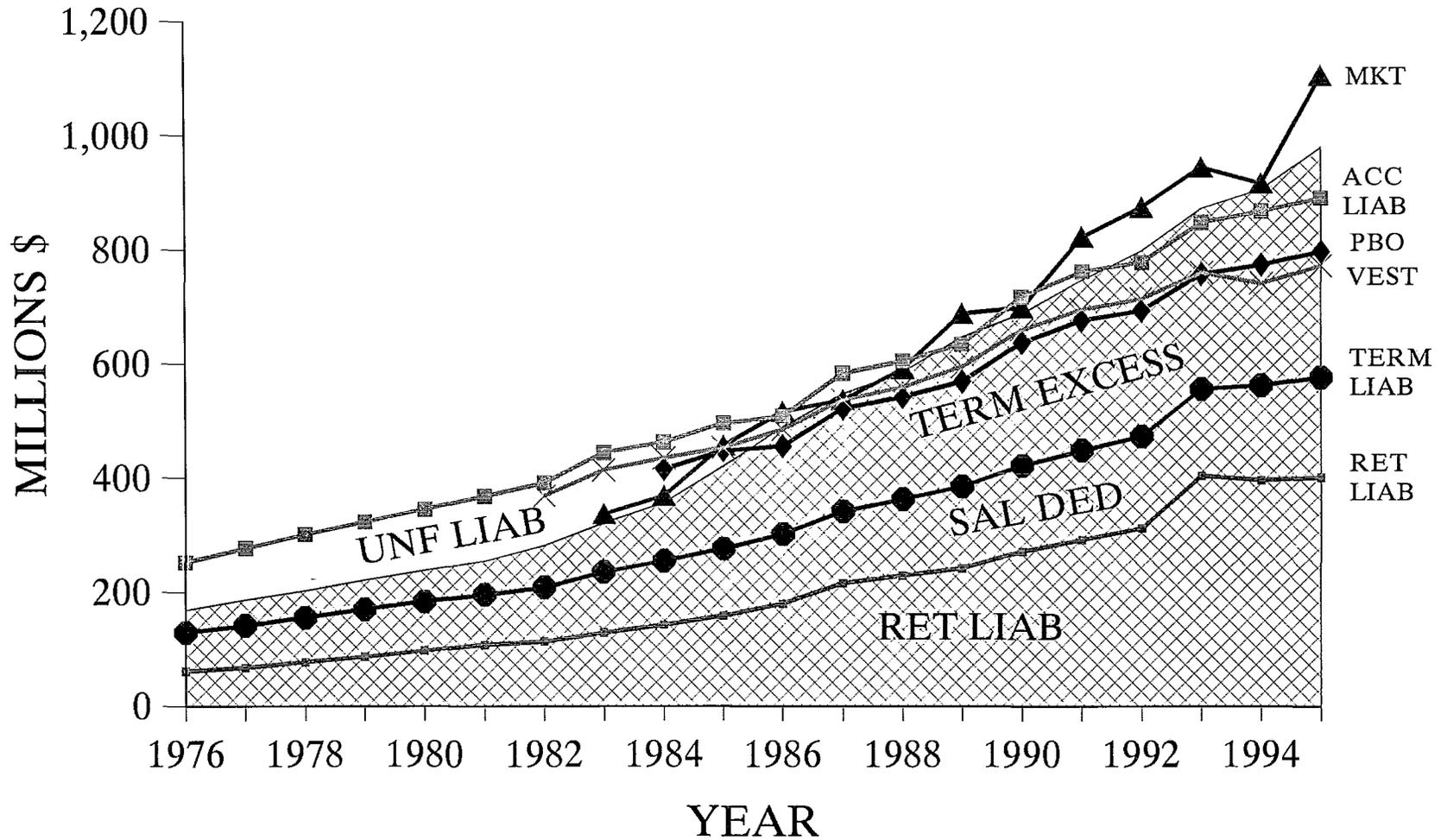
The City shall levy a tax annually equal to the total amount of contributions in the 2 years prior, multiplied by 1.370 for 1978 and each year thereafter.

## PLAN SUMMARY

**Tax Shelter of Employee Salary Deductions**

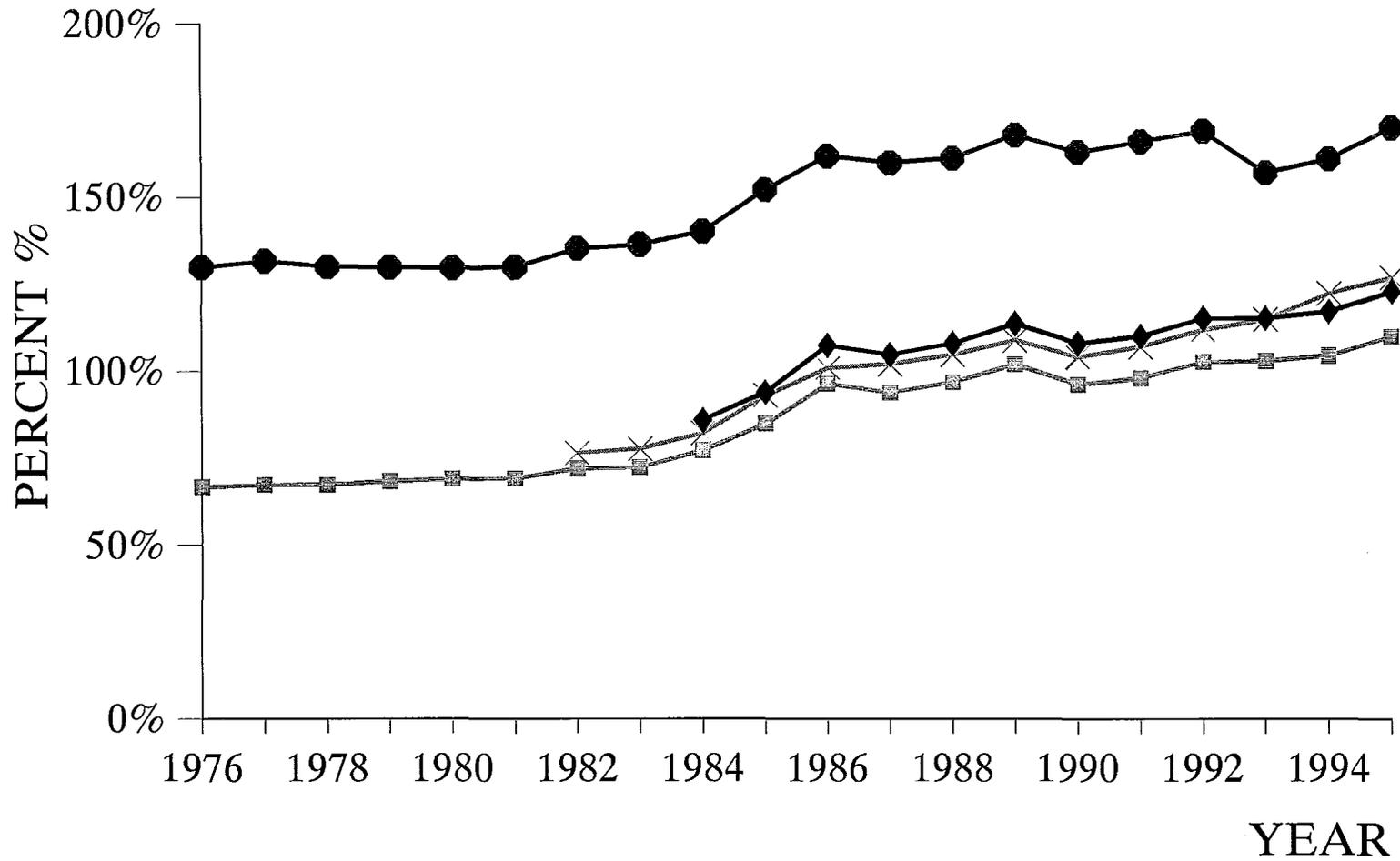
Beginning January 1, 1982, the City employee salary deductions were designated for income tax purposes to be made by the employer. The W-2 salary is therefore reduced by the amount of contribution. For pension purposes the salary remains unchanged. Income tax will be paid when a refund or annuity is 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.

# ASSETS AND LIABILITIES

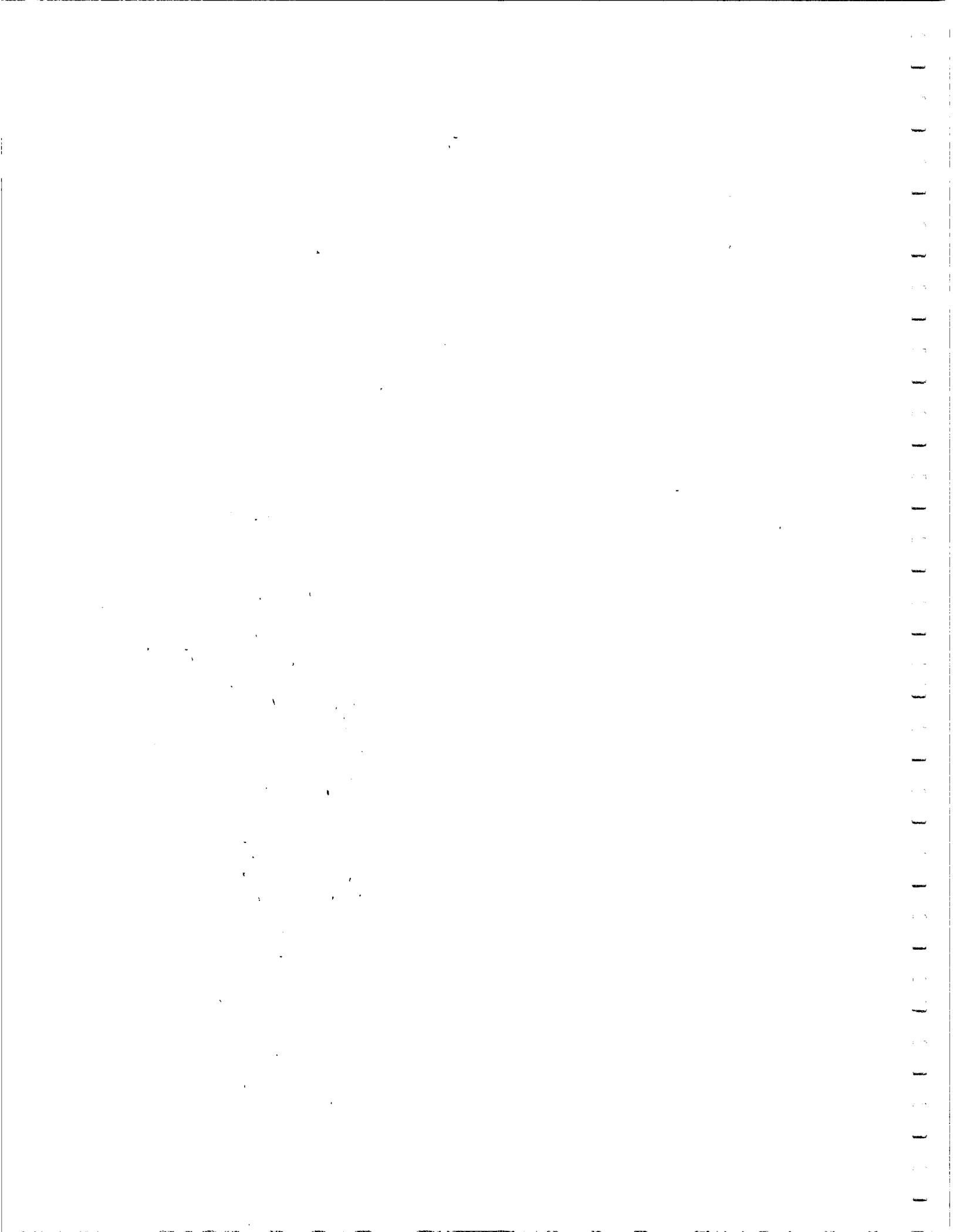


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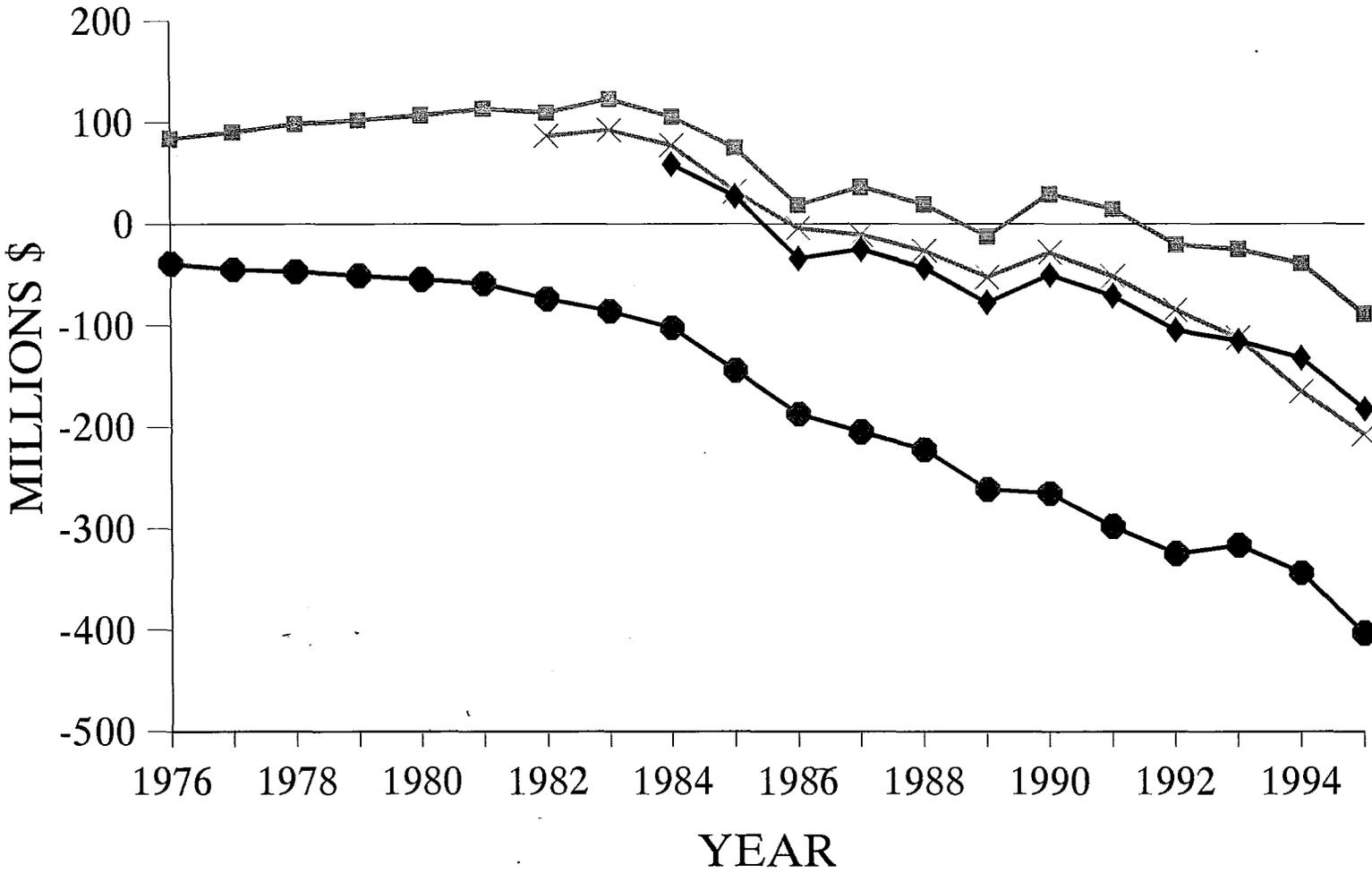
# FUNDED RATIOS



■ ACCRUED ◆ PBO ✕ VESTED ● TERMINATION



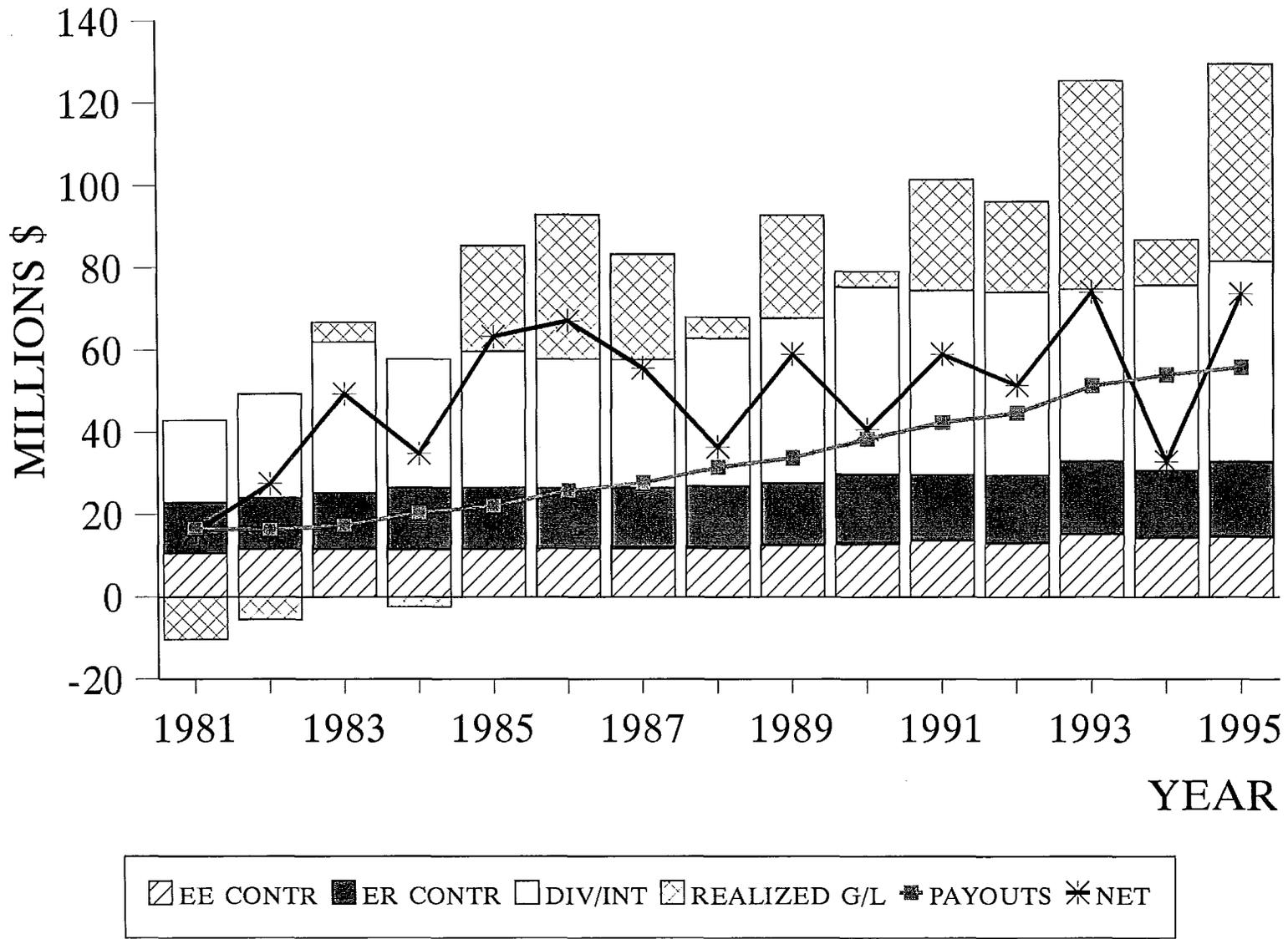
# UNFUNDED LIABILITY



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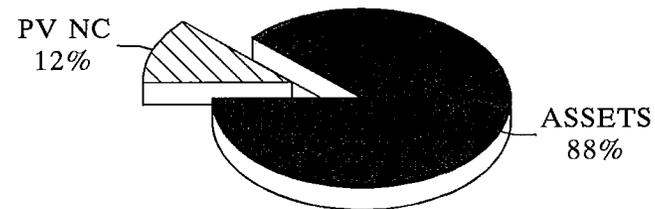
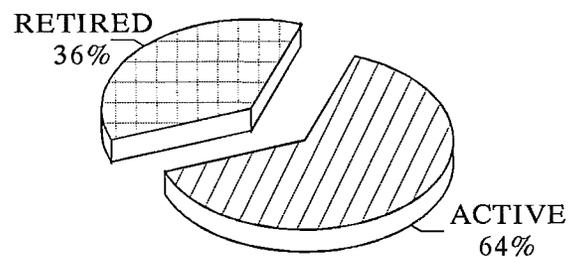


# INCOME AND PAYOUTS



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### ACTUARIAL ASSETS 1995

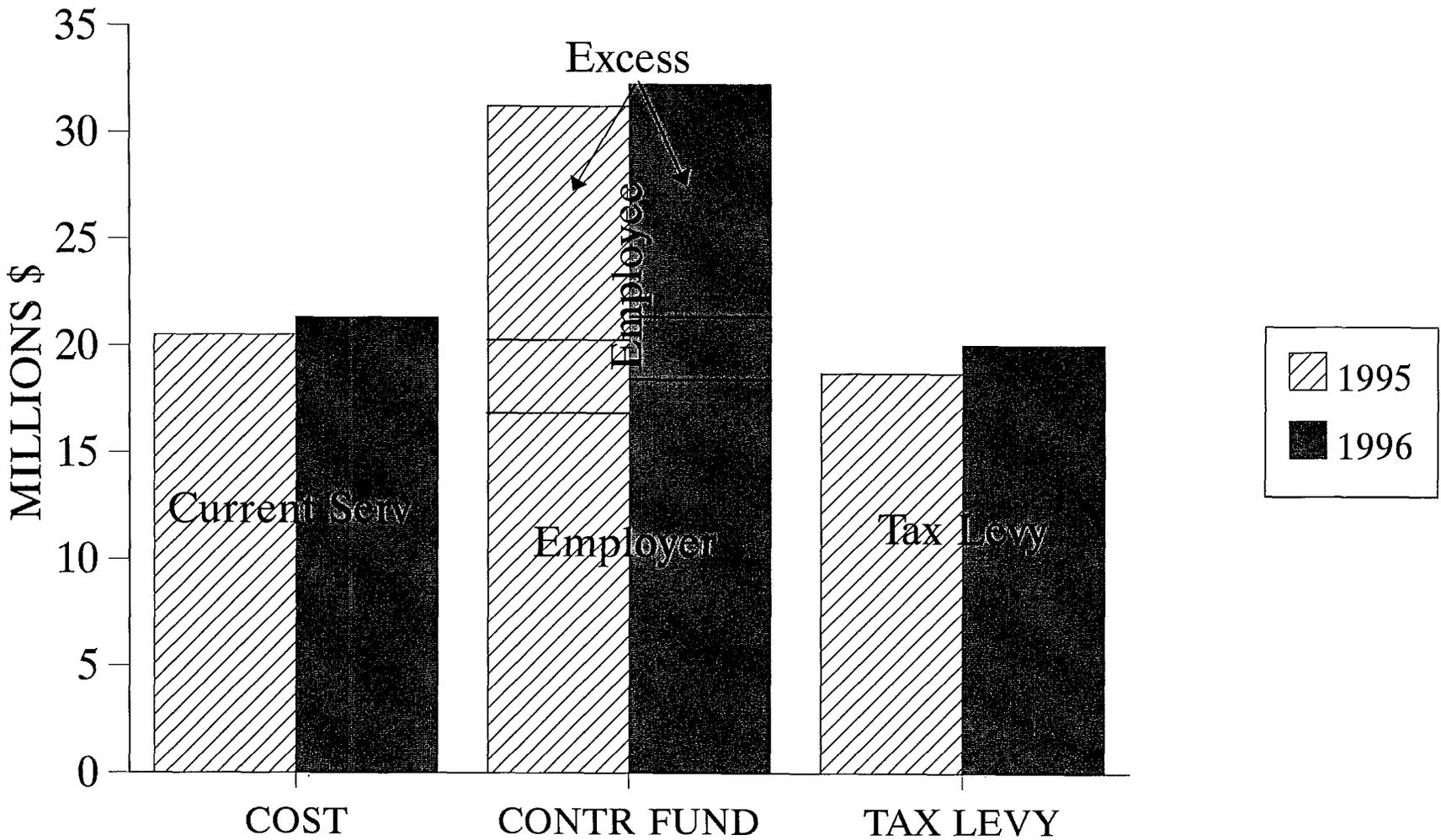


### ACTUARIAL PRESENT VALUE OF BENEFITS 1995

### ACTUARIAL COST METHOD 1995

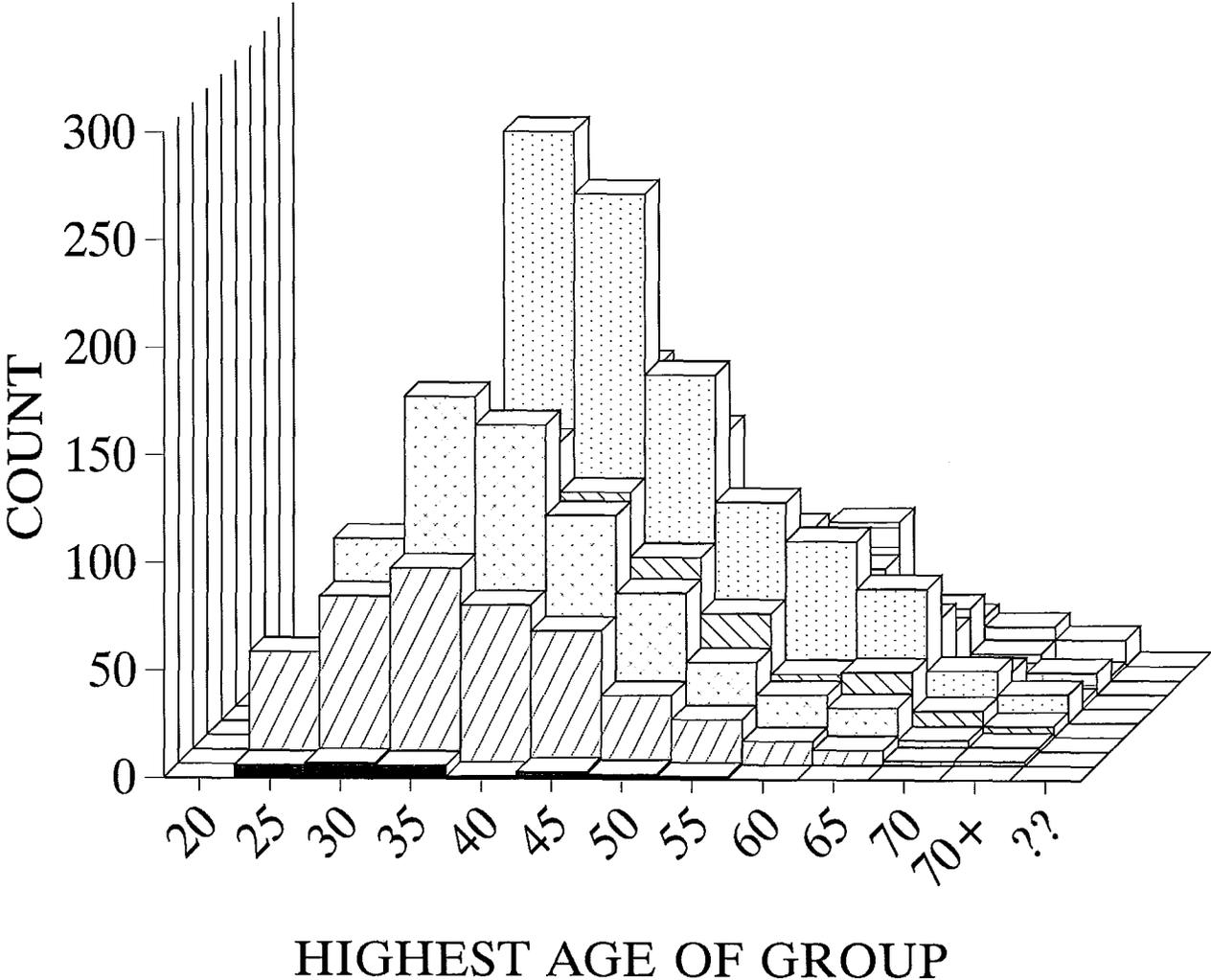
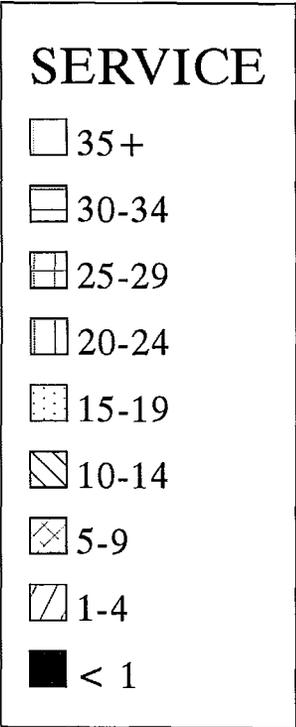


# ANNUAL ACTUARIAL COST (Normal Cost plus Interest Only)



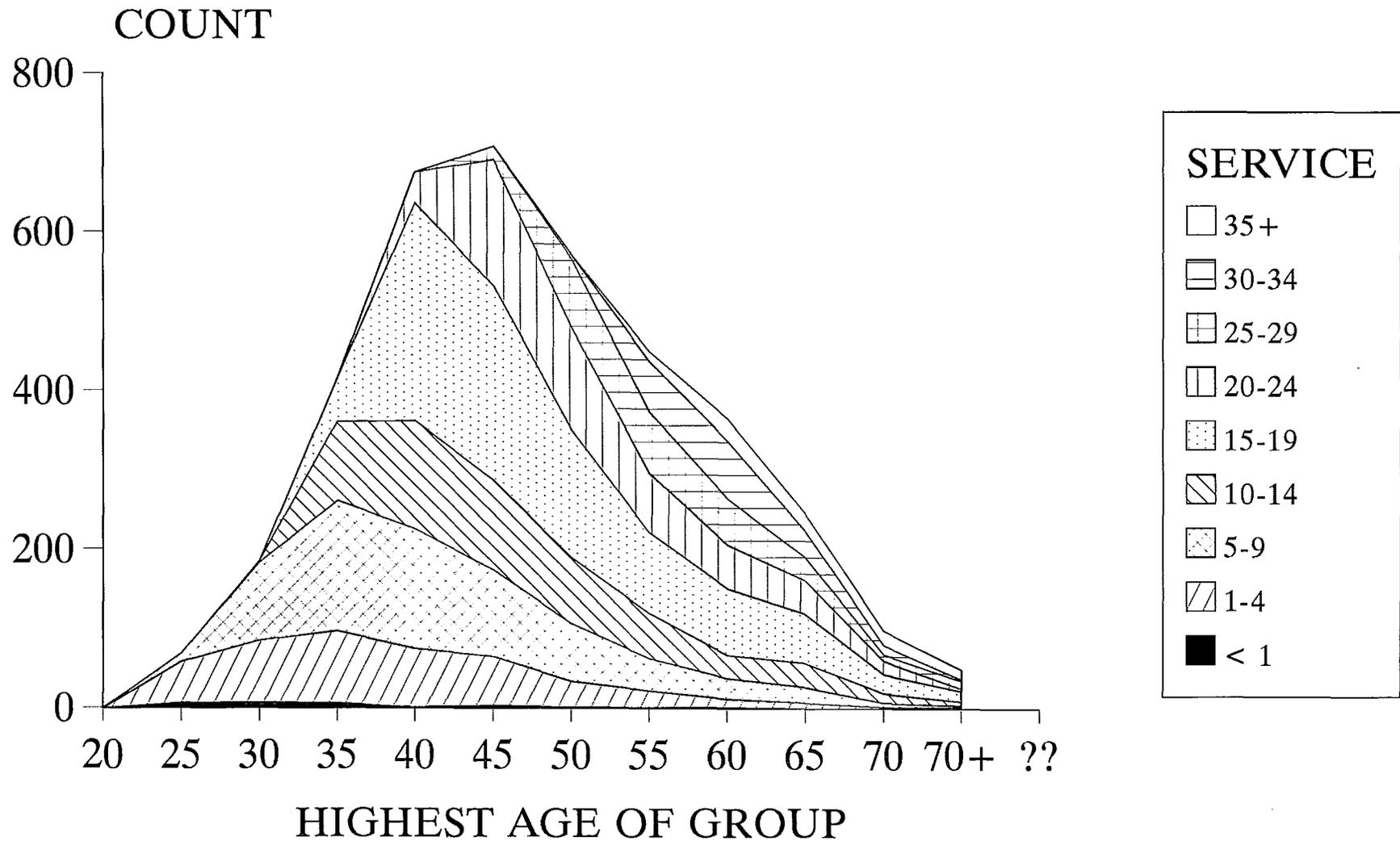
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# EMPLOYEES BY AGE AND SERVICE 1995



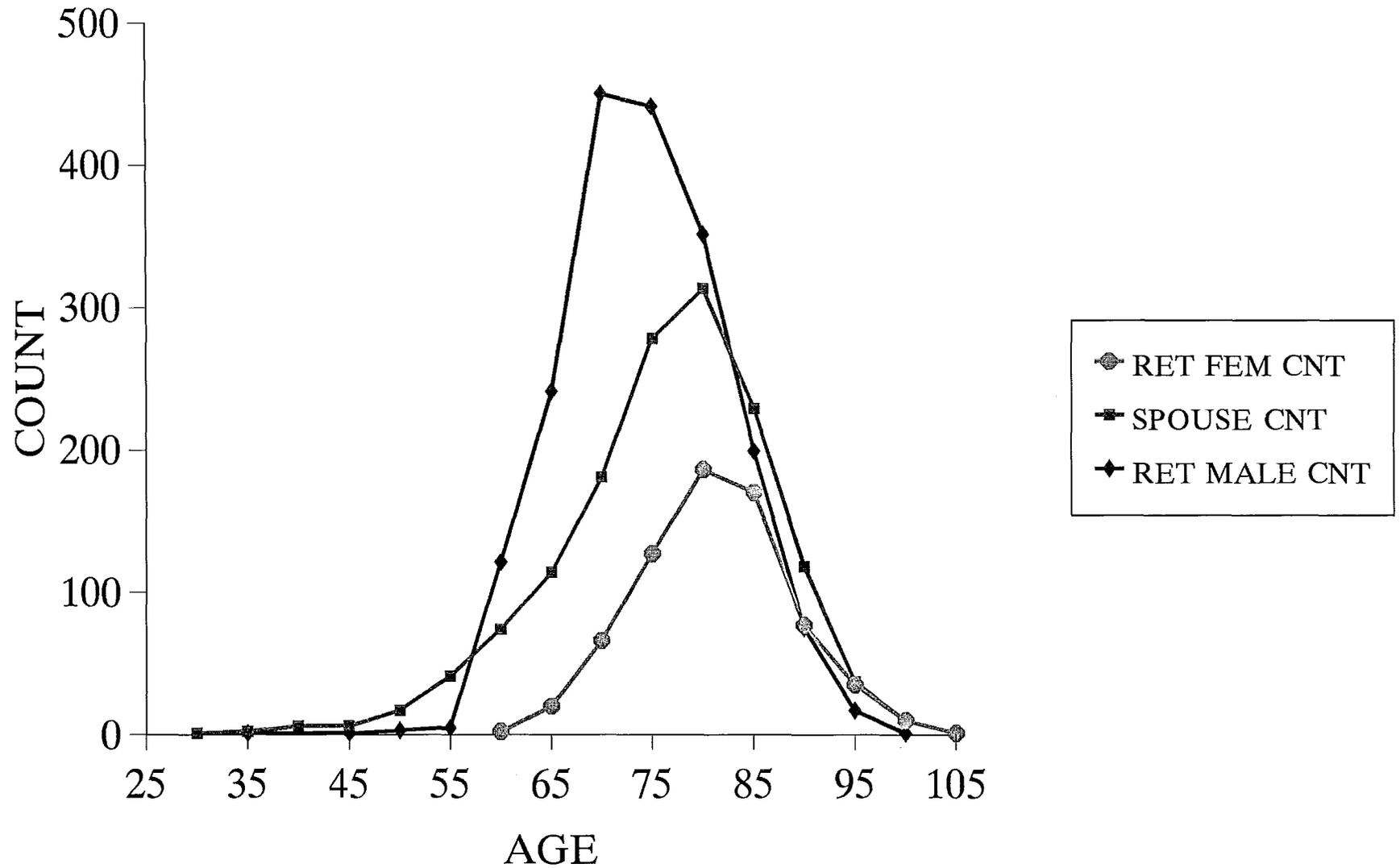


# EMPLOYEES BY AGE AND SERVICE 1995



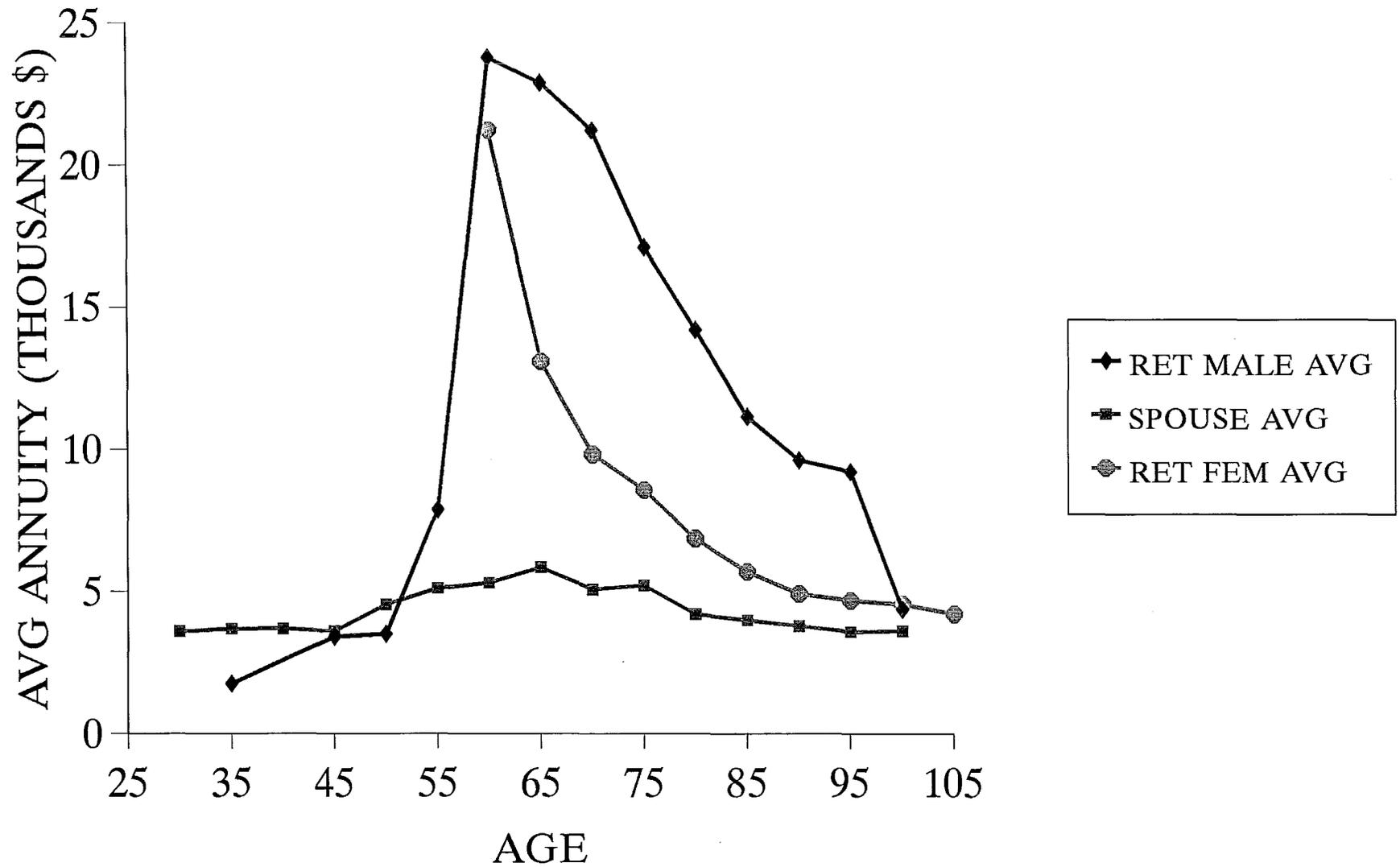
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# ANNUITANTS BY AGE 1995



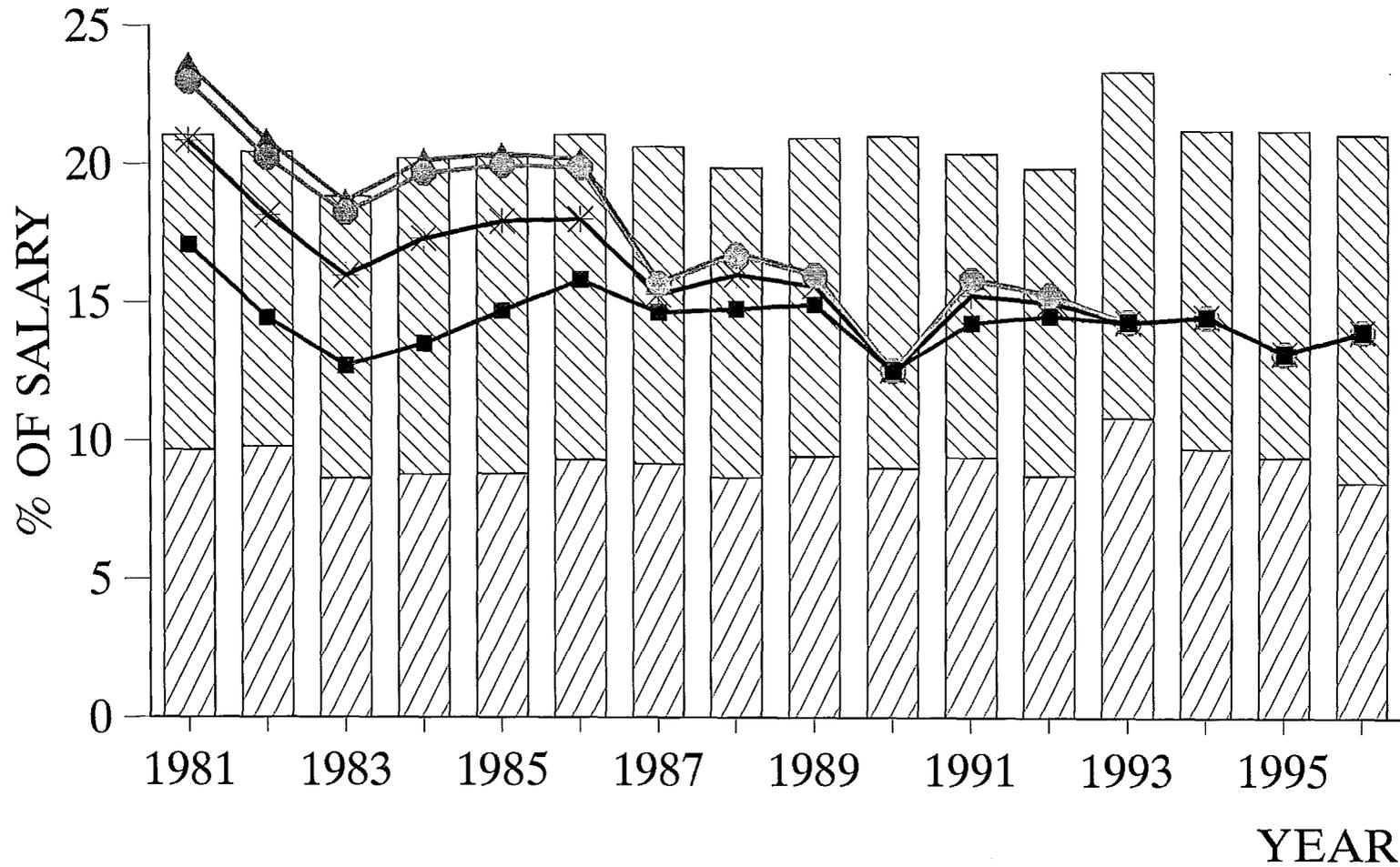
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# ANNUITANTS BY AGE 1995



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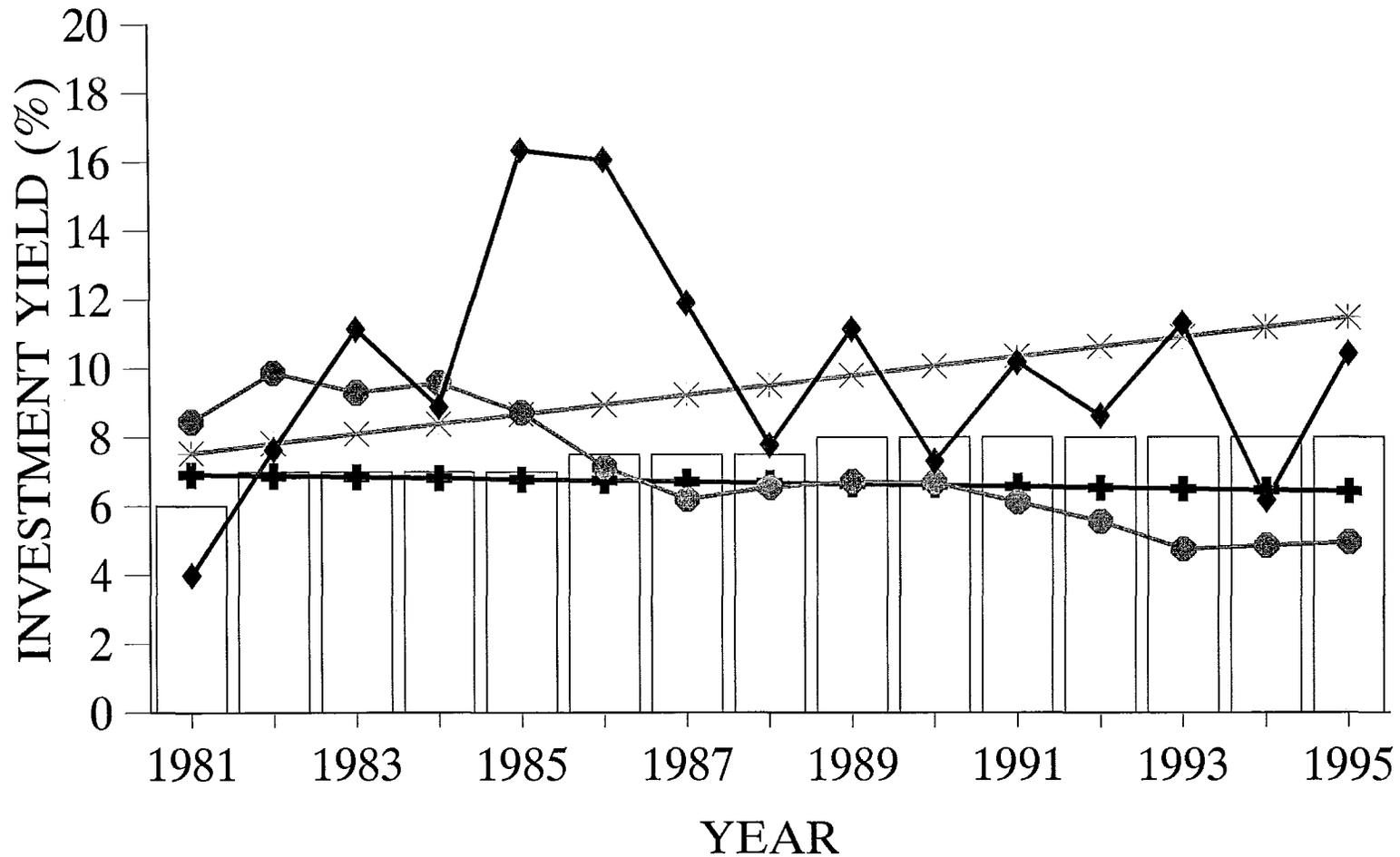
# ACTUARIAL COST



EE
  ER
  NC
  NC+INT
  NC+40 YRS
  NC+SS



# YIELD ON TOTAL ASSETS (BOOK)

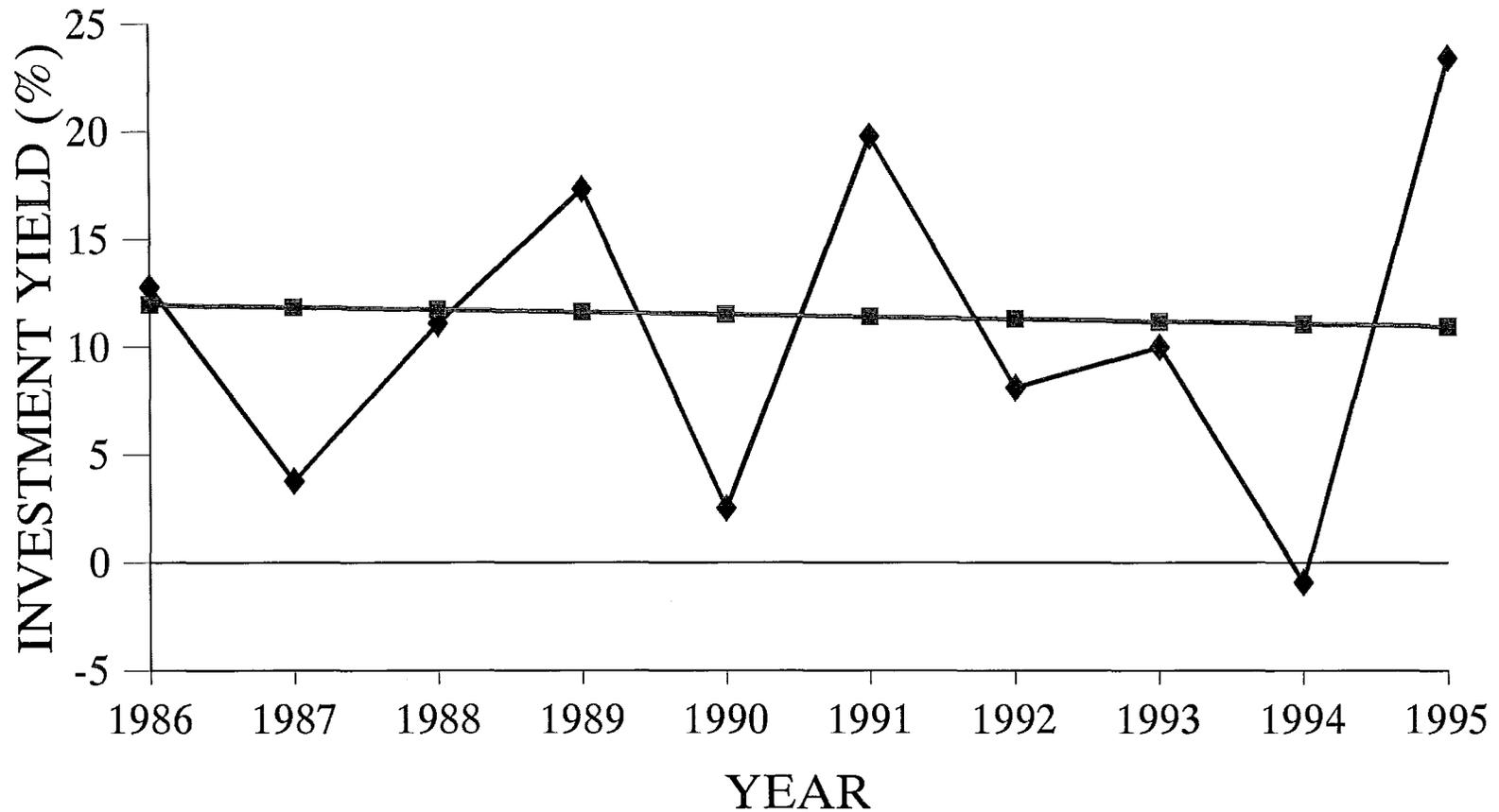


◆ INCL G/L \* INCL;  $Y = .2811X + 4.4471$  ● EXCL G/L + EXCL;  $Y = -.035X + 7.2957$  □ ACT ASSUMPTION

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# MARKET YIELD

## INVESTED ASSETS NET OF INVESTMENT EXPENSE



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# BOOK VS. MARKET

## INVESTMENT INCOME NET OF EXPENSE

