

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

ACTUARIAL STATEMENT

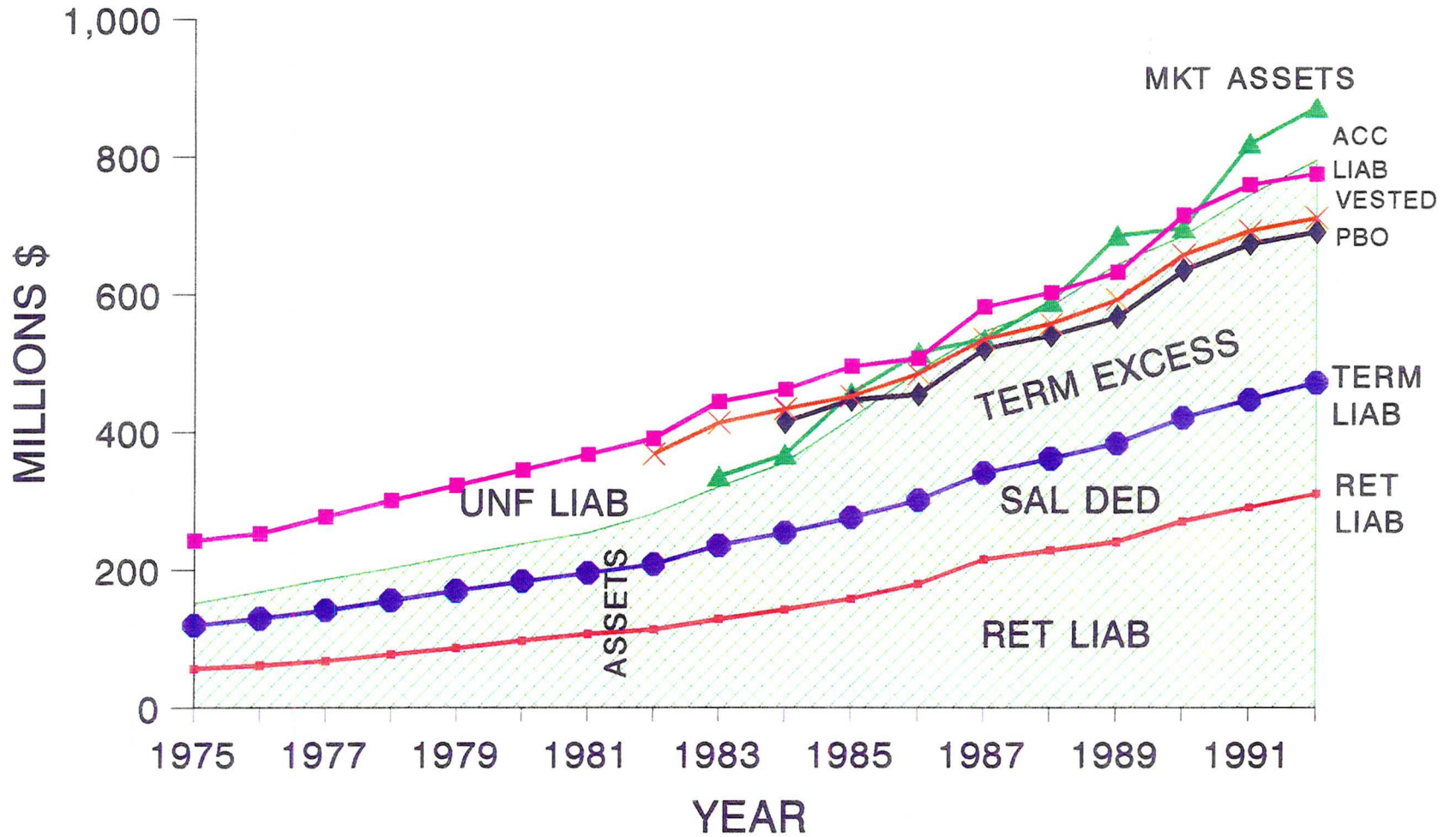
December 31, 1992

Prepared by

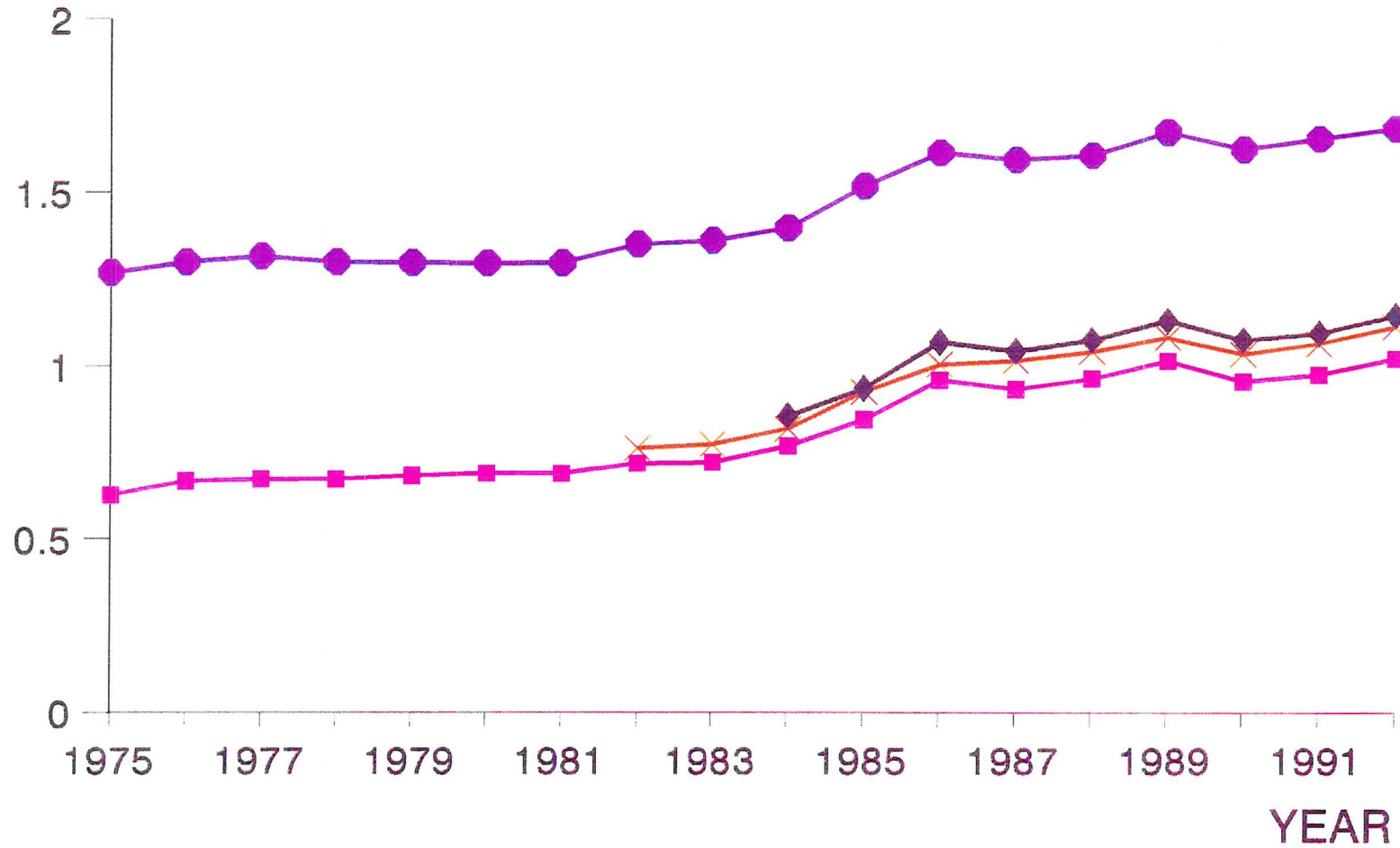
**Donald F. Campbell
Consulting Actuaries**

SUMMARY	1991	1992
Income		
Investment	\$ 71,677,465	\$ 66,508,987
Employer and Miscellaneous	15,989,678	16,574,721
Employee	13,691,711	13,025,003
Total	101,358,854	96,108,711
Outgo		
Refunds, Benefits, Expenses	42,201,139	44,728,446
Excess of Income Over Outgo	59,157,715	51,380,265
Active Participants	4,304	4,022
Inactive Participants	1,672	1,570
Beneficiaries		
Employee	2,501	2,534
Spouse	1,336	1,360
Disabilities	218	226
Children	88	88
Actuarial Funding - Going Concern		
Liability	\$761,056,602	\$777,385,162
Assets, Book Value	746,260,921	797,641,186
Unfunded Liability (Surplus)	14,795,681	(20,256,024)
Funded Ratio	98.06%	102.61%
Actuarial Requirement (ER and EE)	\$ 22,776,621	\$ 20,261,167
Deficiency (Excess) in Annual Contribution	(6,065,141)	(9,101,538)
Required Employer Multiple	.93	.80
(Normal Cost Plus Interest)		
Amortization Period	3 years	N/A
Termination		
Liability	\$448,407,303	\$472,941,676
Cost (Excess) on Termination	(297,853,618)	(324,699,510)
Quick Ratio	166%	169%
Vested - Termination		
Liability	\$694,461,459	\$712,967,572
Unfunded Liability (Surplus)	(51,799,462)	(84,673,614)
Funded Ratio	107.46%	111.88%
GASB - Going Concern		
Liability - APV Credited Projected	\$675,731,003	\$692,900,657
Unfunded Liability (Surplus)	(70,529,918)	(104,740,529)
Funded Ratio	110.44%	115.12%
Investment		
Invested Assets (Book Value)	\$727,371,819	\$782,874,358
Invested Assets (Market Value)	802,591,106	859,004,851
Miscellaneous		
Salary Roll	\$149,054,136	\$141,618,648
Average Salary	34,632	35,211

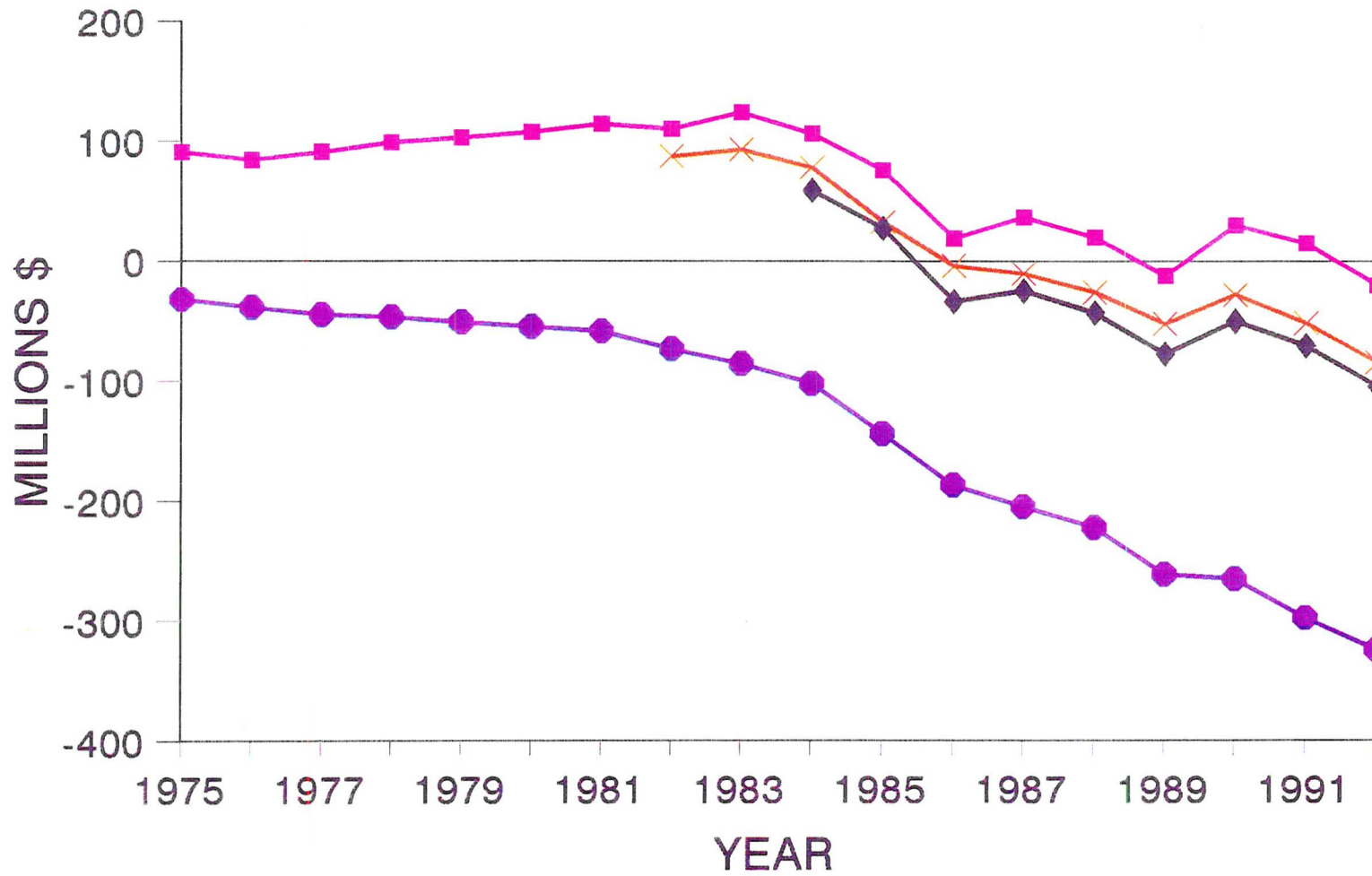
ASSETS AND LIABILITIES



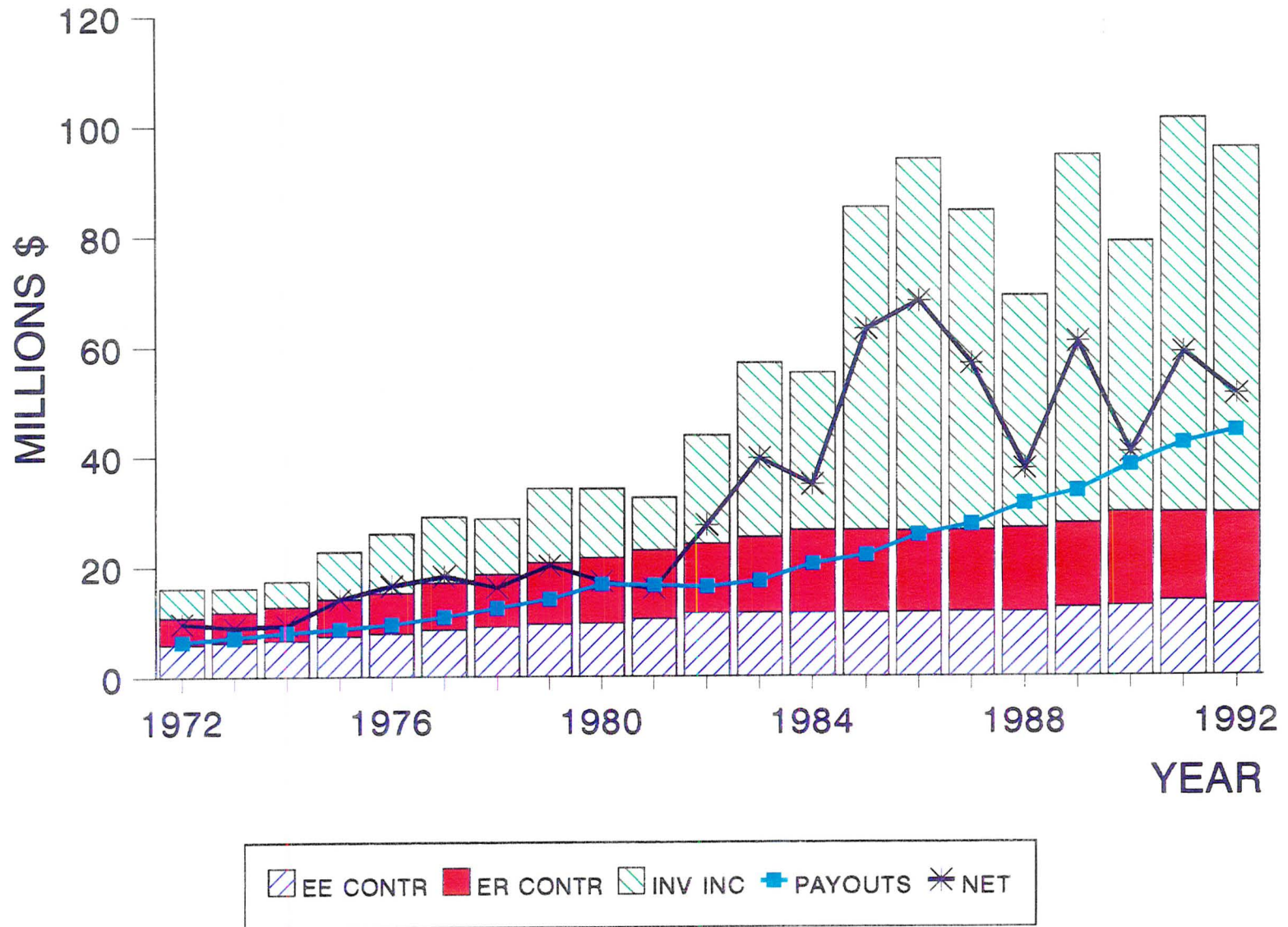
FUNDED RATIOS



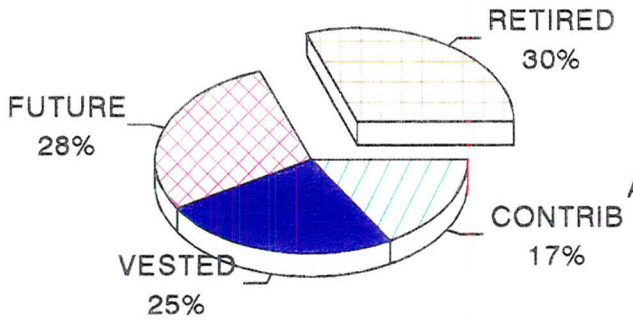
UNFUNDED LIABILITY



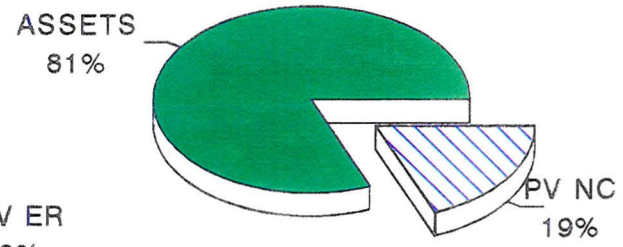
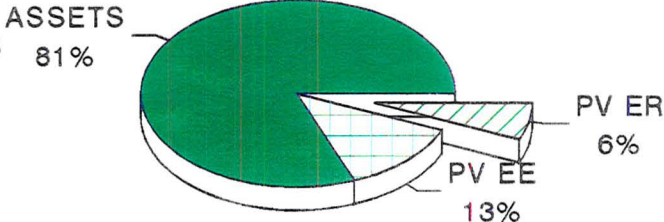
INCOME AND PAYOUTS



ACTUARIAL ASSETS 1992



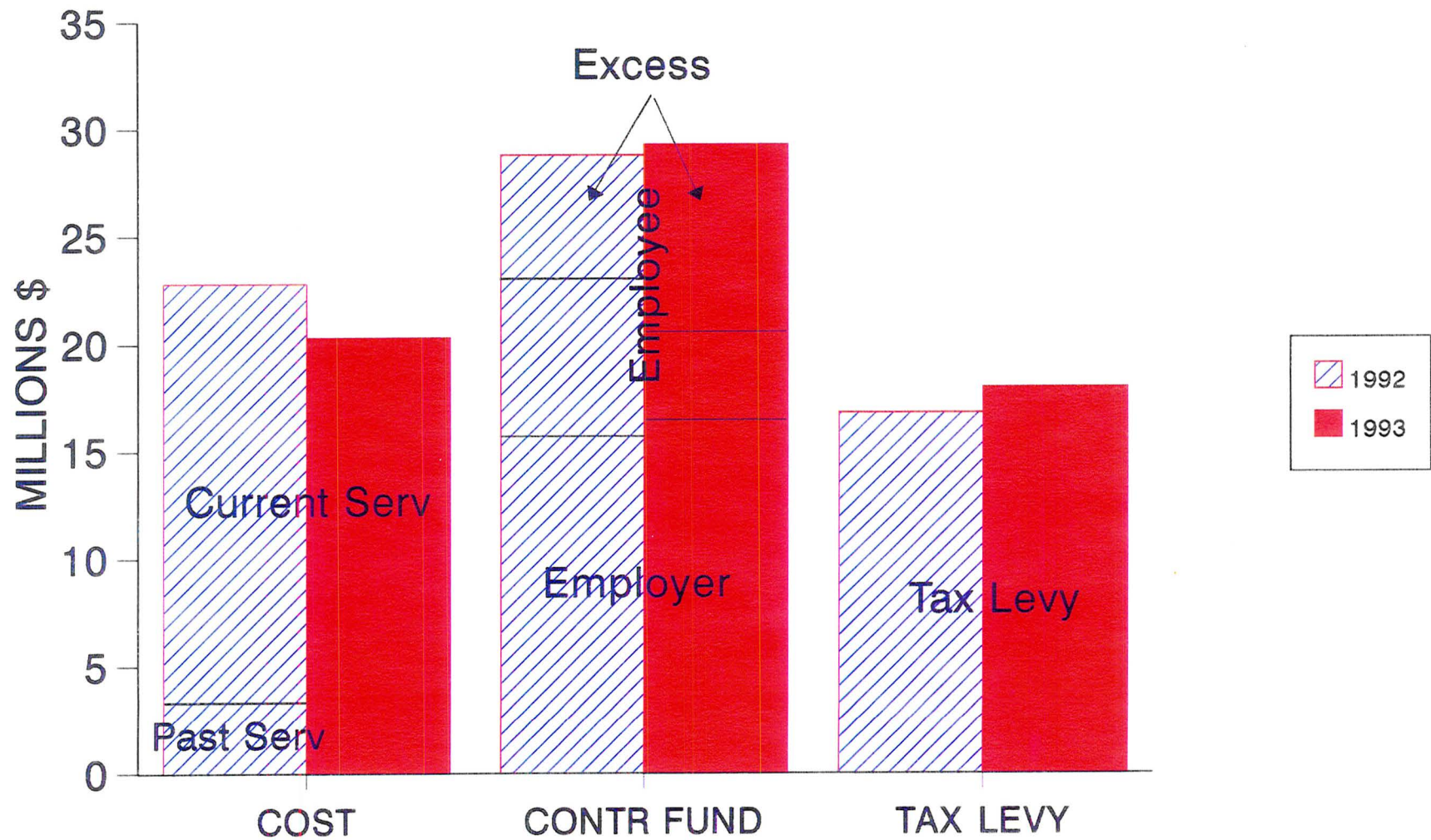
ACTUARIAL PRESENT VALUE OF
BENEFITS 1992



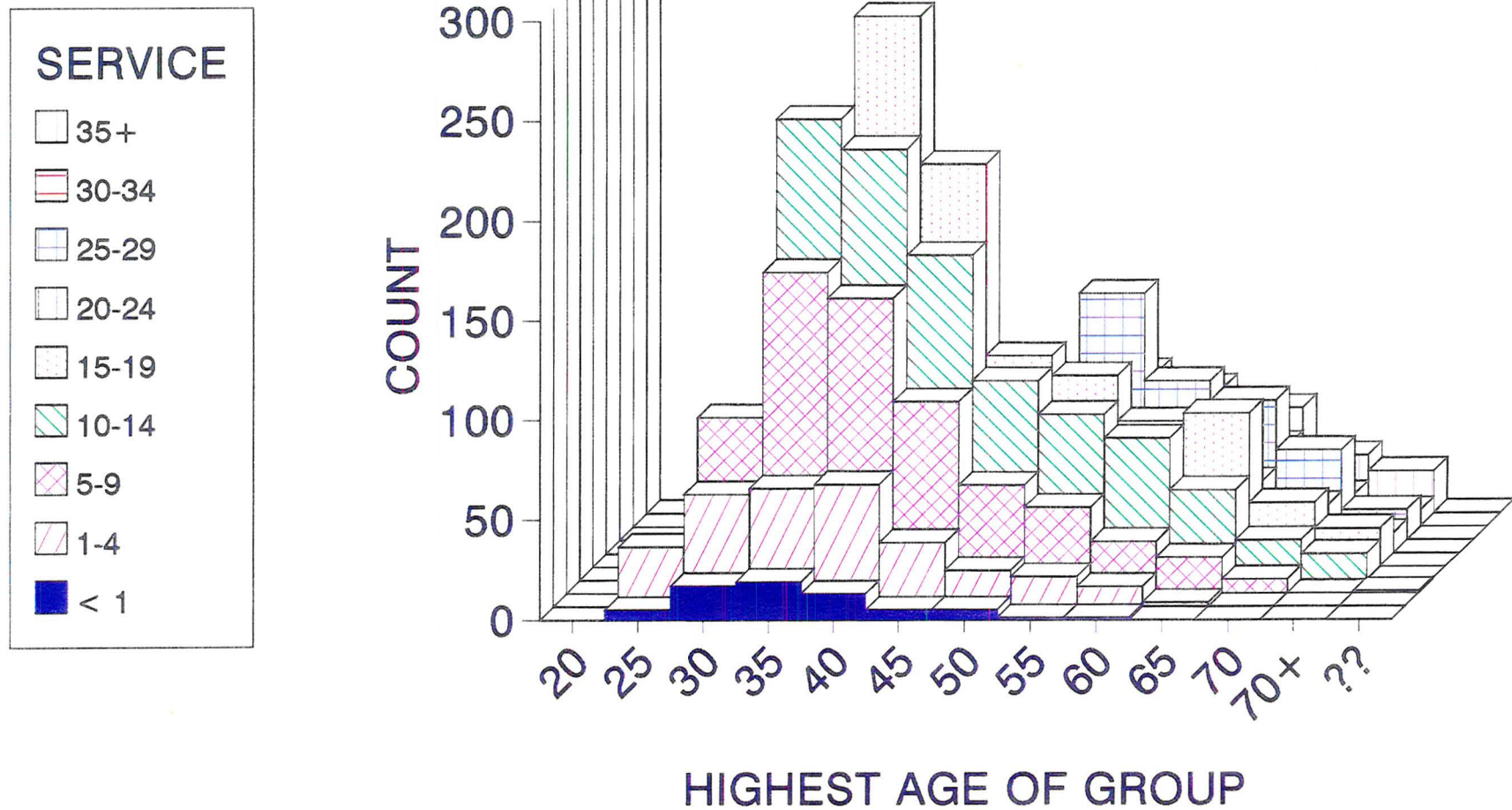
ACTUARIAL COST
METHOD 1992

ANNUAL ACTUARIAL COST

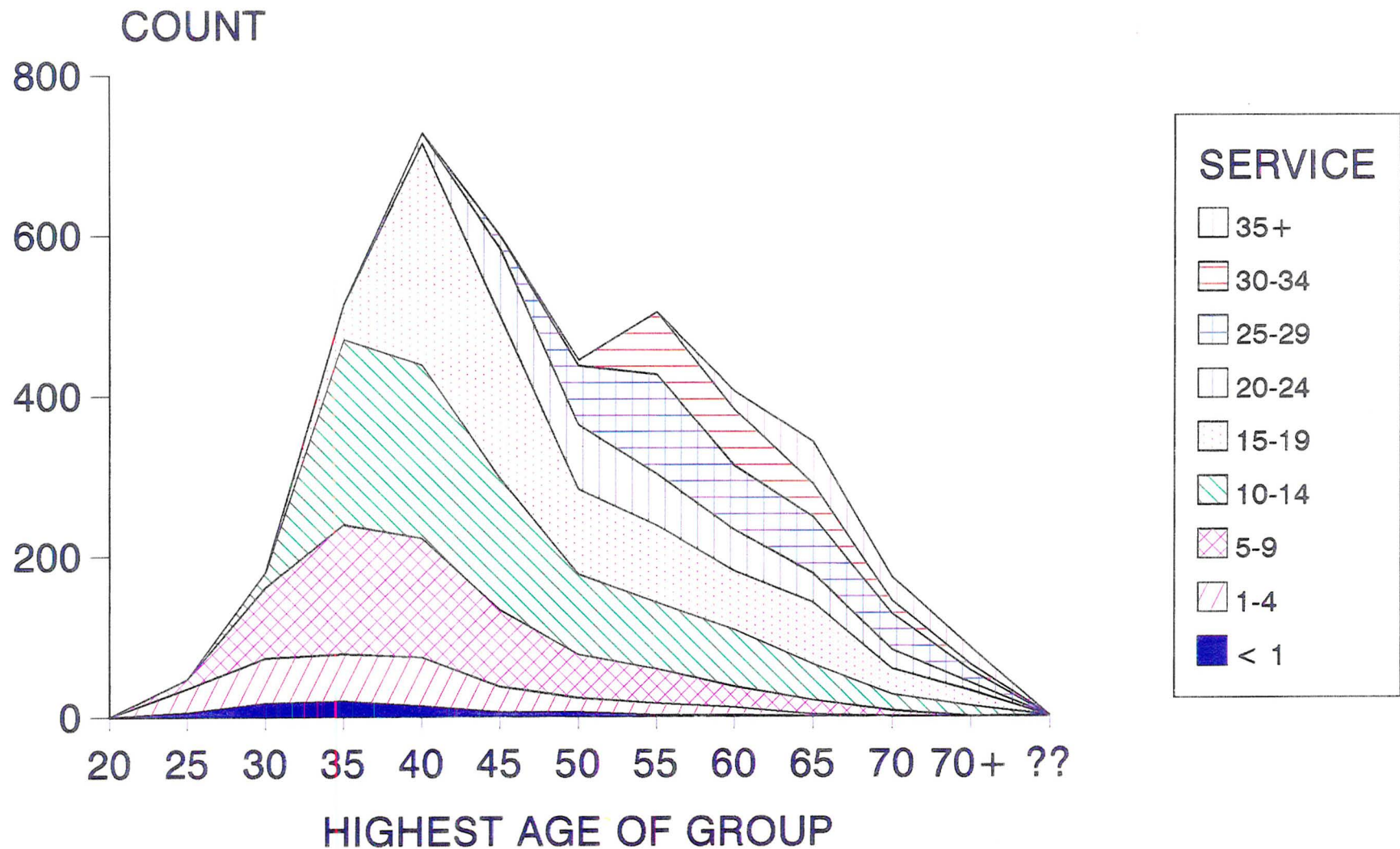
(Normal Cost plus Interest Only)



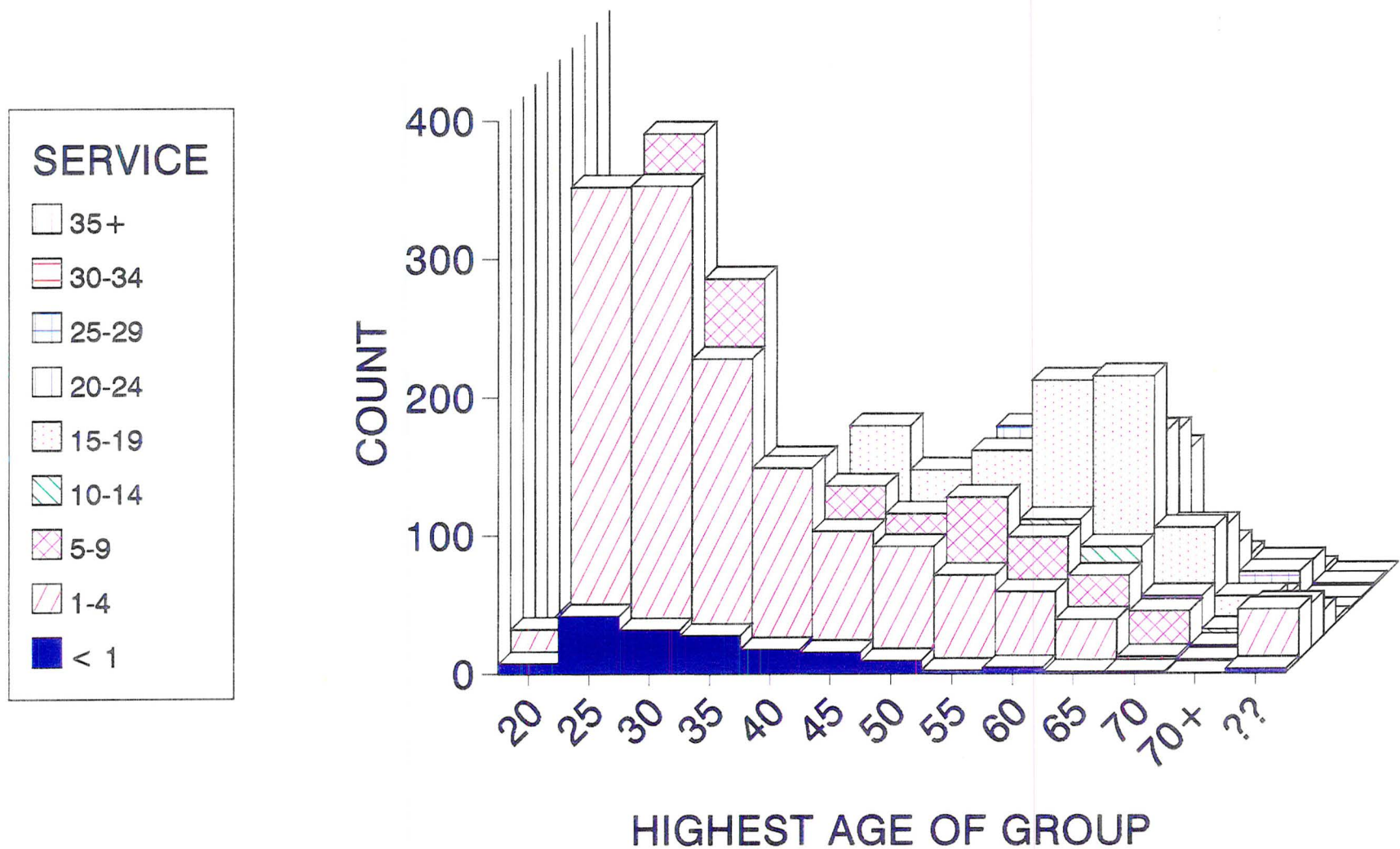
EMPLOYEES BY AGE AND SERVICE 1992



EMPLOYEES BY AGE AND SERVICE 1992

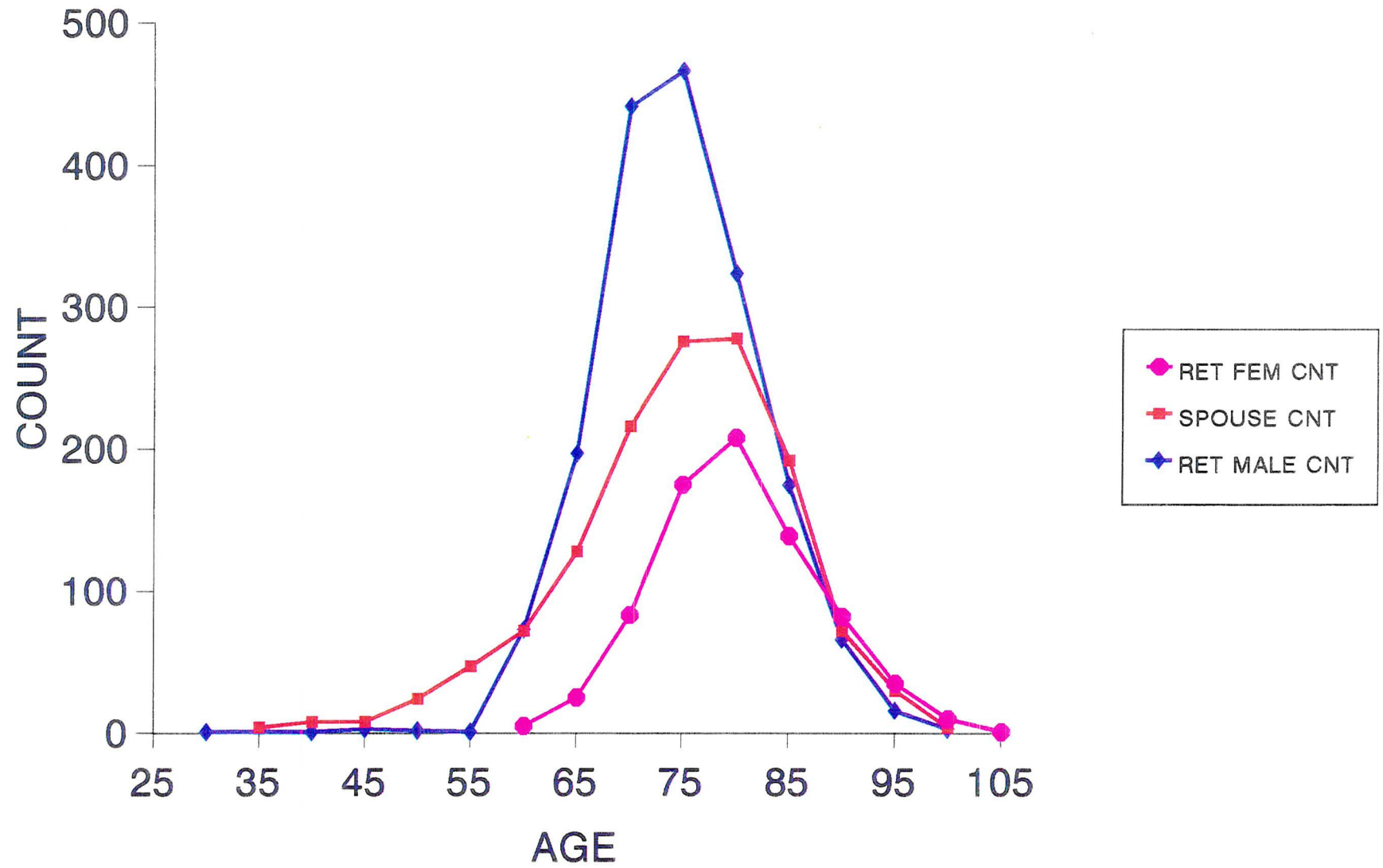


EMPLOYEES BY AGE AND SERVICE 1982

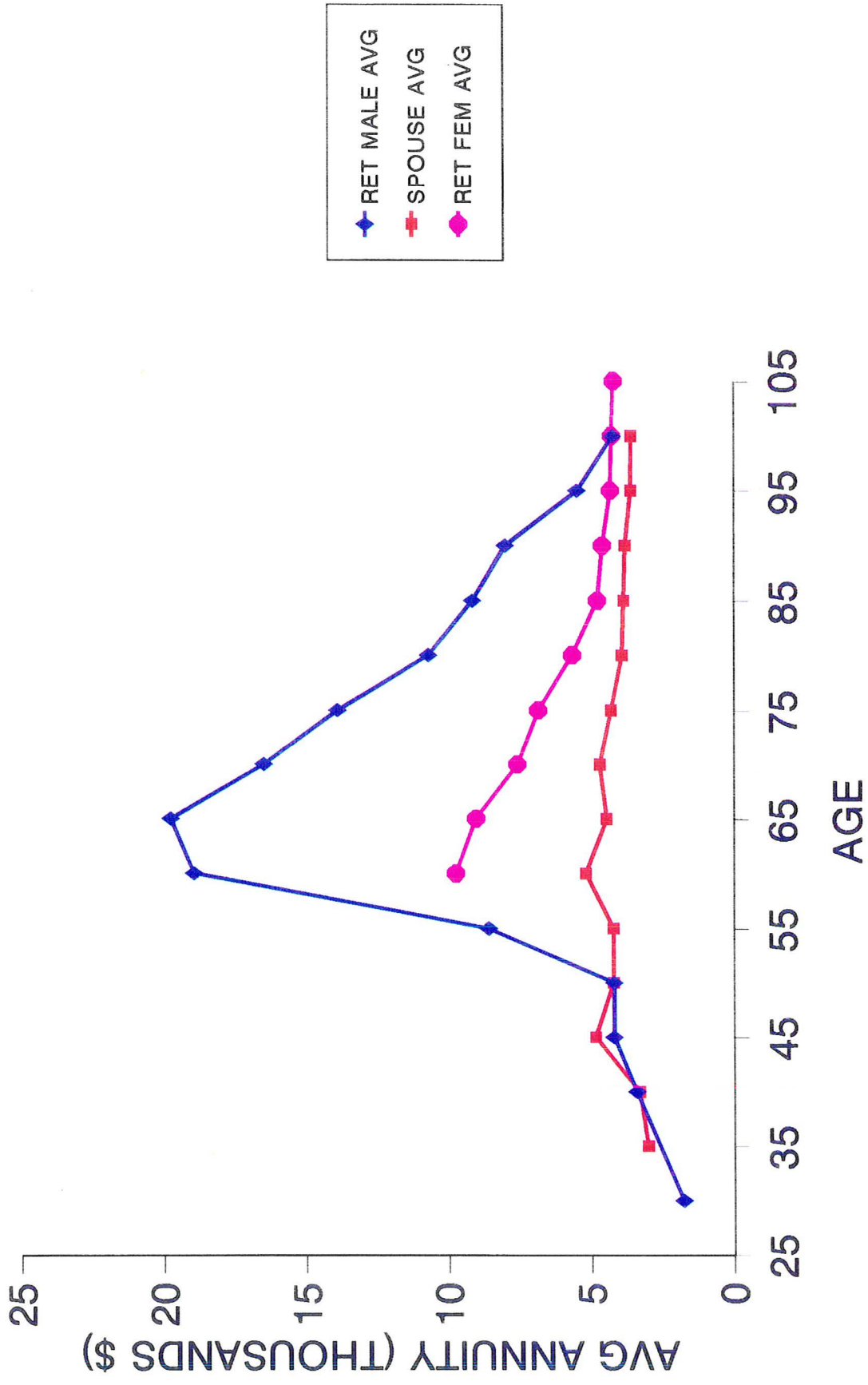


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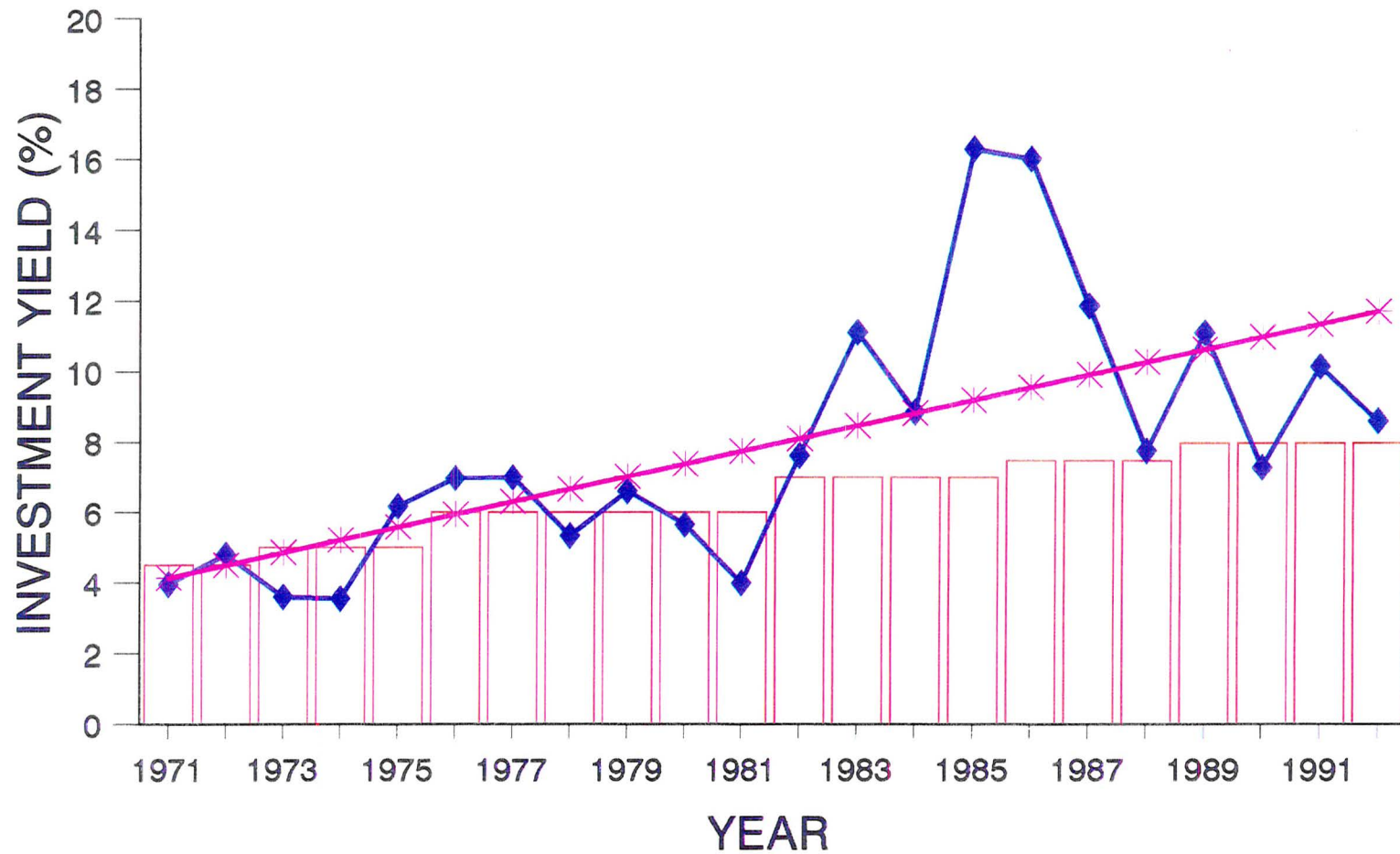
ANNUITANTS BY AGE 1992



ANNUITANTS BY AGE 1992



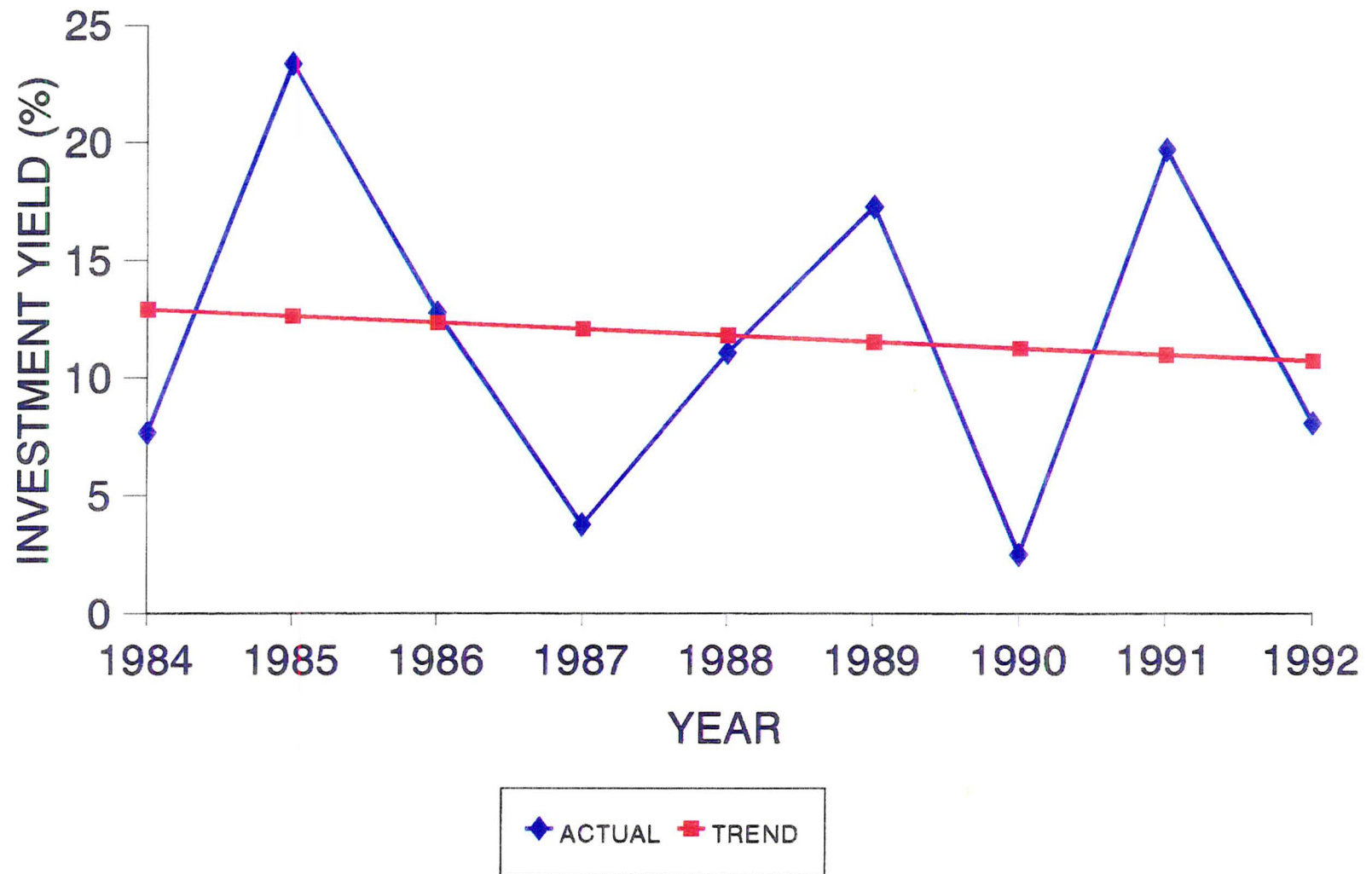
YIELD ON TOTAL ASSETS (BOOK)



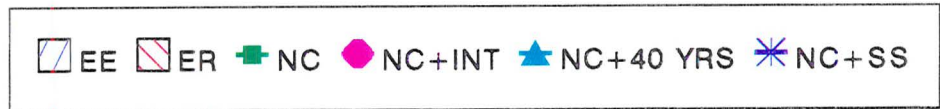
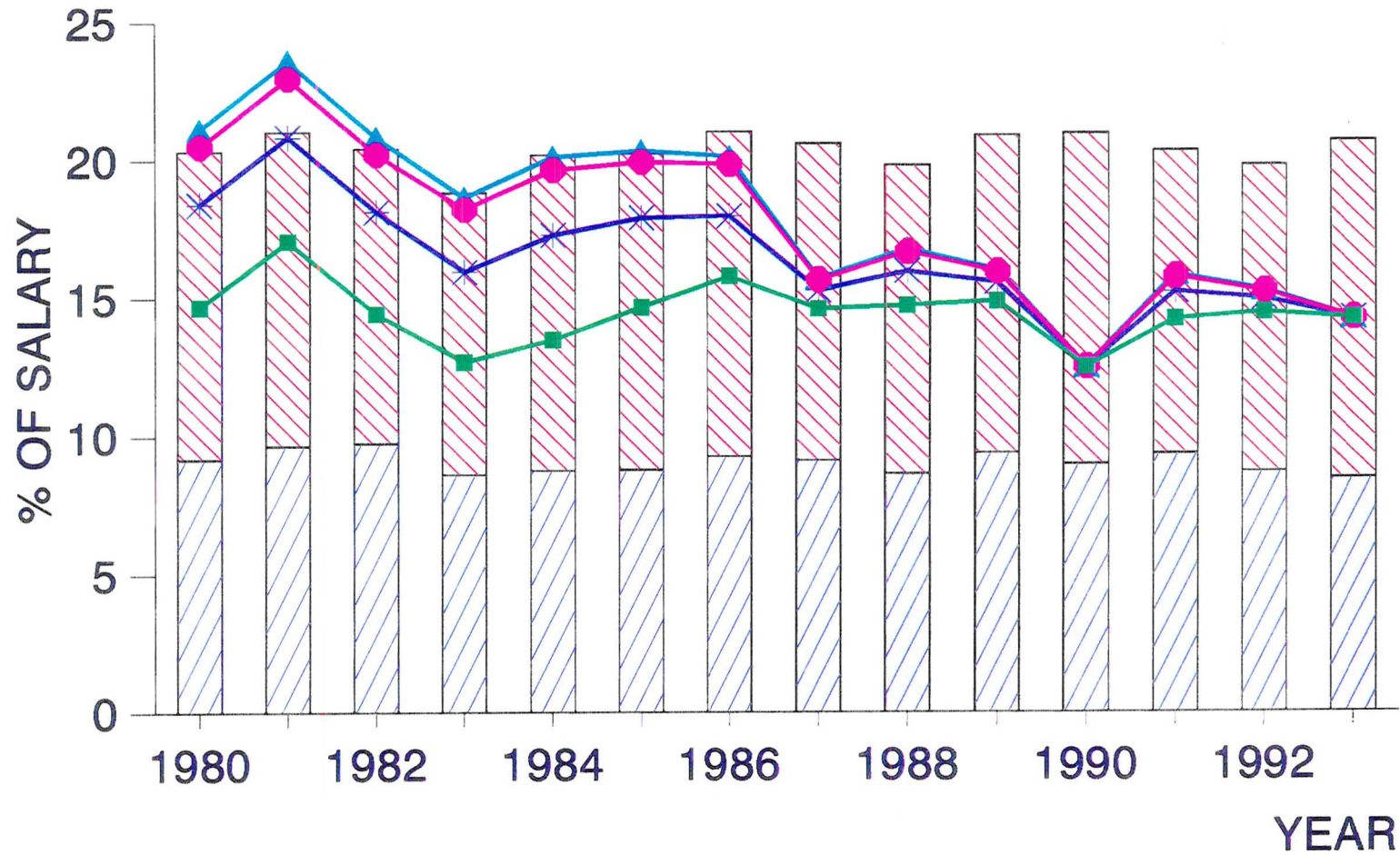
◆ LAB □ ACT ASSUMPTION * LAB; Y = .36286X + 3.7652

MARKET YIELD

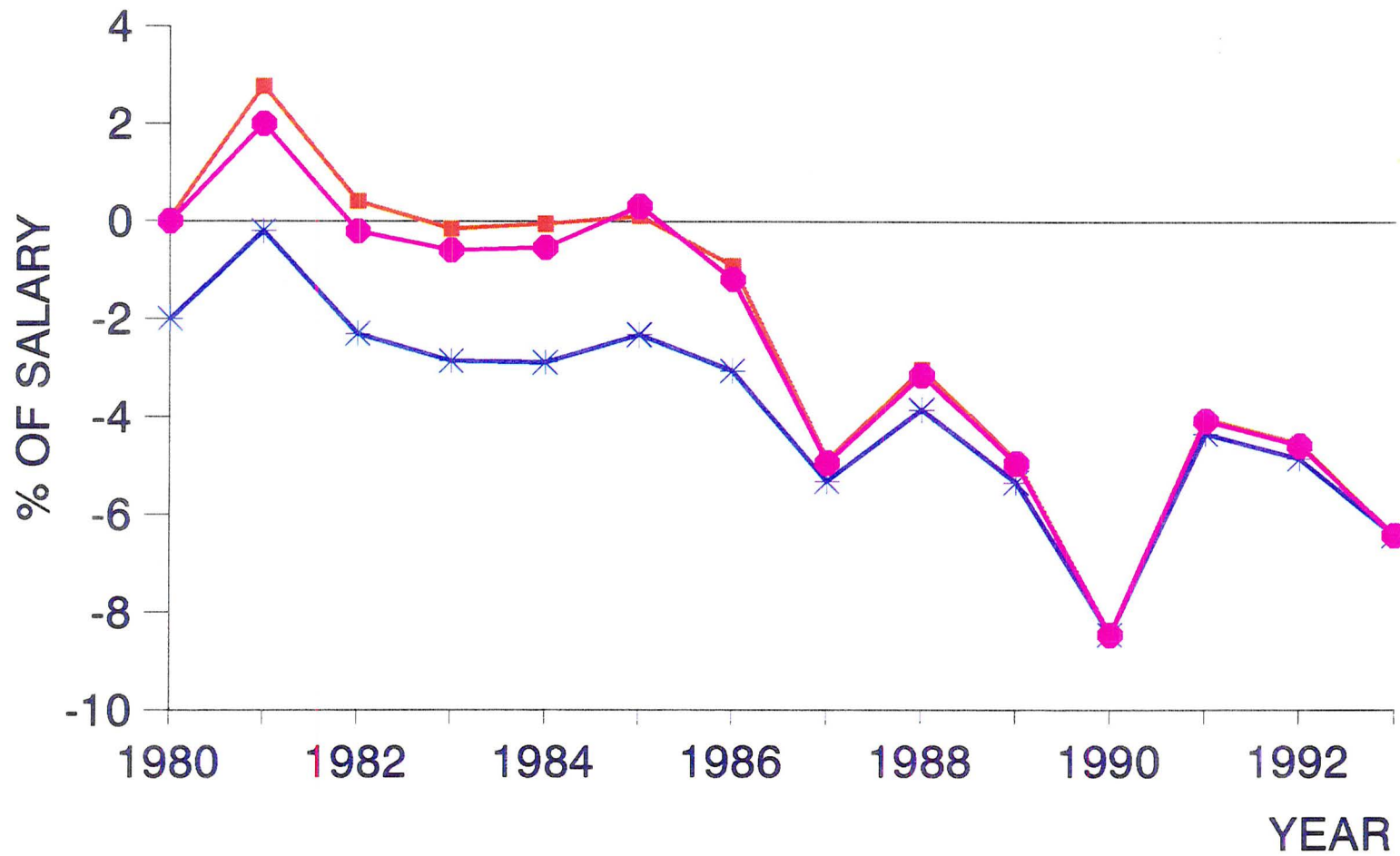
INVESTED ASSETS NET OF INVESTMENT EXPENSE



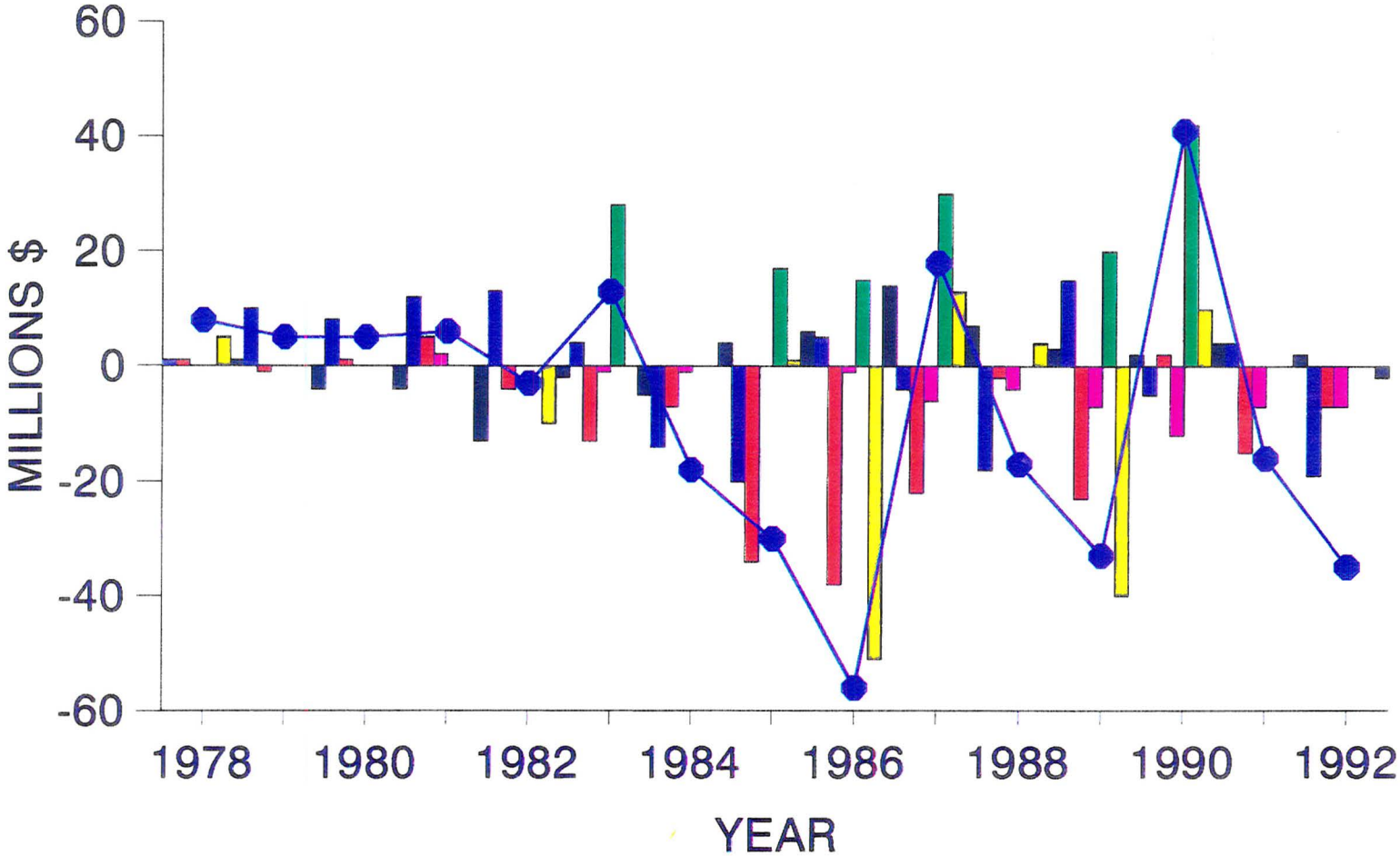
ACTUARIAL COST



ACTUARIAL DEFICIENCY (EXCESS)



CHANGE IN THE UNFUNDED LIABILITY



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B-540

April 27, 1993

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, 1992, 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 1992. 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 Article 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 next graph of funded ratios displays the ratio of assets to liabilities for the various different measures of liability.

The following graph 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' 1993 survey, *Big Job Gets Bigger*, shows that the mean actuarial interest rate assumption for public funds (based on 200 public funds) was 8.0% for 1991 and 8.1% for 1992. The corresponding salary increase assumption for public funds was 5.8% for 1991 and 5.7% for 1992. Corporate funds' actuarial assumptions tended to be higher in the interest assumption (8.7% in 1991 and 8.4% in 1992) and lower in the salary assumptions (5.2% in 1991 and 5.6% in 1992). For the 1993 survey, the average monthly benefit paid to all public retirees was \$768. This benefit is somewhat higher than those paid to retirees of corporate funds (\$544); however, corporate retirees also receive Social Security payments. Based on the *1993 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 67 years for the period 1926 through 1992.

		Total Annual Return	Inflation	Net
Common Stocks		10.3%	3.1%	7.2%
Small Stocks		12.2	3.1	9.1
Long-Term Corporate Bonds		5.5	3.1	2.4
Long-Term Government Bonds		4.8	3.1	1.7
Intermediate Term Gov't Bonds		5.2	3.1	2.1
U.S. Treasury Bills		3.7	3.1	0.6
Inflation for the past	5 years	1988-1992	4.2%	
	10 years	1983-1992	3.8	
	20 years	1973-1992	6.2	
	30 years	1963-1992	5.3	
	40 years	1953-1992	4.3	
	67 years	1926-1992	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 67-year period would be approximately 7.4% with a net return after inflation of 4.3%.

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.

This valuation does not include the cost for the Early Retirement Incentive in Senate Bill 1650 (signed January 25, 1993). The Early Retirement Incentive was created for withdrawals from December 31, 1992 to June 30, 1993. The employee must be age 55 or older, have at least 20 years of service, of which 5 may be purchased, and file an election form before June 1, 1993. The Early Retirement Incentive provides for elimination of the age discount for the employee, a maximum of 80% of final average salary and an optional purchase of up to 5 years of service credit at the rate of 4.25% of salary per year. These payments will be included in the calculation of the tax levy. The impact of the Early Retirement Incentive plan has not been reflected in this valuation. Actual experience will be reflected in the 1993 valuation. If approximately 30% of those eligible retire under the Early Retirement Incentive, the unfunded liability may increase by about \$12.9 million. If 100% of those eligible retired, the unfunded liability would increase by about \$43.0 million. This is just the additional cost due to the Early Retirement Incentive and not the total liability for these retired lives.

This valuation also does not include the cost due to a 3% retroactive salary increase for 1992 City employees which was received in 1993. This will be reflected next year.

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 P.

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	2,534	\$202,641,629
Annuity Increase	2,404	34,562,790
Future Widow Benefit	1,657	21,202,157
Lump Sum Death Benefit	0	0
Health Insurance Supplement	2,402	9,838,167
Widow Annuity	1,359	43,396,153
Widow Compensation	1	<u>1,866</u>
Total Retired Reserve		\$311,642,762

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	\$422,711,192	
Annuity Increase	88,103,141	
Future Widow/Widower Benefit	41,814,038	
Lump Sum Death Benefit	0	
Health Insurance Supplement	9,953,676	
Widow/Widower of Employees, Dying in Service	19,853,135	
Widow/Widower Compensation, Duty Death	0	
Miscellaneous	<u>92,602,377</u>	
Total Active	\$675,037,559	
 Total Active and Retired Present Value of Benefits	 \$986,680,321	
 Less Present Value of Future Normal Costs		<u>\$209,295,159</u>
Net Active Reserve		465,742,400
Net Active Reserve and Retired		777,385,162
Less Present Assets		<u>797,641,186</u>
 Surplus		 \$ 20,256,024

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	\$797,641,186	81 %
Future Employee Contributions	125,698,871	12
Future Employer Contributions	165,319,155	17
Deficiency (Excess)	<u>(101,978,891)</u>	<u>(10)</u>
Total	\$986,680,321	100 %

Present Value of	Actuarial Assets	Percent of Total	Actuarial Liabilities	Percent of Total
Benefits				
Retired Lives			\$311,642,762	32 %
Active Lives			675,037,559	68
Present Assets	\$797,641,186	81 %		
Normal Costs	209,295,159	21		
Unfunded Liability (Surplus)	<u>(20,256,024)</u>	<u>(2)</u>	<u> </u>	<u> </u>
Total	\$986,680,321	100 %	\$986,680,321	100 %

The pie charts illustrate:

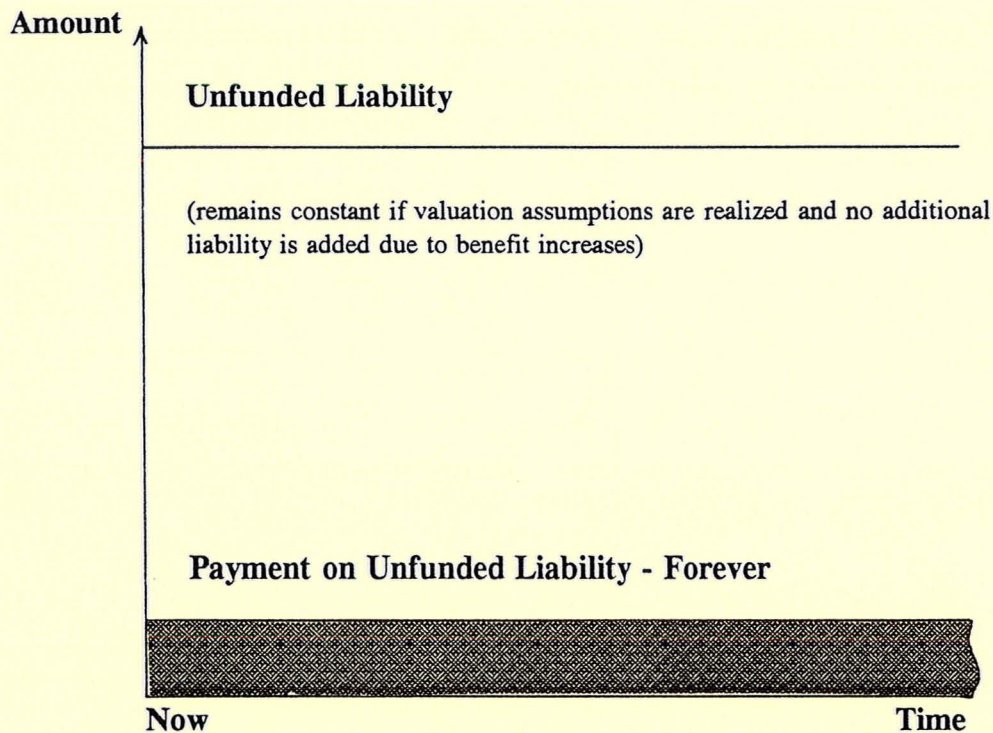
1. Actuarial Present Value of Future Benefits
2. Actuarial Assets
3. Actuarial Cost Method

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.

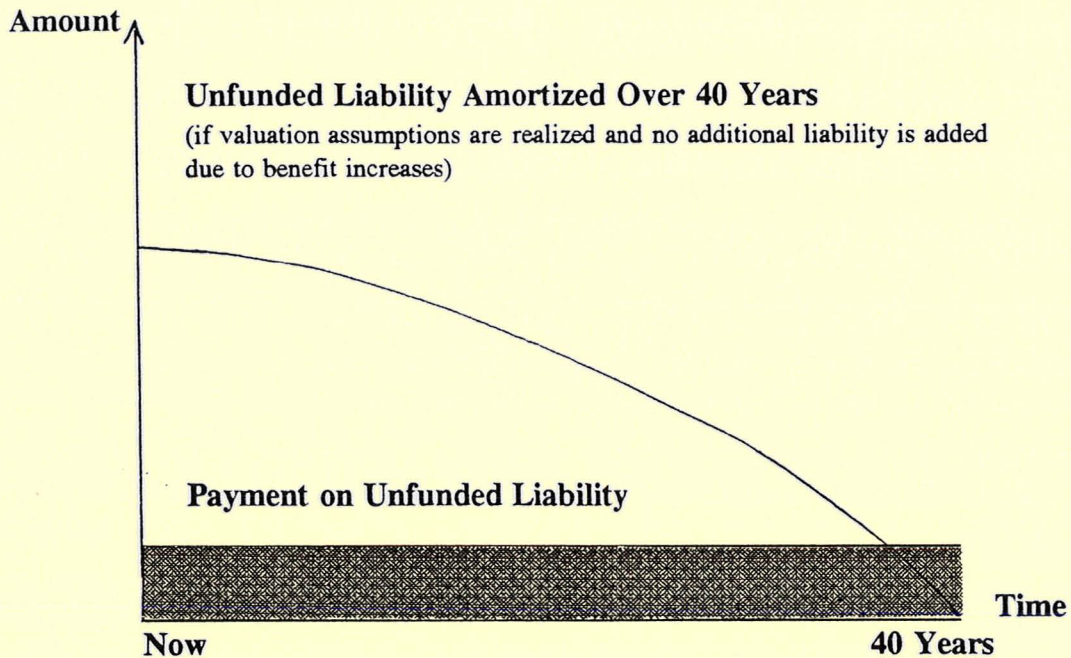


2. Normal Cost Plus 40 Year Amortization Method

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.

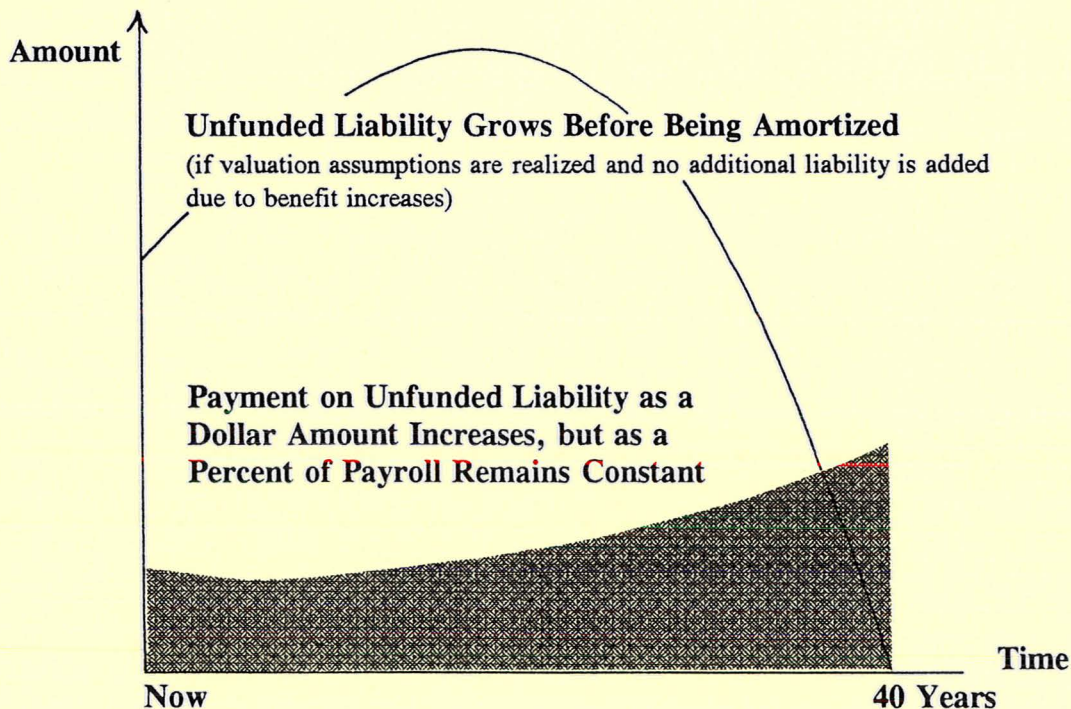
Both of these first two cost methods, the normal cost plus interest method and the normal cost plus 40 year amortization method, express the past service costs as a level annual dollar amount. Consequently, as the total payroll increases in the future, the level annual amount becomes a decreasing percent 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 Revised Statutes, Chapter 108-1/2, Article 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 1993 Tax Levy	Ultimate Required Multiple¹
1. Normal Cost Plus Interest Only	\$8,566,231	0.80
2. ERISA: Normal Cost Plus 40-Year Amortization	\$8,566,231	0.80
3. Normal Cost Plus 40-Year Level % of Payroll Increasing 4% a Year (Inflation Only)	\$8,566,231	0.80
4. Present Law (Includes Park)	\$18,047,000	1.37

¹ Assuming all valuation assumptions are realized and no future benefit liberalization.

The preceding table indicates the need to take into consideration in the funding policy future annual costs expressed both as a level annual dollar amount and as a level annual percent of payroll.

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 about half of what it was at the end of 1967.

Required Actuarial Contribution

Based on the normal cost plus interest method of funding, we find that the tax levy for 1993 should be \$8,556,231, which amount includes a 4% reserve for loss on collection. This amount is based on an annual payroll (as of December 31, 1992) of \$141,618,648 and an active membership of 4,022 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	\$21,637,649	\$20,261,167	14.52%	14.31%	\$5,027	\$5,038
2. Interest on Unfunded Liability	<u>1,138,972</u>	<u>0</u>	<u>.76</u>	<u>0.00</u>	<u>265</u>	<u>0</u>
3. Total Actuarial Requirement (1 + 2)	<u>22,776,621</u>	<u>20,261,167</u>	<u>15.28</u>	<u>14.31</u>	<u>5,292</u>	<u>5,038</u>
4. Employee Contributions	12,669,602	12,037,585	8.50	8.50	2,944	2,993
5. Employer Requirement (3 - 4)	10,107,019	8,223,582	6.78	5.81	2,348	2,045
6. Expected Net Employer Contribution from Tax Levy	16,846,000	18,047,000				
After a 4% Loss	<u>16,172,160</u>	<u>17,325,120</u>	<u>10.85</u>	<u>12.24</u>	<u>3,757</u>	<u>4,308</u>
7. Expected Net Annual Deficiency (Excess)	(6,065,141)	(9,101,538)	(4.07)	(6.43)	(1,409)	(2,263)
8. Tax Levy Required (Assume 4% Loss)	10,528,145	8,566,231				
9. Required Multiple	.93	.80				
10. Present Authorized Multiple	1.37	1.37				
11. Amortization Period	3 years	N/A				

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 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	6.64%	6.68%	\$2,302	\$2,347
Post-Retirement Annuity Increase	1.40	1.40	484	494
Post-Retirement Spouse Annuity	.66	.66	229	233
Spouse Annuity for Death in Service	.54	.54	189	191
Health Insurance	.16	.14	53	52
Child's Annuity	.10	.10	33	35
Ordinary Disability	.78	.83	270	293
Duty Disability	.81	.93	282	328
Refunds	2.48	1.97	855	693
Widows'/Widowers' Compensation	0.00	0.00	0	0
Expense of Administration ¹	.77	.87	266	307
Reciprocal Benefits	<u>.18</u>	<u>.19</u>	<u>64</u>	<u>65</u>
Total	14.52%	14.31%	\$5,027	\$5,038

¹ Net of investment expense

Change in the Unfunded Liability

The total funded surplus as of December 31, 1992 is \$20,256,024. As of December 31, 1991, the total unfunded liability was \$14,795,681. The unfunded liability was eliminated, meaning all past service has been paid for.

Detail of Change in Unfunded Liability

1. Increase in Salaries under 6.0% Assumed ¹		\$(18,990,267)	Decrease
2. Investment Yield over 8.0% Assumed		(7,386,966)	Decrease
3. Excess in Annual Contribution:			
1992 Total Actuarial Requirement	\$22,776,621		
Less Employer Net to Fund 1992 Tax Levy	16,574,721		
Less Employee Contributions for 1992	<u>13,025,003</u>	(6,823,103)	Decrease
4. Miscellaneous Actuarial Experience		<u>(1,851,369)</u>	Decrease
Net Change in Unfunded Liability		\$(35,051,705)	Decrease

¹ Does not include 1992 3% retroactive salary increase for City employees paid in 1993.

See the historical tabulation in the back of this report.

Funded Ratio

The ratio of assets to liabilities is 102.61% as of December 31, 1992, and was 98.06% as of December 31, 1991. This ratio represents the extent to which present and future benefit promises are secured by present assets. The funded ratio increased because assets increased 6.9% while liabilities increased 2.1%.

Ratio of Active Employees to Annuitants and Beneficiaries

The ratio of active employees to annuitants and beneficiaries is .96 as of December 31, 1992, and was 1.04 as of December 31, 1991. 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.

	1991	1992
Liability for Retired Annuitants and Widows/Widowers Spouses of Annuitants	\$291,757,778	\$311,642,762
Salary Deductions Contributed by Active Fund Members	<u>156,649,525</u>	<u>161,298,914</u>
Total	448,407,303	472,941,676
Assets at Book Value	<u>746,260,921</u>	<u>797,641,186</u>
Excess Upon Termination	297,853,618	324,699,510
Quick Ratio	166%	169%
Available Assets for Actives (Retirees Fully Funded)	\$454,503,143	\$485,998,424
Available per Active Employee	105,600	120,835
Refundable per Active Employee	36,396	40,104
Ratio of Available to Refundable	290%	301%

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.

	1991	1992
Liability for Retired Annuitants and Widows/ Widowers and Spouses of Annuitants	\$291,757,778	\$311,642,762
Value of Active Employees Eligible to Retire	304,071,299	298,533,007
Accumulated Salary Deductions of Active Employees Eligible for Refund and Not Annuity	98,632,382	102,791,803
Active Vested Liability	<u>402,703,681</u>	<u>401,324,810</u>
Total Vested Liability	694,461,459	712,967,572
Assets at Book Value	<u>746,260,921</u>	<u>797,641,186</u>
Unfunded Vested Liability (Surplus)	\$(51,799,462)	84,673,614
Vested Funded Ratio	107.46%	111.88%

The average amount of assets required per active employee to provide for vested benefits as of the valuation date is \$99,782. 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 \$115,799.

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.

	1991	1992
Pension Benefit Obligation (PBO)		
APV of Credited Projected Benefits		
Accumulated contributions (with interest)	\$156,649,525	\$161,298,914
Payable to retirees and beneficiaries	291,757,778	311,642,762
Payable to vested and non-vested current employees	<u>227,323,700</u>	<u>219,958,981</u>
Total APV	675,731,003	692,900,657
Net Assets Available for Benefits (book value)	<u>746,260,921</u>	<u>797,641,186</u>
Excess Assets over APV of Credited Projected Benefits	\$70,529,918	\$104,740,529
Percentage Funded	110.44%	115.12%
Surplus APV as Percent of Payroll	47.32	73.96

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 \$3.29. 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.

The disadvantage of funding methods that use the level percent of payroll funding of past service is that the unfunded liability will continually increase if salaries continue at the predicted rates. Subject to projections of contributions and disbursements for potential cost flow problems, the level percent of payroll method would appear to provide a long-range level funding method on a minimum funding basis whether for interest only or over a 40-year period.

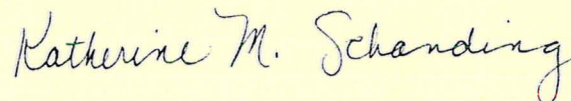
Respectfully submitted,



Donald F. Campbell, F.C.A., M.A.A.A.
Enrolled Actuary No. 93-1248



Donald P. Campbell, F.S.A., M.C.A., M.A.A.A.
Enrolled Actuary No. 93-1498



Katherine M. Schanding, F.S.A., M.A.A.A.
Enrolled Actuary No. 93-3838

DPC:iw

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

Actuarial Balance Sheet

as of

December 31, 1992

Assets and Liabilities

LIABILITIES AND FUND BALANCES

Actuarial Balance Sheet as of December 31, 1992

Annuity Payment Fund Account		
(Based on 3% Comb. and 4% Amer. Exp. Tables)		
Employee Annuitants	\$85,504,403.64	
Spouse Annuitants	29,941,737.96	
Spouses' Annuities Fixed	<u>23,917,732.23</u>	
Total Annuity Payment Fund		\$139,363,873.83
Salary Deduction Fund Account		
Employees	125,162,290.07	
Spouses of Employees	<u>28,358,093.16</u>	
Total Salary Deduction Fund		153,520,383.23
City Contribution Fund Account		
Employees	116,143,519.86	
Spouses of Employees	38,090,464.63	
Compensation	<u>4,780.13</u>	
Total City Contribution Fund		154,238,764.62
Other Reserves		
Supplementary Payment Reserve	82,926.79	
Annuity Payment Fund Account	<u>0.00</u>	
Total Other Reserves		82,926.79
Prior Service Fund Account		
(Based on 3% Comb. and 4% Amer. Exp. Tables)		
Employee Annuitants	192,846,547.68	
Employee Annuitants Fixed	0.00	
Spouse Annuitants	19,068,335.16	
Spouses' Annuities Fixed	10,843,451.57	
Salary Deductions--Annuity Increase	12,454,298.07	
Estimated Excess Liability ¹	<u>94,966,580.95</u>	
Total Prior Service Fund Account		<u>330,179,213.43</u>
Total Liabilities		777,385,161.90
Obligations of Fund for Prior Service Liabilities¹		<u>20,256,023.91</u>
Total Net Liabilities and Fund Balances		<u><u>\$797,641,185.83</u></u>

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

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

Income - Year 1992

Income and Expenditures

EXPENDITURES FOR YEAR 1992

Total Income Forwarded		\$95,862,870.11
Benefits		
Employees' Annuities	\$28,557,579.16	
Spouses' Annuities	5,668,669.17	
Compensation Annuities	0.00	
Children	140,310.00	
Ordinary Disability (includes \$211,584.39 DIL)	1,176,768.90	
Duty Disability (includes \$556,676.48 DIL)	1,317,889.53	
Supplemental Annuities	26,208.00	
Annuitant Health Insurance	<u>1,218,448.41</u>	
Total Benefits	38,105,873.17	
Reciprocal Act Reimbursements	<u>(4,598.40)</u>	
Net Benefits Paid		\$38,101,274.77
Expense of Administration		
Salaries		
Regular Employees	442,959.21	
Payroll Taxes	3,985.51	
Group Health Insurance	109,721.62	
Life Insurance Premiums	1,121.20	
Services		
Actuarial Consulting	49,376.10	
Annuity Computation and Certification	109,366.39	
Employee Accounts and Data Processing	69,392.66	
Check Production	80,867.64	
Legal Expense	30,870.00	
Medical Expense	25,830.00	
Auditing	18,500.00	
Consulting	8,000.00	
Public Education	9,000.00	
Conference, Membership, & Education Expense	17,802.06	
Election Expense	867.60	
Printing and Stationery	24,934.42	
Office Supplies and Equipment	16,378.86	
Postage	28,389.30	
Rent and Electricity	115,860.70	
Telephone	4,875.00	
Depreciation Expense	19,344.82	
Miscellaneous	<u>2,710.54</u>	
Total Expenses		1,190,153.63
Refunds		2,789,309.70
Litigation Expense		44,833.77
Investment Manager Fees		2,197,565.52
Investment Custodian Fees		<u>479,163.91</u>
Total Expenditures		<u>44,802,301.30</u>
Excess Income Over Expenditures		51,060,568.81
Net Change in Reserve for Loss of Collection and Taxes Receivable for Prior Years		245,841.26
Net Change in Reserve for Payables and Receivables		73,855.04
Increase in Net Assets for Year		<u>\$51,380,265.11</u>

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

Comparative Analysis - Year 1992

Assets and Liabilities

COMPARATIVE ANALYSIS
LIABILITIES AND FUND BALANCES

Liability Reserves	01/01/92	12/31/92	Increase (Decrease)
Annuity Payment Fund			
Employee Annuitants	\$ 78,024,295	\$ 85,504,404	\$ 7,480,109
Spouse Annuitants	27,628,615	29,941,738	2,313,123
Spouses' Annuities Fixed	<u>21,224,778</u>	<u>23,917,732</u>	<u>2,692,954</u>
Total	126,877,688	139,363,874	12,486,186
Salary Deduction Fund Account			
Employees	121,642,980	125,162,290	3,519,310
Spouses of Employees	<u>27,372,754</u>	<u>28,358,093</u>	<u>985,339</u>
Total	149,015,734	153,520,383	4,504,649
City Contribution Fund Account			
Employees	112,996,339	116,143,520	3,147,181
Spouses of Employees	36,834,891	38,090,465	1,255,574
Compensation Annuities	<u>4,557</u>	<u>4,780</u>	<u>223</u>
Total	149,835,787	154,238,765	4,402,978
Other Reserves			
Supplemental Payment Reserve	79,135	82,927	3,792
Annuity Fund Account	<u>(0)</u>	<u>(0)</u>	<u>(0)</u>
Total	79,135	82,927	3,792
Prior Service Fund Account			
Employee Annuitants	177,730,388	192,846,548	15,116,160
Spouse Annuitants	19,546,433	19,068,335	(478,098)
Spouses' Annuities Fixed	10,272,244	10,843,451	571,207
Salary Deductions--Annuity Increase	11,895,819	12,454,298	558,479
Estimated Excess Liability	<u>115,803,374</u>	<u>94,966,581</u>	<u>(20,836,793)</u>
Total	335,248,258	330,179,213	(5,069,045)
Total Liabilities	761,056,602	777,385,162	16,328,560
Obligations for Prior Service (Unfunded)/Surplus	<u>(14,795,681)</u>	<u>20,256,024</u>	<u>35,051,705</u>
Total Net Liabilities	<u>\$746,260,921</u>	<u>\$797,641,186</u>	<u>\$51,380,265</u>

TAXES RECEIVABLE

December 31, 1992

Year	Uncollected Taxes 12/31/92	Estimate for Loss 12/31/91	Additional Est. Setup 12/31/92	Total Est. for Loss 12/31/92	Taxes Collectible 12/31/92
City					
1988	\$ 491,968.53	\$ (434,868.05)	\$ (12,627.62)	\$ (447,495.67)	\$ 44,472.86
1989	404,794.88	(400,235.03)	14,284.03	(385,951.00)	18,843.88
1990	286,746.01	(362,640.00)	79,121.00	(283,519.00)	3,227.01
1991	865,304.26	(647,100.00)	258,840.00	(388,260.00)	477,044.26
1992	<u>13,300,000.00</u>	<u>0.00</u>	<u>(665,000.00)</u>	<u>(665,000.00)</u>	<u>12,635,000.00</u>
Total	\$15,348,813.68	\$(1,844,843.08)	\$(325,382.59)	\$(2,170,225.67)	\$13,178,588.01

Park

1988	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
1989	0.00	(314.37)	314.37	0.00	0.00
1990	198.40	(600.00)	401.60	(198.40)	0.00
1991	933.36	(500.00)	0.00	(500.00)	433.36
1992	<u>11,000.00</u>	<u>0.00</u>	<u>(550.00)</u>	<u>(550.00)</u>	<u>10,450.00</u>
Total	\$ 12,131.76	\$ (1,414.37)	\$ 165.97	\$ (1,248.40)	\$ 10,883.36

Total City and Park

\$15,360,945.44 \$(1,846,257.45) \$(325,216.62) \$(2,171,474.07) \$13,189,471.37

Replacement Tax from State	1990	0.00
	1991	<u>3,535,000.00</u>
		\$16,724,471.37

Note: The loss on the 1992 tax levy was 5%. Due to the 100% collection of the personal property replacement tax, the overall loss is 4%. The statutory requirement of \$16,846,000 is the sum of \$13,300,000 plus \$11,000 plus \$3,535,000.

MEMBERSHIP STATISTICS

Year 1992

	Number at Beginning of Year	Increases	Decreases	Number at End of Year
A. Changes in Active Participants				
Male	3,995	161	408	3,748
Female	<u>309</u>	<u>17</u>	<u>52</u>	<u>274</u>
Total	<u>4,304</u>	<u>178</u>	<u>460</u>	<u>4,022</u>
B. Changes in Inactive Participants				
Male	1,560	211	314	1,457
Female	<u>112</u>	<u>22</u>	<u>21</u>	<u>113</u>
Total	<u>1,672</u>	<u>233</u>	<u>335</u>	<u>1,570</u>
C. Changes in Annuitants and Beneficiaries				
Employee Annuitants	2,397	170	151	2,416
Spouse Annuitants	1,296	86	60	1,322
Children's Annuities	88	14	14	88
Ordinary Disability Benefits	75	92	97	70
Duty Disability Benefits	143	406	393	156
Reciprocal Employee	104	18	4	118
Spouse	39	1	3	37
Widow/Widower Compensation Annuities	<u>1</u>	<u>0</u>	<u>0</u>	<u>1</u>
Total	<u>4,143</u>	<u>787</u>	<u>722</u>	<u>4,208</u>
D. Ratio of Active Participants to Annuitants and Beneficiaries				
	<u>1.04</u>			<u>0.96</u>

SALARY AND AGE STATISTICS
Year 1992

Ages and Salaries as of December 31, 1992

Male

Age	Number	Annual Salaries	Average Annual Salaries
Without DOB	1	\$ 29,520	\$29,520
Under 20	0	0	0
20 - 24	35	1,067,472	30,499
25 - 29	162	5,404,080	33,359
30 - 34	471	16,562,040	35,164
35 - 39	690	24,898,128	36,084
40 - 44	573	20,704,968	36,134
45 - 49	428	15,561,144	36,358
50 - 54	482	17,946,120	37,233
55 - 59	384	13,602,792	35,424
60 - 64	303	10,860,432	35,843
65 - 69	143	5,116,104	35,777
70 +	<u>76</u>	<u>2,627,040</u>	<u>34,566</u>
Active	<u>3,748</u>	<u>\$134,379,840</u>	<u>\$35,854</u>

Female

Without DOB	0	\$ 0	\$ 0
Under 20	0	0	0
20 - 24	12	293,760	24,480
25 - 29	18	591,216	32,845
30 - 34	43	1,318,560	30,664
35 - 39	37	1,132,464	30,607
40 - 44	26	788,208	30,316
45 - 49	16	448,248	28,016
50 - 54	22	570,912	25,951
55 - 59	21	532,872	25,375
60 - 64	39	785,568	20,143
65 - 69	30	588,528	19,618
70 +	<u>10</u>	<u>188,472</u>	<u>18,847</u>
Active	<u>274</u>	<u>\$ 7,238,808</u>	<u>\$26,419</u>
Total Male and Female	<u>4,022</u>	<u>\$141,618,648</u>	<u>\$35,211</u>

SALARY AND AGE STATISTICS

Year 1992

Ages at Entrance

Age	<u>Male</u>		<u>Female</u>	
	Number	Annual Salaries	Number	Annual Salaries
Under 25	1,400	\$ 52,282,584	47	\$1,383,720
25 - 29	805	28,925,448	49	1,367,376
30 - 34	571	19,957,488	69	1,776,048
35 - 39	350	12,087,720	55	1,351,776
40 - 44	309	10,620,840	27	642,408
45 - 49	172	5,740,368	17	461,040
50 - 54	81	2,716,008	7	183,864
55 - 59	49	1,658,736	3	72,576
60 and over	10	361,128	0	0
Without record	<u>1</u>	<u>29,520</u>	<u>0</u>	<u>0</u>
Totals	<u>3,748</u>	<u>\$134,379,840</u>	<u>274</u>	<u>\$7,238,808</u>

Average Annual Salary	\$35,854	\$26,419
Average Attained Age	45.6	46.8
Average Service	16.0	13.8
Average Age at Entrance	29.6	33.0

AGE AND SERVICE DISTRIBUTION
Year 1992

**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	5	30	12							47
	\$29,333	\$28,134	\$30,880							\$28,962
25-29	17	56	88	19						180
	\$37,567	\$29,786	\$34,261	\$35,459						\$33,307
30-34	19	59	161	231	44					514
	\$37,478	\$30,756	\$33,153	\$36,247	\$37,345					\$34,787
35-39	13	61	148	216	276	13				727
	\$36,947	\$30,568	\$33,966	\$36,211	\$37,493	\$37,619				\$35,805
40-44	5	32	96	163	202	84	17			599
	\$37,440	\$29,921	\$32,048	\$34,990	\$38,136	\$38,188	\$38,671			\$35,882
45-49	5	18	54	100	106	80	74	7		444
	\$37,440	\$29,824	\$32,740	\$34,355	\$36,832	\$37,977	\$38,643	\$40,005		\$36,057
50-54	1	15	43	83	96	64	124	78		504
	\$37,440	\$28,626	\$33,621	\$34,310	\$36,316	\$37,064	\$38,764	\$39,636		\$36,740
55-59	1	10	26	71	73	51	80	70	23	405
	\$37,440	\$28,807	\$32,000	\$32,265	\$36,376	\$35,026	\$33,497	\$38,539	\$37,742	\$34,903
60-64		2	18	45	77	36	70	41	53	342
		\$25,584	\$30,729	\$33,239	\$34,490	\$33,855	\$32,227	\$35,579	\$36,920	\$34,053
65-69			7	20	32	24	45	16	29	173
			\$31,080	\$35,652	\$37,115	\$29,833	\$30,911	\$28,260	\$35,421	\$32,975
70+				13	19	10	15	8	21	86
				\$37,226	\$33,821	\$34,361	\$30,365	\$29,262	\$31,229	\$32,739
w/o DOB			1							1
			\$29,520							\$29,520
Number	66	283	654	961	925	362	425	220	126	4,022
Salary	\$36,772	\$29,873	\$33,138	\$35,212	\$37,002	\$36,386	\$35,543	\$37,338	\$35,776	\$35,211
Age										45.7
Service										15.9

AGE AND SERVICE DISTRIBUTION

Year 1992

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+	
00-20		1								1
20-24	3	41	1							45
25-29	66	90	10							166
30-34	231	93	33	21	5					383
35-39	139	118	26	16	14	1				314
40-44	92	73	11	10	14	5	1			206
45-49	39	46	16	11	5	3	3			123
50-54	23	30	11	4	3	4	5	1		81
55-59	24	30	14	6	6	5	3	3		91
60-64	19	17	7	5	3	3	6	2	3	65
65-69	17	11	5	2	3	3	2			43
70+	8	12	7	9	5	3	4		1	49
w/o DOB	2	1								3
Number	663	563	141	84	58	27	24	6	4	1,570
Age										40.7
Service										3.8

ANNUITANTS CLASSIFIED BY AGE AS OF DECEMBER 31, 1992

Retirement Annuities

Age	Male Number	Annual Payments	Average Annual Payments	Female Number	Annual Payments	Average Annual Payments
20 - 24						
25 - 29	1	\$ 1,753.80	\$ 1,753.80			
30 - 34						
35 - 39	1	3,408.36	3,408.36			
40 - 44	3	12,600.00	4,200.00			
45 - 49	2	8,400.00	4,200.00			
50 - 54	1	8,603.16	8,603.16			
55 - 59	73	1,384,605.48	18,967.20	5	\$ 48,756.36	\$9,751.27
60 - 64	197	3,896,270.04	19,778.02	25	226,044.96	9,041.80
65 - 69	442	7,301,096.64	16,518.32	83	630,115.20	7,591.75
70 - 74	467	6,505,036.20	13,929.41	175	1,200,555.12	6,860.31
75 - 79	324	3,474,590.16	10,724.04	208	1,178,825.16	5,667.43
80 - 84	175	1,606,044.12	9,177.39	139	664,974.72	4,783.99
85 - 89	66	530,061.00	8,031.23	82	378,057.60	4,610.46
90 - 94	16	88,149.00	5,509.31	35	151,579.80	4,330.85
95 - 99	3	12,785.40	4,261.80	10	42,953.52	4,295.35
100-105				1	4,224.48	4,224.48
Totals	<u>1,771</u>	<u>\$24,833,403.36</u>	<u>\$14,022.25</u>	<u>763</u>	<u>\$4,526,086.92</u>	<u>\$5,931.96</u>
Average Age			<u>72</u>			<u>77</u>

Spouse Annuities (Not Including Compensation)

20 - 24						
25 - 29						
30 - 34				4	\$12,000.00	\$3,000.00
35 - 39				8	26,400.00	3,300.00
40 - 44				8	38,790.12	4,848.77
45 - 49				24	101,163.36	4,215.14
50 - 54				47	198,075.84	4,214.38
55 - 59				72	373,358.40	5,185.53
60 - 64	2	9,020.16	4,510.08	126	560,912.64	4,451.69
65 - 69	2	7,200.00	3,600.00	214	1,006,615.68	4,703.81
70 - 74	4	18,695.52	4,673.88	272	1,166,379.72	4,288.16
75 - 79	7	25,200.00	3,600.00	271	1,063,201.68	3,923.25
80 - 84	6	21,600.00	3,600.00	186	718,299.24	3,861.82
85 - 89	1	3,600.00	3,600.00	71	270,329.16	3,807.45
90 - 94				30	108,186.72	3,606.22
95 - 99				4	14,400.00	3,600.00
100-105						
Totals	<u>22</u>	<u>\$85,315.68</u>	<u>\$3,877.99</u>	<u>1,337</u>	<u>\$5,658,112.56</u>	<u>\$4,231.95</u>
Average Age			<u>75</u>			<u>72</u>

**HEALTH INSURANCE SUPPLEMENT
CLASSIFIED BY AGE AS OF DECEMBER 31, 1992**

Retirement Annuitants

Age	Single Coverage	Family Coverage	Total Participants	Total Non-Part.	Total Annuitants	% Part/Annuitants
Less 30	0	0	0	1	1	0.00%
30 - 39	0	1	1	0	1	100.00%
40 - 49	2	0	2	3	5	40.00%
50 - 59	24	43	67	12	79	84.81%
60 - 69	254	346	600	147	747	80.32%
70 - 79	449	384	833	341	1,174	70.95%
80 - 89	191	85	276	186	462	59.74%
Over 90	<u>15</u>	<u>1</u>	<u>16</u>	<u>49</u>	<u>65</u>	<u>24.62%</u>
Total	935	860	1,795	739	2,534	70.84%

Spouse Annuitants¹

Less 30	0	0	0	0	0	N/A
30 - 39	2	4	6	6	12	50.00%
40 - 49	8	5	13	19	32	40.63%
50 - 59	51	5	56	63	119	47.06%
60 - 69	175	5	180	164	344	52.33%
70 - 79	248	5	253	301	554	45.67%
80 - 89	102	1	103	161	264	39.02%
Over 90	<u>9</u>	<u>0</u>	<u>9</u>	<u>25</u>	<u>34</u>	<u>26.47%</u>
Total	595	25	620	739	1,359	45.62%

¹ Does not include widow compensation.

NEW ANNUITIES GRANTED DURING 1992

	Male Annuitants	Female Annuitants	Widows/ Widowers of Deceased Employees	Widows/ Widowers of Deceased Annuitants
Number Retired	166	22	22	65
Average Age Attained	64.9	67.2	51.6	70.6
Average Length of Service	27.0	27.8	17.1	N/A
Average Annual Salary (4 out of 10)	\$30,084	\$16,368	N/A	N/A
Average Annual Final Salary	\$34,188	\$17,460	\$29,976	N/A
Total Annual Annuity	\$2,977,214	\$220,707	\$135,894	\$354,278
Average Annual Annuity	\$17,935	\$10,032	\$6,177	\$5,450
Total Liability (8.0% UP-1984)	\$31,859,027	\$2,430,193	\$1,479,956	\$2,852,655
Average Liability	\$191,922	\$110,463	\$67,270	\$43,887
Total Contributed by Employee ¹	\$5,825,803	\$228,909	\$714,413	N/A
Average Contribution	\$35,095	\$10,405	\$32,473	N/A
Expected Future Lifetime (years)	15.35	16.71	29.50	14.69
Payback Period (years)	1.96	1.04	5.26	N/A
Replacement Ratio	52.5%	57.5%	20.6	N/A
Liability/Salary	5.61	6.33	2.24	N/A
Liability/Contributions	5.47	10.62	2.07	N/A

¹ Includes "Pickup."

RETIREES AND BENEFICIARIES BY TYPE OF BENEFIT

Last 13 Years

Year	Employee Annuitants	Spouse Annuitants ¹	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

¹ 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

**HISTORY OF NEW ANNUITIES GRANTED
1975 - 1992**

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 ¹	0 ¹	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

¹ No differentiation between widows of deceased employees or annuitants in 1975.

HISTORY 1965 TO 1992

History of Average Annual Salaries - Entire Fund

Year End	Members in Service ¹	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	2.3%	1.00%	1.4%
1966	7,995	0.7	47,598,552	3.8	5,954	3.0	1.00	2.9
1967	8,102	1.3	52,268,304	9.8	6,451	8.3	1.75	2.7
1968	7,891	(2.6)	56,165,136	7.5	7,118	10.3	1.75	4.3
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	5.6
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	2.9
1973	6,752	(3.1)	73,108,848	4.5	10,828	7.9	3.50	6.2
1974	6,638	(1.7)	78,526,728	7.4	11,830	9.3	5.00	10.7
1975	7,032	5.9	89,276,280	13.7	12,696	7.3	5.00	7.9
1976	6,811	(3.1)	90,487,008	1.4	13,285	4.6	5.00	4.8
1977	6,752	(0.9)	98,029,296	8.3	14,519	9.3	5.00	6.4
1978	6,613	(2.1)	103,399,152	5.5	15,636	7.7	5.00	8.6
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	14.4
1981	5,765	(1.4)	118,054,512	8.5	20,478	10.0	5.00	9.6
1982	5,970	3.6	134,293,920	13.8	22,495	9.8	6.00	6.8
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 ³	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	2.0
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	5.1
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	4.1
1992	4,022	(6.6)	141,618,648 ⁴	(5.0)	35,211	1.7 ²	6.00	2.9

Average Increase
(Decrease) for the
Last 5 Years

(3.7)%

1.0%

4.9%

4.3%

Average Last
10 Years

(3.8)%

0.6%

4.6%

3.9%

¹ Includes those members who were on disability.

² Average annual increase in salary 1965-1992, about 6.9% compounded. The average increase in the Chicago CPI for the same period is about 5.7%.

³ Total salaries include the 7% Board of Education "pick up" for the first time due to a change in the law.

⁴ Does not include 1992 3% retroactive salary increase for City employees paid in 1993.

HISTORY OF TOTAL ANNUITIES

Employee Annuitants (Male and Female)

Year End	Number of Annuitants	Total Annuities	Average Annuities
1970	1,651	\$ 2,779,061	\$ 1,683
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

Spouse Annuitants (Not Including Compensation)

1970	928	\$ 673,352	\$ 726
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

HISTORY OF INVESTMENT YIELDS

Year	Book Value							
	Investment Yield on Total Assets				Investment Yield on Invested Assets			
	Excluding Gains/Losses		Including Gains/Losses		Excluding Gains/Losses		Including Gains/Losses	
1974	6.58 %		3.55 %		6.98 %		3.76 %	
1975	7.25		6.17		7.73		6.58	
1976	7.23		6.98		7.65		7.39	
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% ¹	11.14	11.07% ¹	9.79	9.72% ¹	11.64	11.57% ¹
1984	9.67	9.58 ¹	8.88	8.79 ¹	10.12	10.03 ¹	9.30	9.21 ¹
1985	8.89	8.72 ¹	16.34	16.17 ¹	9.27	9.10 ¹	17.07	16.89 ¹
1986	7.44	7.14 ¹	16.06	15.74 ¹	7.72	7.41 ¹	16.69	16.34 ¹
1987	6.50	6.20 ¹	11.90	11.59 ¹	6.71	6.40 ¹	12.29	11.96 ¹
1988	6.81	6.55 ¹	7.78	7.52 ¹	7.00	6.73 ¹	7.99	7.72 ¹
1989	7.06	6.71 ¹	11.50	11.14 ¹	7.21	6.85 ¹	11.75	11.38 ¹
1990	7.05	6.69 ¹	7.67	7.31 ¹	7.22	6.85 ¹	7.85	7.48 ¹
1991	6.45	6.11 ¹	10.53	10.18 ¹	6.61	6.27 ¹	10.80	10.44 ¹
1992	<u>5.93</u>	<u>5.56¹</u>	<u>9.00</u>	<u>8.63¹</u>	<u>6.06</u>	<u>5.69¹</u>	<u>9.21</u>	<u>8.83¹</u>
5-Yr. Avg.	6.66 %	6.32 %	9.30 %	8.96 %	6.82 %	6.48 %	9.52 %	9.17 %

Year	Actuarial Assumption	Average Insurance Company	30 Year Treasury	3-Month Treasury Bills	Market Value ¹	
					Investment Yield on Total Assets	Investment Yield on Invested Assets
1974	5.00 %	6.25 %	N/A	7.886 %		
1975	5.00	6.36	N/A	5.838		
1976	6.00	6.55	N/A	4.989		
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 % ¹	7.68 % ¹
1985	7.00	9.63	10.79	7.470	22.41 ¹	23.37 ¹
1986	7.50	9.35	7.80	5.970	12.33 ¹	12.77 ¹
1987	7.50	9.10	8.59	5.820	3.67 ¹	3.78 ¹
1988	7.50	9.03	8.96	6.690	10.84 ¹	11.09 ¹
1989	8.00	9.10	8.45	8.120	16.95 ¹	17.32 ¹
1990	8.00	8.89	8.61	7.510	2.46 ¹	2.52 ¹
1991	8.00	8.63	8.14	5.420	19.28 ¹	19.77 ¹
1992	8.00	<u>N/A</u>	<u>7.67</u>	<u>3.450</u>	<u>7.94¹</u>	<u>8.11¹</u>
5-Yr. Avg.		8.95 %	8.37 %	6.238 %	11.49 %	11.76 %

¹ Investment income is net of investment expense. 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.

LEGISLATIVE CHANGES

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.
- 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.

LEGISLATIVE CHANGES

- 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).
 - 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%.

LEGISLATIVE CHANGES

- 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.
- The impact of the Early Retirement Incentive plan for terminations from December 31, 1992 to June 30, 1993 has not been reflected in this valuation. Actual experience will be reflected in the 1993 valuation. It has been estimated that approximately 30% of those eligible will retire under ERI. The increase in accrued liability is estimated to be \$17.571 million which will be offset by an estimated \$1.970 million employee contribution and \$2.700 million employer contribution which will be received later.
- A retroactive salary increase for 1992 City employees was received in 1993. It has not been reflected in this valuation but will be reflected next year.

HISTORY OF RECOMMENDED EMPLOYER MULTIPLES

Year of Report	Statutory Multiple	Normal Cost Plus Interest	Normal Cost Plus 40 Year Amortization	Normal Cost Plus 40 Year % of Salary Amortization
1974	1.235	1.48	---	---
1975	1.280	1.33	---	---
1976 ^a	1.325	1.54	1.62	1.24
1977	1.370	1.53	1.62	1.24
1978 ^a	1.370	1.69	1.78	1.38
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 ^a	1.370	1.34	1.40	1.03
1983 ^b	1.370	1.54	1.60	1.21
1984	1.370	1.58	1.63	1.30
1985 ^{a, b}	1.370	1.60	1.64	1.33
1986 ^{a, b}	1.370	0.99	1.00	0.94
1987 ^{a, b}	1.370	1.13	1.15	1.03
1988 ^a	1.370	1.03	1.04	0.98
1989 ^{a, b}	1.370	0.56	0.56	0.56
1990 ^{a, b}	1.370	1.01	1.02	0.93
1991 ^b	1.370	0.93	0.94	0.90
1992	1.370	0.80	0.80	0.80

^a Change in actuarial assumptions

^b Change in benefits

HISTORY OF FINANCIAL INFORMATION

History of Change in Unfunded Liability

Year	Salary Scale	Investment	Contribution	Amendments
1978	\$ 999,265	\$ 1,250,567	\$ (86,848)	\$ 0
1979	9,603,360	(1,250,488)	(104,786)	0
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
Totals	\$ (7,749,900)	\$(156,258,590)	\$(44,219,522)	\$153,596,063

Year	Assumptions	Miscellaneous	Total
1978	\$ 4,719,124	\$ 926,635	\$ 7,808,743
1979	0	(4,182,778)	4,065,308
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)
Totals	\$(68,945,498)	\$ 12,638,220	\$(110,939,227)

Over the last 15 years, the unfunded liability has decreased by \$110.9 million. The biggest component of increase has been benefit changes which account for \$153.6 million, followed by miscellaneous changes due to actuarial experience (retirement, disability, death and withdrawal) of \$12.6 million. The components which reduced the unfunded liability over the same period were investment earnings in excess of the assumed amount of \$156.3 million; followed by changes in actuarial assumptions of \$68.9 million; followed by more than adequate contributions (on the interest only basis) of \$44.2 million; followed by salary increase under the assumed amount of \$7.7 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)
1973	\$197,782,050	\$128,624,035	65.0%	\$ 69,158,015	\$ 73,108,848	95 %
1974	215,636,093	137,709,821	63.9	77,926,272	78,526,728	99
1975	242,216,859	151,749,085	62.7	90,467,774	89,276,280	101
1976 ^a	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 ^a	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 ^a	391,353,993	281,708,565	72.0	109,645,428	134,293,920	82
1983 ^b	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 ^{a, b}	495,844,974	420,554,173	84.8	75,290,801	125,594,688	60
1986 ^{a, b}	507,984,848	489,403,006	96.3	18,581,842	128,601,816	14
1987 ^{a, b}	583,284,026	546,947,052	93.8	36,336,974	135,453,096	27
1988 ^a	604,440,661	584,899,234	96.8	19,541,427	132,685,608	15
1989 ^{a, b}	633,894,540	646,313,443	101.9	(12,418,903)	142,024,296	(9)
1990 ^{a, b}	716,604,604	687,103,206	95.9	29,501,398	145,612,704	20
1991 ^b	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)

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
1977	\$ 67,977,467	\$ 73,608,310	\$141,585,777	\$186,428,466	\$ (44,842,689)	132 %
1978 ^a	77,603,101	78,072,062	155,675,163	202,643,520	(46,968,357)	130
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 ^a	113,743,284	94,516,563	208,259,847	281,708,565	(73,448,718)	135
1983 ^b	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 ^{a, b}	158,514,452	117,882,073	276,396,525	420,554,173	(144,157,648)	152
1986 ^{a, b}	179,881,434	122,432,246	302,314,080	489,403,006	(187,088,926)	162
1987 ^{a, b}	215,483,599	126,554,299	342,037,898	546,947,052	(204,909,154)	160
1988 ^a	229,024,543	133,793,756	362,818,299	584,899,234	(222,080,935)	161
1989 ^{a, b}	241,519,125	143,445,325	384,964,450	646,313,443	(261,348,993)	168
1990 ^{a, b}	271,401,625	150,398,932	421,800,557	687,103,206	(265,302,649)	163
1991 ^b	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

^a Change in valuation assumptions

^b 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

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 State Statutes (Chapter 108 1/2, 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, 1992 was \$141,618,648. At December 31, 1992 the Laborers' Plan membership consisted of:

Retirees and beneficiaries currently receiving benefits (includes disabilities)	4,208
Terminated employees entitled to benefits or a refund of contributions but not yet receiving them	1,570
Current employees	4,022

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 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.

An Early Retirement Incentive plan included in Senate Bill 1650 which was adopted after the date of this study has not been included in this valuation.

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, 1992. Significant actuarial assumptions used in the valuation for 1992 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.

At December 31, 1992, the excess of assets over the pension benefit obligation was \$104,740,529. At December 31, 1991, this excess was \$70,529,918.

Pension Benefit Obligation (PBO)	1991	1992
APV of Credited Projected Benefits		
Payable to Retirees and Beneficiaries	\$291,757,778	\$311,642,762
Current Employees:		
Accumulated Employee Contributions	156,649,525	161,298,914
Payable to Vested and Non-Vested Current Employees	<u>227,323,700</u>	<u>219,958,981</u>
Total APV	675,731,003	692,900,657
Net Assets Available for Benefits, at Cost (Market Value \$821,480,208; \$873,771,679)	<u>746,260,921</u>	<u>797,641,186</u>
Assets Over APV (Excess)	\$(70,529,918)	\$(104,740,529)
Percentage Funded	110.44%	115.12%
Surplus APV as Percent of Payroll	47.32	73.96

GASB DISCLOSURE**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.

For the year 1992 (based on a 1992 multiple of 1.37), the City contributed (after tax levy losses of 4%) \$16,574,721 or 11.12% of payroll. For 1992, the employee contributions were \$13,025,003 or 8.74% of payroll. As the current cost requirement for the entry age normal method plus the requirement for interest only on the unfunded liability was 15.28% of payroll, an excess of 4.58% of payroll or \$6,823,103 was contributed. Such contribution is applied to amortize any unfunded liability.

It is estimated for 1993 that contributions will again more than meet the standard. SB 1650, the Early Retirement Incentive plan (ERI), adopted after the date of this study, is expected to have an impact on the Fund. The experience will develop in 1993. Preliminary estimates assuming a 30% utilization of the ERI indicate that the unfunded liabilities may increase about \$12.9 million. Consideration should also be given to the steady decline in membership and the future cash flow requirements of the Fund. The additional retirements due to the Early Retirement Incentive will add to the decline.

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			
1983 ^a	\$17,083,585	\$24,484,651	\$25,070,322	\$21,442,931	12.72%	18.23%	18.67%	15.97%
1984 ^b	17,764,567	25,818,914	26,456,281	22,731,331	13.52	19.66	20.14	17.31
1985	19,299,995	26,200,791	26,746,874	23,555,414	14.70	19.95	20.37	17.94
1986 ^{a,b}	19,870,609	24,965,655	25,330,252	22,617,955	15.82	19.88	20.17	18.01
1987 ^{a,b}	18,826,921	20,171,065	20,249,927	19,681,589	14.64	15.68	15.75	15.30
1988 ^{a,b}	20,008,465	22,636,952	22,791,167	21,679,777	14.77	16.71	16.83	16.01
1989	19,803,585	21,217,142	21,300,076	20,702,389	14.93	15.99	16.05	15.60
1990 ^{a,b}	17,819,965	17,819,965	17,819,965	17,819,965	12.55	12.55	12.55	12.55
1991 ^{a,b}	20,777,427	23,048,446	23,158,027	22,235,069	14.27	15.83	15.90	15.27
1992 ^b	21,637,649	22,776,621	22,831,579	22,368,692	14.52	15.28	15.32	15.01
1993	20,256,024	20,256,024	20,256,024	20,256,024	14.31	14.31	14.31	14.31

Actual Employer and Employee Contribution

Year	E	F	E	F
	Employer	Employee	Expressed as a Percentage of Salary Beginning of Year	
1983 ^a	\$13,681,225	\$11,608,537	10.19%	8.64%
1984 ^b	14,996,619	11,531,243	11.42	8.78
1985	15,035,039	11,569,775	11.45	8.81
1986 ^{a,b}	14,765,250	11,691,095	11.76	9.31
1987 ^{a,b}	14,745,709	11,774,209	11.47	9.16
1988 ^{a,b}	15,157,663	11,740,621	11.19	8.67
1989 ^a	15,257,738	12,529,606	11.50	9.44
1990 ^{a,b}	17,029,493	12,805,486	11.99	9.02
1991 ^{a,b}	15,989,678	13,691,711	10.98	9.40
1992 ^b	16,574,721	13,025,003	11.12	8.74
1993 ^{b,est}	17,325,120	12,037,585	12.24	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		
1983 ^a	\$ (805,111)	\$ (219,440)	\$ (3,846,831)	(0.60)%	(0.16)%	(2.86)%
1984 ^b	(708,948)	(71,581)	(3,796,531)	(0.54)	(0.05)	(2.89)
1985	(404,023)	142,060	(3,049,400)	0.31	0.11	(2.32)
1986 ^{a,b}	(1,490,690)	(1,126,093)	(3,838,390)	(1.19)	(0.90)	(3.06)
1987 ^{a,b}	(6,348,853)	(6,269,991)	(6,838,329)	(4.94)	(4.88)	(5.32)
1988 ^{a,b}	(4,261,332)	(4,107,117)	(5,218,507)	(3.15)	(3.03)	(3.85)
1989 ^a	(6,570,202)	(6,487,268)	(7,084,955)	(4.95)	(4.89)	(5.34)
1990 ^{a,b}	(12,015,014)	(12,015,014)	(12,015,014)	(8.46)	(8.46)	(8.46)
1991 ^{a,b}	(6,632,943)	(6,523,362)	(7,446,320)	(4.55)	(4.48)	(5.11)
1992 ^b	(6,823,103)	(6,768,145)	(7,231,032)	(4.58)	(4.54)	(4.85)
1993 ^{est}	(9,101,538)	(9,101,538)	(9,101,538)	(6.43)	(6.43)	(6.43)

^a Change in actuarial assumptions

^b Change in benefits

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 1992, 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

Employer Contributions

Year	Required Normal Cost Plus Interest Only Basis	Required Statutory Basis ¹	Actual ²
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

¹ Tax levy after 4% overall loss.

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

GASB DISCLOSURE
Income and Payouts

Year End	Employee Contributions ¹	Employer Contributions ²	Investment Income ³	Total Income	
1974	\$ 6,597,012	\$ 6,103,125	\$ 4,646,080	\$ 17,346,217	
1975	7,375,222	6,699,000	8,665,212	22,739,434	
1976	7,887,179	7,287,000	10,785,585	25,959,764	
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	

Year End	Administrative and Investment Benefits	Expenses	Refunds ⁶	Total	Income Less Pay Outs ⁴
1974	\$ 6,329,476	\$ 231,455	\$1,438,356	\$ 7,999,287	\$ 9,346,930
1975	7,028,933	261,733	1,400,097	8,690,763	14,048,671
1976	7,710,946	288,228	1,483,562	9,482,736	16,477,028
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 ⁵
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

Statistical material required by Government Accounting Standards Board

¹ Includes deductions in lieu for disability.

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

³ Includes realized net loss on sale and exchange of bonds.

⁴ Does not include prior year adjustments for taxes for years before 1991.

⁵ Does not include adjustment for payables and receivables.

⁶ Includes adjustments for payables and receivables beginning in 1991.

GASB DISCLOSURE

Analysis of Funding Progress¹

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 ^{a, b}	420,554,173	447,815,793	93.91	27,261,620	125,594,688	21
1986 ^{a, b}	489,403,006	455,604,084	107.42	(33,798,922)	128,601,816	(26)
1987 ^{a, b}	546,947,052	521,981,791	104.78	(24,965,261)	135,453,096	(18)
1988 ^a	584,899,234	541,629,895	107.99	(43,269,339)	132,685,608	(33)
1989 ^{a, b}	646,313,443	568,750,487	113.64	(77,562,956)	142,024,296	(55)
1990 ^{a, b}	687,103,206	637,028,116	107.86	(50,075,090)	145,612,704	(34)
1991 ^b	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)

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.

¹ 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.

^a Change in actuarial assumptions

^b 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
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

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

Expected Average Age of Retirement

Present Membership	60.90
New Hires	61.61

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	<u>Mortality</u>			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 ¹	1.08
1983	.98 ²	1.49 ²	1.66 ²	.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 ¹	.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 ¹	.64
1992	1.27	1.19	1.23	1.17	.79

¹ New retirement rates

² New mortality rates

ACTUARIAL EXPERIENCE

Attained Age at Retirement, 1992

Age	Age at Entrance - Male									Total
	22	27	32	37	42	47	52	57	62	
55	7	2	1			1				11
56	4	2					1			7
57	1		1							2
58	3	1	1							5
59	2	1	1	2	2					8
60	3	2								5
61	1	1	2	1		1				6
62	7		4	4	1					16
63	1	2	2	1	1			1		8
64			6	3	1	1	1			12
65	2	2	3	3	4	3	2			19
66		1	1		3	3				8
67	2	1	1	2	1		1			8
68	2		2	2	2	1	1			10
69	2	1	2		3			1		9
70			2		1	2	1		2	8
Total	39	16	29	18	19	12	7	2	2	144

22 male employees retired before age 55 or after age 70 in 1992.

Age	Age at Entrance - Female									Total
	22	27	32	37	42	47	52	57	62	
55										
56		1								1
57										
58										
59										
60										
61			2	1						3
62			1							1
63			1							1
64				1						1
65				1						1
66			1	1						2
67				1						1
68										
69					2					2
70				1	5					6
Total	0	1	5	6	7	0	0	0	0	19

3 female employees retired before age 55 or after age 70 in 1992.

IMPACT STATEMENT

Fund	Laborers'
Annual Payroll	\$141,618,648
Active Members	4,022
Valuation Date	December 31, 1992

Present Plan

(1) Accrued Pension Liability	\$777,385,162
(2) Present Assets	797,641,186
(3) Unfunded Liability = (1) - (2)	(20,256,024)
(4) Funded Ratio = (2)/(1)	102.61%

Direction of Financial Condition

		Per Active	Percent of Salary
(5) Minimum Recommended Annual Contribution	\$20,261,167	5,038	14.31%
(6) Estimated Annual Employer Contribution	17,325,120	4,308	12.24
(7) Estimated Annual Employee Contribution	12,037,585	2,993	8.50
(8) Deficiency (Excess) in Annual Contributions = (5) - (6) - (7)	(9,101,538)	(2,263)	(6.43)

PLAN SUMMARY

Participants

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 and prior to the attainment of age 55 by the adopting employee parent. 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 which continues for more than 5 years and which starts before the employee's age 60, the benefit 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	Contributions¹
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%

¹ 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.