

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

ACTUARIAL STATEMENT

DECEMBER 31, 1982

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CONSULTING ACTUARIES

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September 27, 1983

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, 1982 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 1982. This statement has been prepared from the 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.

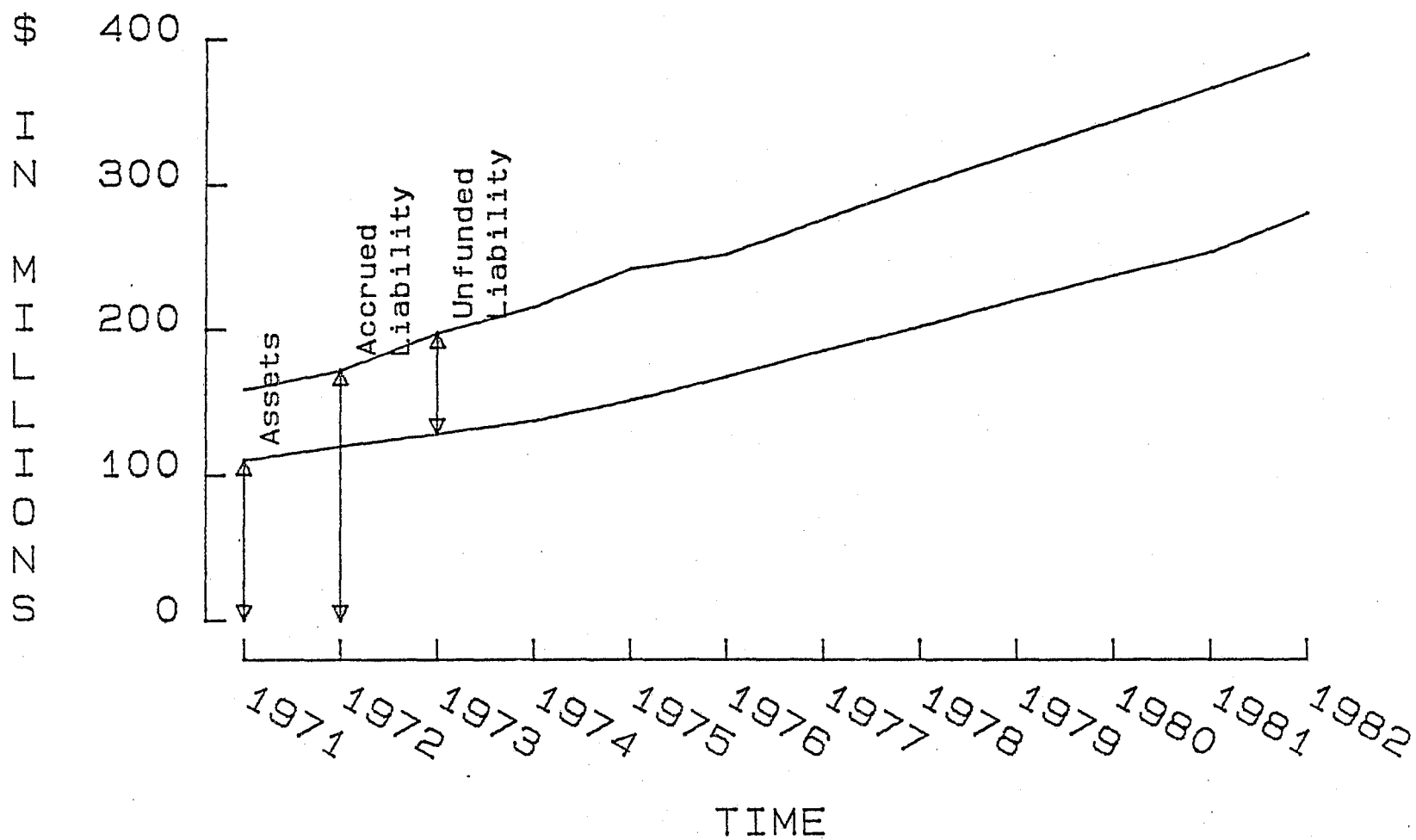
The method of valuation, or method of financing the system, and the actuarial assumptions and methods used in the valuation are shown in a separate Exhibit. The attempt is made to give effect to realistic valuation factors affecting costs.

## SUMMARY

The following represents a summary of 1982 Laborers' Actuarial Report:

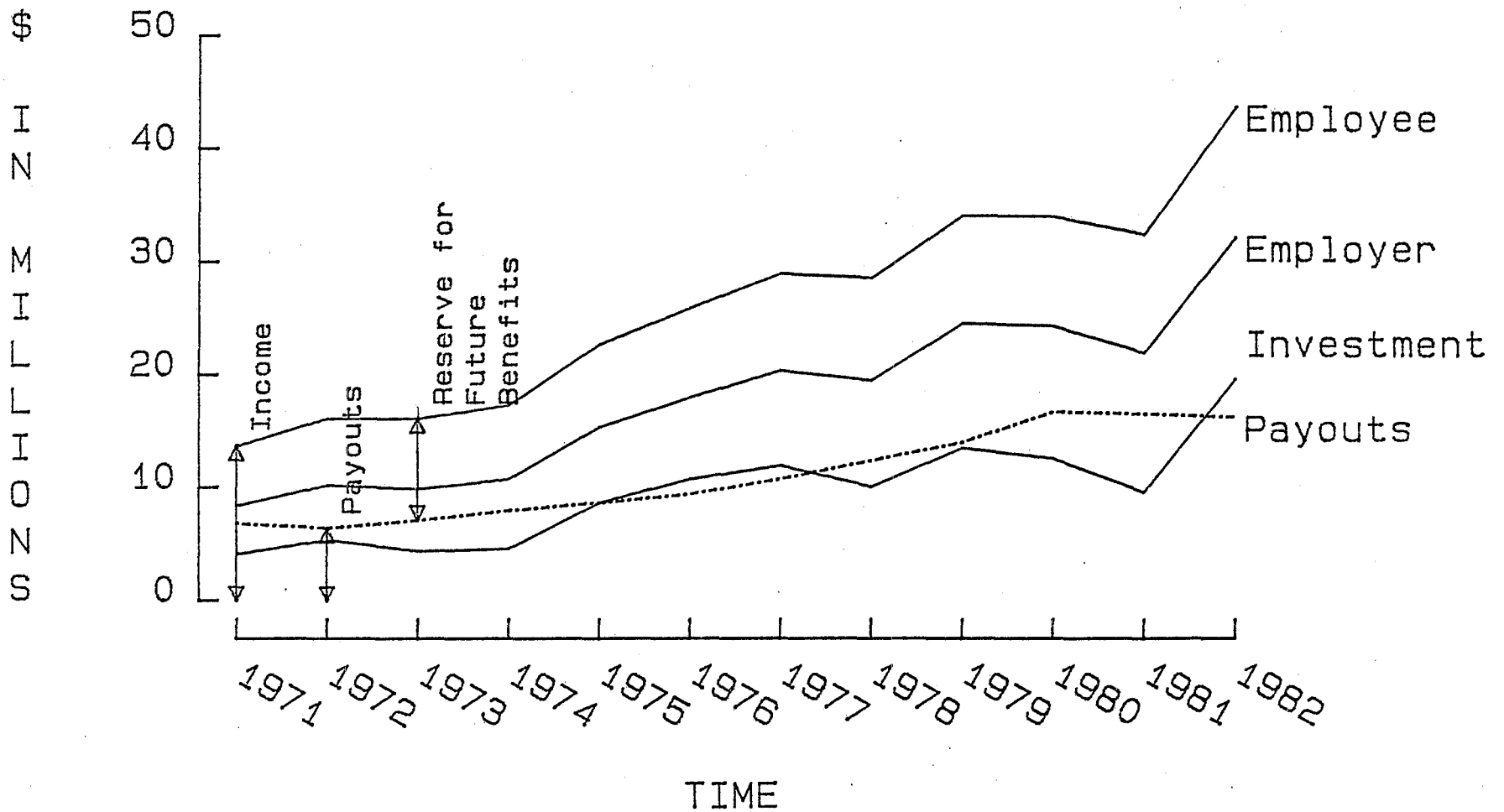
	Last Year	This Year New Assump. (w/o New Ben.)	This Year Old Assump. (w/o New Ben.)
INCOME: Investment	\$ 9,631,793	\$ 19,729,269	\$ 19,729,269
Employer	12,392,694	12,589,417	12,589,417
Employee	10,522,389	11,546,286	11,546,286
Total	32,546,876	43,864,972	43,864,972
OUTGO: Refunds, Benefits, Expenses	\$ 16,596,246	16,338,842	16,338,842
EXCESS OF INCOME OVER OUTGO:	\$ 15,950,630	27,526,130	27,526,130
ACTIVE PARTICIPANTS	5,765	5,970	5,970
BENEFICIARIES: Employee	2,469	2,475	2,475
Spouse	1,166	1,187	1,187
Disabilities	162	138	138
Children	137	109	109
Other - reversionary	1	1	1
ACTUARIAL:			
Assets (Total at book value)	\$254,234,605	\$281,708,565	\$281,708,565
Funded Ratio	69.09%	71.98%	70.15%
Accrued Liability	\$367,980,498	\$391,353,993	\$401,563,463
Termination Liability	\$195,669,796	\$208,259,847	\$209,919,848
Excess Upon Termination	\$ 58,564,809	\$ 73,448,718	\$ 71,788,717
Unfunded Liability	\$113,745,893	\$109,645,428	\$119,854,898
Annual Actuarial Requirement (ER & EE)	\$ 23,885,754	\$ 24,484,651	\$ 24,507,070
Expected Net Annual Actuarial Excess (Deficiency)	(\$ 1,275,121)	\$ 619,932	\$ 597,513
Required Employer Multiple	1.59	1.34	1.32
Amortization Period (Statutory multiple 1.37)	--	35 years	39 years
INVESTMENT:			
Yield (On Invested Assets including gains/losses)	4.29%	8.09%	8.09%
MISCELLANEOUS:			
Salary Roll	\$118,054,512	\$134,293,920	\$134,293,920
Average Salary	\$ 20,478	\$ 22,495	\$ 22,495

LABORERS' A & B FUND OF CHICAGO  
Assets, Unfunded Liability, Accrued Liability



# LABORERS' A & B FUND OF CHICAGO

## Income and Payouts



The graph of Assets, Unfunded Liability and Accrued Liability illustrates the Fund's position with respect to asset growth and accrued liability growth. Please note that the difference between the assets and the accrued liability is what is called unfunded liability.

The next 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 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 have attempted to learn what interest and salary scale assumptions are being used to anticipate the future in other public and private pension fund valuations.

A comprehensive study made in 1982 of 130 private pension plans based on 1981 actuarial reports indicated that the average interest assumption used was 6.4% and that the average salary scale assumption was 4.6%. We have also made a study of large public employee pension plans and found that the actuarial assumptions used for the rate of interest and rate of salary increase were somewhat higher. These ranged from 7% to 8% for interest and from 5-1/2% to 7% for salary. The rates have been steadily increasing since our last change in assumptions. Based on these studies, it is our opinion that for the Laborers' Fund, having evaluated past experience of investment earnings and having given effect both to locked in interest rates and to generally expected future interest earnings, a 6.75% future interest assumption is a reasonable rate for valuation purposes, and a 6% per year salary scale assumption is reasonable considering the generally accepted views on future salary increases for our national economy. These two assumptions could be characterized as being middle of the road.

The liabilities and costs in this report were based in part on a 6.75% per year interest assumption and a 6% per year salary scale assumption. The retirement rates used last year were modified this year to assume all employees retire by age 70. The mortality assumption has been upgraded to anticipate a future decrease in mortality to the UP-1984 Table, male and female. All other assumptions are the same as those used for the last report.

The changes in benefits recently signed by the Governor have not been included in this valuation. Beginning in January of 1984, the post-retirement increase will be 3% instead of 2%, and the maximum spouse annuity will be \$500 a month instead of \$400 a month. If these benefits had been included in the valuation, the unfunded liability would have increased \$25,870,036 to \$135,515,464, the funded ratio would have been 67.52% and the multiple would have been 1.61. These benefits will be included in the 1983 valuation.

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.

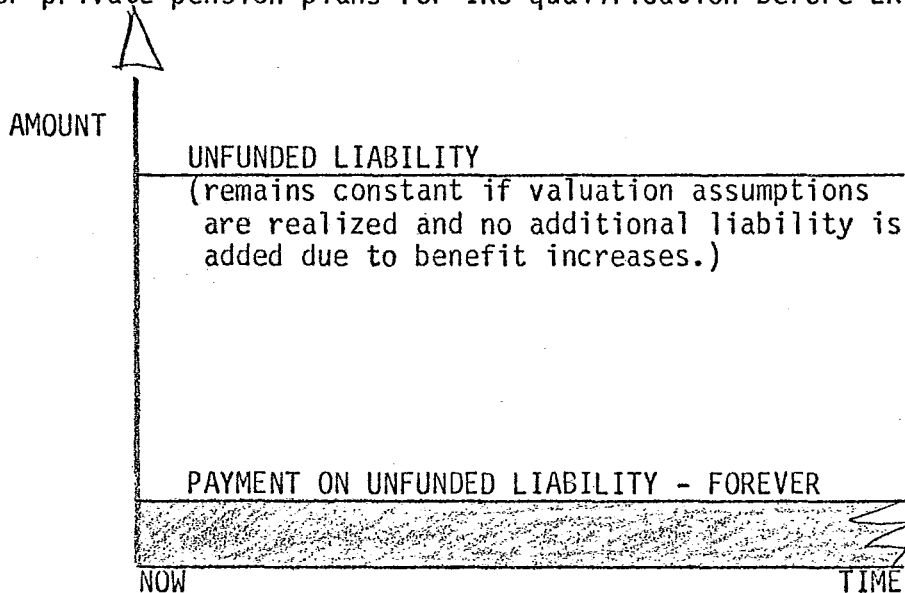
ALTERNATIVE VALUATIONS:

We are making 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 variations in future experience from the assumptions used. These will be submitted at a later time.

THREE METHODS OF FINANCING THE UNFUNDED LIABILITY:

1.) The method of valuation used for this report, is the same as for the last report. It is known as a Normal Cost-plus-Interest Basis 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 under 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.

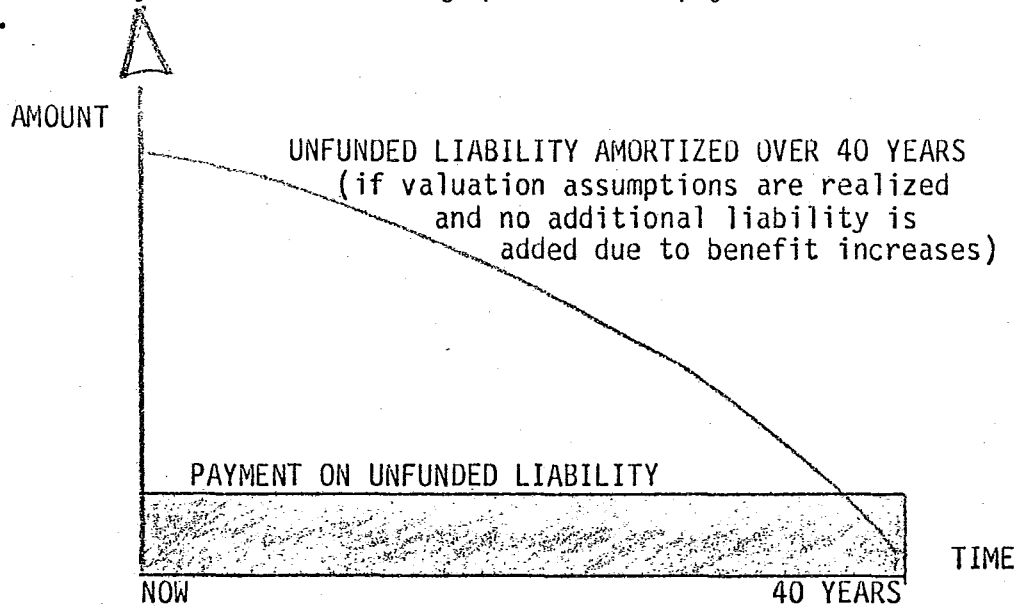
The normal cost plus interest only method of funding is that recommended by the Illinois Public Employees Pension Laws Commission. It was also the minimum required for private pension plans for IRS qualification before ERISA.



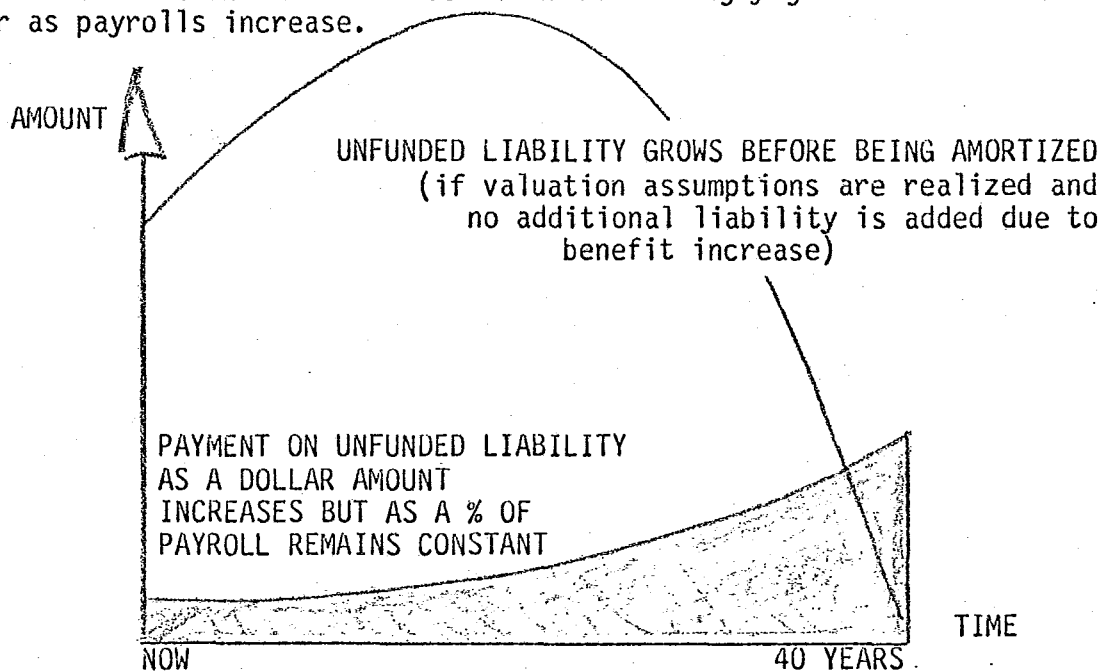
2.) ERISA now requires that initial unfunded liability be amortized over a forty year period.

The normal cost plus interest method and the Normal Cost Plus 40 Year Amortization method both 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 payrolls as future payrolls increase.



3.) An alternative method for funding that is receiving increased attention for public employee pension plans is a method which 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 funding method under ERISA. It may be more acceptable in view of the presumably permanent nature of public retirement systems, and the desire to place a relatively constant tax burden (as percentage of salary) on future generations of taxpayers.



For the Retirement Boards guidance, we have estimated the financial effects of different funding methods. The results are given in the following table:

	Required 1983 Tax Levy	Ultimate Required Multiple	Unfunded Liability Will	Portion Required For Amortization Of Unfunded Liability*
1) Normal Cost + Interest Only	\$13,614,238	1.34	Remain constant at \$109,645,428	\$7,401,066
2) ERISA: Normal Cost + 40 Year Amortization	\$14,224,312	1.40	Decrease to \$0	\$7,986,738
3) Normal Cost + 40 Yr. Level % of Payroll Increasing 4% a Year (Inflation Only)	\$10,445,779	1.03	Increase to \$150,781,067 in 20 years and decrease thereafter	\$4,359,346 in 1983 increases to \$21,482,731 in 40 Years
4) Present Law (Includes Park)	\$14,260,000	1.37		

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

The preceding comparative 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.

The level annual percent of payroll method results in substantially increasing costs and contributions in future years, especially at the end of a funding period.

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, declining fund membership.

#### REQUIRED ACTUARIAL CONTRIBUTION:

Based on the Normal Cost-Plus-Interest-Method of funding we find that the tax levy for 1983 should be \$13,614,238 which amount includes a 4% reserve for loss on collection. This amount is based on an annual payroll as of December 31, 1982 of \$134,293,920 and an active membership of 5,970 persons. The detail is as follows:

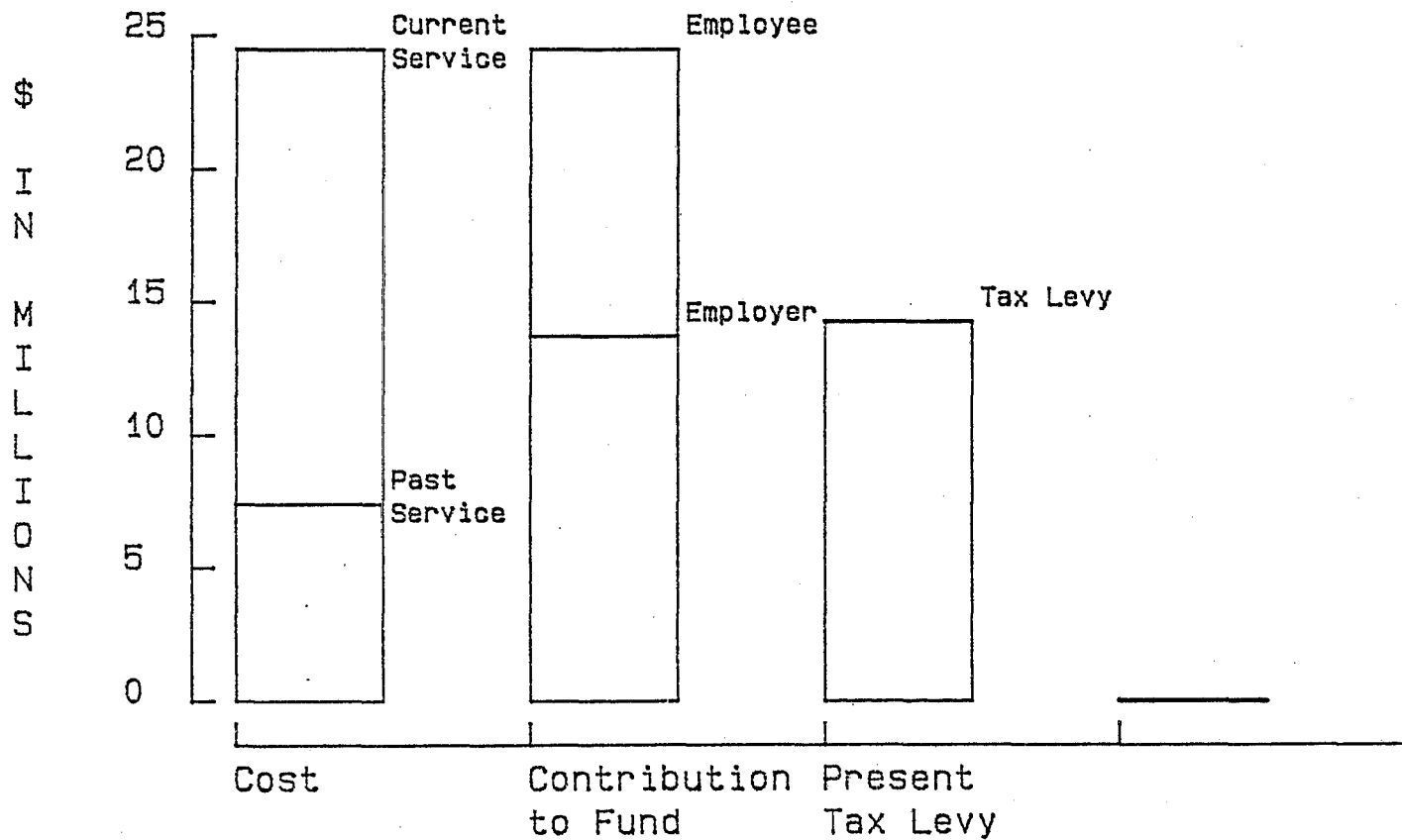
Detail of 1983 City Contribution:

	<u>Amount</u>	<u>Percent of Salary</u>	<u>Dollar Per Active</u>
1. Normal Cost - For Current Service	\$17,083,585	12.72%	\$2,862
2. <u>6 3/4% Interest on Unfunded Liability</u>	<u>\$ 7,401,066</u>	<u>5.51%</u>	<u>\$1,239</u>
3. <u>Total Actuarial Requirement (1)+(2)</u>	<u>\$24,484,651</u>	<u>18.23%</u>	<u>\$4,101</u>
4. Employee Contributions	\$11,414,983	8.50%	\$1,912
5. Employer Requirement (3)-(4)	\$13,069,668	9.73%	\$2,189
6. <u>Expected Net Employer Contribution from 1983 Tax Levy of \$14,260,000 after a 4% loss</u>	<u>\$13,689,600</u>	<u>10.19%</u>	<u>\$2,293</u>
7. Expected Net Annual Excess	\$ 619,932	.46%	\$ 104
8. Tax Levy Required (assume 4% loss)	\$13,614,238		
9. Required Ultimate Multiple	1.34		
10. Present Authorized Ultimate Multiple	1.37		
11. Amortization Period (level dollar amount) of Present Unfunded Liability	35 years		

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 following bar chart illustrates the annual actuarial cost (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).

LABORERS' A & B FUND OF CHICAGO  
 Annual Actuarial Cost 1983  
 (Normal Cost plus Interest Only)



<u>Detail of Normal Cost (given above)</u>	<u>% Salary</u>	<u>\$ Per Active</u>
Retirement Annuity	7.72%	\$1,737
Retirement Annuity Increase	1.10	248
Post-Retirement Spouse Annuity	.25	56
Spouse Annuity for Death in Service	.38	85
Child's Annuity	.08	19
Ordinary Disability	.96	215
Duty Disability	.29	64
Refunds	1.38	312
Widows Compensation	0	0
Expense of Administration	.47	105
Reciprocal Benefits	.09	21
	12.72%	\$2,862

CHANGE IN THE UNFUNDED LIABILITY:

The total unfunded liability as of December 31, 1982 is \$109,645,428. As of December 31, 1981, it was \$113,745,893. Using the old assumptions, the unfunded liability would have been \$119,854,898.

Detail of Change in Unfunded Liability:

1. Increase in Salaries over 5% Assumed	\$13,090,805	Increase
2. Investment Yield over 6% Assumed	(\$ 4,232,954)	Decrease
3. Excess in Annual Contribution:		
1982 Total Actuarial Requirement.....	\$23,885,754	
Less Employer Net to Fund 1982		
Tax Levy .....	12,589,417	
Less Employee Contributions for 1982..	<u>11,546,286</u>	( 249,949) Decrease
4. Miscellaneous Actuarial Changes	( 2,498,897)	Decrease
5. Change in Assumptions	<u>( 10,209,470)</u>	Decrease
Net Change in Unfunded Liability	(\$ 4,100,465)	Decrease

FUNDED RATIO:

The ratio of assets to liabilities is 71.98% as of December 31, 1982 - and was 69.09% as of December 31, 1981. This ratio represents the extent to which present and future benefit promises are secured by present assets. The funded ratio increased because assets increased 10.8% while the liabilities increased 6.4%. The funded ratio if done on the old assumptions would have been 70.15%.

RATIO OF ACTIVE EMPLOYEES TO ANNUITANTS & BENEFICIARIES:

The ratio of active employees to annuitants and beneficiaries is 1.53 as of December 31, 1982 and was 1.47 as of December 31, 1981. This ratio illustrates the relationship between the contributors and the beneficiaries.

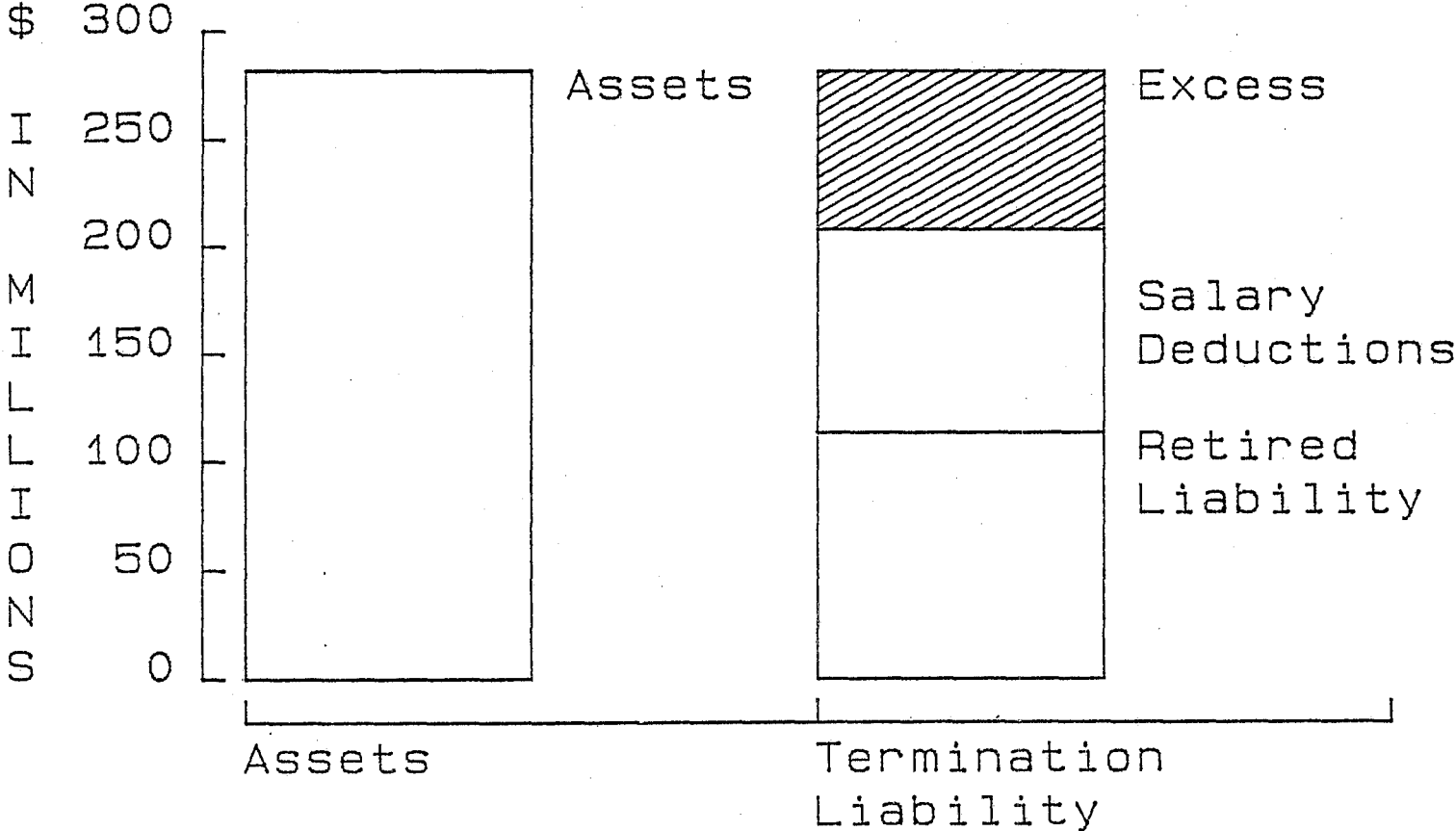
TERMINATION LIABILITY:

A measure of Plan funding is to compare the assets to liabilities for present annuitants and the amount of contributions of 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.

	<u>New Assumptions</u>	<u>Old Assumptions</u>
Liability for retired annuitants, widows & spouses of annuitants.....	\$113,743,284	\$115,403,285
Salary Deductions Contributed by Active Fund Members .....	<u>\$ 94,516,563</u>	<u>\$ 94,516,563</u>
Total .....	\$208,259,847	\$209,919,848
Assets at Book Value.....	<u>\$281,708,565</u>	<u>\$281,708,565</u>
Excess Upon Termination.....	\$ 73,448,718	\$ 71,788,717
Available Assets For Actives (with retired lives 100% funded).....	\$167,965,281	\$166,305,280
Available Per Active Employee	\$ 28,135	\$ 27,857
Refundable per Active Employee	\$ 15,832	\$ 15,832
Ratio of Available to Refundable	178%	176%

The following bar chart illustrates the remaining assets after terminating the plan (the hatched area) which when added to the salary deductions for active members plus the amount required as a retired life liability equals the assets.

LABORERS' A & B FUND OF CHICAGO  
Assets and Termination Liability



VESTED LIABILITY

This year for the first time 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 used in previous reports. This is because the value of a retirement annuity for an eligible employee is greater than the amount of his accumulated salary deductions.

Liability For Retired Annuitants, Widows and Spouses of Annuitants.....	\$113,743,284
Value of Active Employees Eligible To Retire...\$199,833,610	
Accumulated Salary Deductions of Active Employees Eligible for Refund and not Annuity.\$ 55,002,973	
Active Vested Liability.....	\$254,836,583
Total Vested Liability.....	\$368,579,867
Assets at Book Value.....	\$281,708,565
Unfunded Vested Liability.....	\$ 86,871,302

The average amount of assets required per active employee to provide for vested benefits as of the valuation date is \$42,686. 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 \$46,501.

THE FUTURE

As in the past - a continuous review of the Fund's operating experience is needed. 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 \$1.00 in salary increase over the 6% increases assumed in the salary scale the unfunded liability will be increased by about \$2.07. This will be in addition to the additional current annual service cost for every dollar in salary over the 6% salary scale assumed.

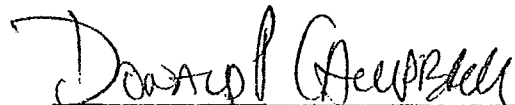
These additional costs will be reduced to some extent by the annual amount of investment income earned over the assumed 6.75% used for valuation purposes. The extent of the reduction will depend on the relative amounts of these two items.

The alternative funding methods indicate the imperative need to monitor Fund income if future Fund obligations are to be met.

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, however, 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 40 year period.

Respectfully submitted,

  
\_\_\_\_\_  
Donald F. Campbell, F.C.A., M.A.A.A.  
Enrolled Actuary # 1248

  
\_\_\_\_\_  
Donald P. Campbell, F.S.A., M.C.A., M.A.A.A.  
Enrolled Actuary #1498

DFC:jd



INDEX

<u>Statements:</u>		<u>Pages</u>
Exhibit A -	Actuarial Balance Sheet, Assets and Liabilities	16-18
B -	Income & Expenditures	19-21
C -	Comparative Analysis, Assets & Liabilities	22-24
D -	Taxes Receivable	25
 <u>Statistical Data:</u>		
E -	Membership Statistics	26
F -	Salary & Age Statistics	27-28
G -	Age & Service Distribution	29
H -	Annuitants Classified by Age	30
I -	New Annuities	31
 <u>Historical Data:</u>		
J -	History of Salaries	32
K -	History of Total Annuities	33
L -	History of Investment Yields	34
M -	History of Financial Information	35-37
N -	Actuarial Methods & Assumptions	38-40
O -	Service Table Functions	41-42
P -	Impact Statement	43
Q -	Plan Summary	44-47

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

ACTUARIAL BALANCE SHEET

AS OF

DECEMBER 31, 1982

ASSETS

AND

LIABILITIES

## LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

ASSETSACTUARIAL BALANCE SHEET AS OF DECEMBER 31, 1982

CASH:		
On Deposit		(\$ 4,921,531.35)
INVESTMENTS:		
Bonds - Par Value	\$221,073,106.56	
Bond Premiums & Discounts	( 33,351,935.74)	
Common Stocks - Cost	66,821,342.63	
Accrued Bond Interest	5,116,645.92	
Due from Broker	9,570.00	
Real Estate Separate Account	<u>11,018,551.77</u>	
Total Investments		\$270,687,281.14
ACCOUNTS RECEIVABLE - TAXES (See Exhibit "D")		
Replacement Tax From State	\$ 2,375,344.00	
Tax Extension	\$ 18,235,930.19	
Less: Estimates for Loss on Collection	<u>3,994,585.03</u>	
Net Taxes Receivable		\$ 16,616,689.16
OTHER ACCOUNTS RECEIVABLE:		
Salary Deductions Accrued	\$ 860,051.30	
Miscellaneous Employee Accounts	<u>46,862.14</u>	
Total Other Accounts Receivable		\$ 906,913.44
GROSS LEDGER ASSETS		<u>\$283,289,352.39</u>
LESS: ACCOUNTS PAYABLE:		
Miscellaneous Employee Accounts	\$ 1,579,229.38	
Military Service Deductions		
Excess from Refunds	<u>1,557.71</u>	
Total Accounts Payable		\$ 1,580,787.09
NET LEDGER ASSETS		<u>\$281,708,565.30</u>

## LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

LIABILITIES AND FUND BALANCESACTUARIAL BALANCE SHEET AS OF DECEMBER 31, 1982

ANNUITY PAYMENT FUND ACCOUNT:		
(Based on 4% Amer. Exp. & 3% Comb.)		
Employee Annuitants	\$37,119,303.48	
Employee Annuities Fixed	2,834,400.12	
Spouse Annuitants	14,124,627.96	
Spouses' Annuities Fixed	<u>7,658,481.97</u>	
Total Annuity Payment Fund		\$ 61,736,813.53
SALARY DEDUCTION FUND ACCOUNT:		
Employees	\$71,450,916.76	
Spouses of Employees	<u>15,784,357.58</u>	
Total Salary Deduction Fund		\$ 87,235,274.34
CITY CONTRIBUTION FUND ACCOUNT:		
Employees	\$67,579,159.81	
Spouses of Employees	22,008,945.64	
Supplemental Annuities	<u>12,696.72</u>	
Total City Contribution Fund		\$ 89,600,802.17
OTHER RESERVES:		
Supplementary Payment Reserve	\$ 88,453.87	
Annuity Payment Fund Account	<u>9,260,522.03</u>	
Total Other Reserves		\$ 9,348,975.90
PRIOR SERVICE FUND ACCOUNT:		
(Based on 4% Amer. Exp. & 3% Comb.)		
Employee Annuitants	\$54,518,764.80	
Employee Annuities Fixed	6,768,367.20	
Spouse Annuitants	2,495,900.16	
Spouses' Annuities Fixed	4,419,210.90	
Salary Deductions 2% Annuity	6,525,471.34	
Estimated Excess Liability (Note 1)	<u>68,704,413.02</u>	
Total Prior Service Account		<u>\$143,432,127.42</u>
TOTAL LIABILITIES		\$391,353,993.36
Obligations of Fund for Prior Service Liabilities (Note 1)		<u>(\$109,645,428.06)</u>
TOTAL NET LIABILITIES AND FUND BALANCES		<u>\$281,708,565.30</u>

Note 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 1982

INCOME

AND

EXPENDITURES

## LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

EXPENDITURES FOR YEAR 1982

TOTAL INCOME FORWARDED		\$43,864,972.35
ANNUITIES AND BENEFITS PAID:		
Employees' Annuities	\$10,193,364.43	
Spouses' Annuities	1,832,665.25	
Compensation Annuities	1,479.00	
Children's Annuities	110,910.97	
Ordinary Disability	1,284,328.78	
Duty Disability	382,787.56	
Supplementary Payments	53,154.36	
	<u>                    </u>	
Total Benefits Paid	\$13,858,690.35	
Reciprocal Act Re- imbursements	( 7,255.77)	
	<u>                    </u>	
Net Benefits Paid		\$13,851,434.58
EXPENSE OF ADMINISTRATION:		
Salaries:		
Regular Employees	\$ 105,865.27	
Blue Cross & Blue Shield	6,352.20	
Services:		
Legal Expense	14,400.00	
Medical Expense	14,400.00	
Actuarial	221,272.90	
Auditing	21,500.00	
Investment	114,000.00	
Premium on Insurance(3 yr.)	47,758.00	
Office Supplies and Equipment	3,462.65	
Printing and Stationery	15,609.69	
Postage	11,000.00	
Rent & Electricity	38,308.39	
Telephone & Telegraph	1,299.67	
Miscellaneous	11,543.35	
	<u>                    </u>	
Total Expenses		\$ 626,772.12
REFUNDS		<u>1,860,635.63</u>
TOTAL EXPENDITURES		<u>\$16,338,842.33</u>
EXCESS INCOME OVER EXPENDITURES		\$27,526,130.02
Net Change in Reserve for Loss on Collection and Taxes Receivable for Prior Years		( 52,169.87)
INCREASE IN NET ASSETS FOR YEAR		<u>\$27,473,960.15</u>

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

COMPARATIVE ANALYSIS

YEAR 1982

ASSETS

AND

LIABILITIES

## LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

COMPARATIVE ANALYSISLIABILITIES AND FUND BALANCES

	<u>1/1/1982</u>	<u>12/31/1982</u>	Increase (Decrease)
LIABILITY RESERVES:			
ANNUITY PAYMENT FUND:			
Employee Annuitants	\$ 34,872,835	\$ 37,119,303	\$ 2,246,468
Emp. Annuities Fixed	3,740,241	2,834,400	( 905,841)
Spouse Annuitants	12,946,289	14,124,628	1,178,339
Spouses' Annuities Fixed	7,307,237	7,658,482	351,245
Total	\$ 58,866,602	\$ 61,736,813	\$ 2,870,211
SALARY DEDUCTION FUND ACCOUNT:			
Employees	\$ 66,228,260	\$ 71,450,917	\$ 5,222,657
Spouses of Employees	14,496,350	15,784,358	1,288,008
Total	\$ 80,724,610	\$ 87,235,275	\$ 6,510,665
CITY CONT. FUND ACCOUNT:			
Employees	\$ 62,886,914	\$ 67,579,160	\$ 4,692,246
Spouses of Employees	20,364,540	22,008,945	1,644,405
Supplemental Annuities	13,196	12,697	( 499)
Total	\$ 83,264,650	\$ 89,600,802	\$ 6,336,152
OTHER RESERVES:			
Supplemental Pymt. Res.	\$ 141,608	\$ 88,454	(\$ 53,154)
Annuity Fund Account	8,829,990	9,260,522	430,532
Total	\$ 8,971,598	\$ 9,348,976	\$ 377,378
PRIOR SERVICE FUND ACCOUNT:			
Employee Annuitants	\$ 49,712,345	\$ 54,518,765	\$ 4,806,420
Emp. Annuities Fixed	4,311,767	6,768,367	2,456,600
Spouse Annuitants	2,192,945	2,495,900	302,955
Spouses' Annuities Fixed	3,694,662	4,419,211	724,549
Sal. Ded. 2% Annuity	5,766,663	6,525,471	758,808
Estimated Excess Liability	70,474,656	68,704,413	( 1,770,243)
Total	\$136,153,038	\$143,432,127	\$ 7,279,089
TOTAL LIABILITIES	\$367,980,498	\$391,353,993	\$23,373,495
UNFUNDED OBLIGATIONS	( 113,745,893)	( 109,645,428)	4,100,465
TOTAL NET LIABILITIES	\$254,234,605	\$281,708,565	\$27,473,960



## LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

TAXES RECEIVABLEDECEMBER 31, 1982

Year	<u>Uncollected Taxes 12-31-82</u>	<u>Estimate for Loss 12-31-81</u>	<u>Additional Est. Setup 12-31-82</u>	<u>Total Est. for loss 12-31-82</u>	<u>Taxes Collectible 12-31-82</u>
<b>CITY:</b>					
1978	\$ 2,112,267.39	\$2,052,001.00	\$	\$2,052,001.00	\$ 60,266.39
1979	394,208.25	394,199.03		394,199.03	9.22
1980	847,141.07	447,221.00		447,221.00	399,920.07
1981	4,119,831.77	556,956.00		556,956.00	3,562,875.77
1982	10,724,656.00		536,233.00	536,233.00	10,188,423.00
	<u>\$18,198,104.48</u>	<u>\$3,450,377.03</u>	<u>\$ 536,233.00</u>	<u>\$3,986,610.03</u>	<u>\$14,211,494.45</u>
1982	\$ 2,375,344.00	Replacement tax due from State			\$ 2,375,344.00
	<u>\$20,573,448.48</u>				<u>\$16,586,838.45</u>
<b>PARK DISTRICT:</b>					
1978	\$ 6,115.80	\$ 3,875.00	\$	\$ 3,875.00	\$ 2,240.80
1979	2,923.51	1,400.00		1,400.00	1,523.51
1980	0.00	1,208.93	( 1,208.93)	0.00	0.00
1981	1,786.40	1,350.00		1,350.00	436.40
1982	27,000.00	0.00	1,350.00	1,350.00	25,650.00
	<u>\$ 37,825.71</u>	<u>\$ 7,833.93</u>	<u>\$ 141.07</u>	<u>\$ 7,975.00</u>	<u>\$ 29,850.71</u>
<b>TOTAL:</b>					
	<u>\$20,611,274.19</u>	<u>\$3,458,210.96</u>	<u>\$ 536,374.07</u>	<u>\$3,994,585.03</u>	<u>\$16,616,689.16</u>

Note: The loss on the 1982 tax levy was 5%. Due to the 100% collection of the personal property replacement tax, the overall loss is 4%. The statutory requirement of \$13,127,000.00 is the sum of \$13,100,000.00 plus \$27,000.00

## LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

MEMBERSHIP STATISTICSYEAR 1982

	<u>Number at Beginning of Year</u>	<u>Increases</u>	<u>Decreases</u>	<u>Number At End of Year</u>
A. Changes in Active Participants				
Male	5,246	580	342	5,484
Female	<u>519</u>	<u>7</u>	<u>40</u>	<u>486</u>
Total	<u>5,765</u>	<u>587</u>	<u>382</u>	<u>5,970</u>
B. Changes In Annuitants & Beneficiaries				
Employee Annuitants	2,420	175	176	2,419
Spouse Annuitants	1,153	92	71	1,174
Children's Annuities	137	12	40	109
Ordinary Disability Benefits	136	102	125	113
Duty Disability Benefits	26	472	473	25
Reversionary (Beneficiaries)	1	0	0	1
Reciprocal: Employee	49	7	0	56
Spouse	11	1	1	11
Widow Compensation Annuities	<u>2</u>	<u>0</u>	<u>0</u>	<u>2</u>
Total	<u>3,935</u>	<u>861</u>	<u>886</u>	<u>3,910</u>
C. Ratio of Active Participants to Annuitants & Beneficiaries				
	<u>1.47</u>			<u>1.53</u>

## LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

SALARY AND AGE STATISTICSYEAR 1982Ages and Salaries as of December 31, 1982Male

<u>Ages</u>	<u>Number</u>	<u>Annual Salaries</u>	<u>Average Annual Salaries</u>
Under 20	30	\$ 721,728	\$24,058
20 - 24	450	10,319,256	22,932
25 - 29	760	17,768,112	23,379
30 - 34	630	15,129,000	24,014
35 - 39	475	11,384,376	23,967
40 - 44	521	12,686,304	24,350
45 - 49	485	11,475,024	23,660
50 - 54	591	13,911,768	23,539
55 - 59	650	15,317,256	23,565
60 - 64	534	12,335,880	23,101
65 - 69	187	4,390,440	23,748
70 & Over	75	1,717,896	22,905
Without Record	96	2,149,224	22,388
Total	<u>5484</u>	<u>\$129,306,264</u>	<u>\$23,579</u>

Female

Under 20	0	\$ 0	\$ 0
20 - 24	3	37,824	12,608
25 - 29	6	102,816	17,136
30 - 34	2	41,280	20,640
35 - 39	5	76,296	15,259
40 - 44	15	214,392	14,293
45 - 49	29	356,448	12,291
50 - 54	65	681,312	10,482
55 - 59	115	1,123,680	9,771
60 - 64	159	1,577,856	9,924
65 - 69	79	698,688	8,844
70 & Over	7	61,248	8,750
W/O Record	1	15,816	15,816
Total	<u>486</u>	<u>\$ 4,987,656</u>	<u>\$10,263</u>

TOTAL MALE AND FEMALE	<u>5970</u>	<u>\$134,293,920</u>	<u>\$22,495</u>
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## LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

SALARY AND AGE STATISTICSYEAR 1982Ages at EntranceMALEFEMALE

	<u>Number</u>	<u>Annual Salaries</u>	<u>Number</u>	<u>Annual Salaries</u>
Under 25	1,813	\$43,733,232	13	\$ 204,192
25 - 29	1,071	25,526,232	33	433,992
30 - 34	749	17,446,728	59	672,648
35 - 39	560	13,074,480	119	1,202,472
40 - 44	499	11,364,624	144	1,422,336
45 - 49	362	8,408,928	96	840,576
50 - 54	193	4,341,696	13	117,192
55 - 59	115	2,662,392	7	73,416
60 & Over	26	598,728	1	5,016
W/O record	96	2,149,224	1	15,816
Totals	<u>5,484</u>	<u>\$129,306,264</u>	<u>486</u>	<u>\$4,987,656</u>

Average Annual Salary	\$23,579	\$10,263
Average Attained Age	43.1	57.8
Average Service	11.9	18.1
Average Age at Entrance	31.2	39.7

## LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

AGE AND SERVICE DISTRIBUTIONYEAR 1982

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

Ages	Years of Service									Total
	<u>Under 1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30-34</u>	<u>35+</u>	
00-20	7 24278	23 23991								30 24058
20-24	41 23226	343 22569	69 24113							453 22863
25-29	31 24123	344 22534	373 23850	18 26393						766 23330
30-34	27 23697	219 22860	268 24266	98 25603	20 25589					632 24004
35-39	17 23345	140 22385	138 24221	96 24273	83 25523	6 23148				480 23876
40-44	15 23789	94 22102	118 23484	82 24708	144 24465	82 25888	1 23304			536 24068
45-49	9 22840	83 22083	98 23750	77 22924	112 21533	92 24136	43 24839			514 23018
50-54	2 23136	62 22268	110 22487	66 21822	126 19707	92 21694	126 23561	70 25082	2 24456	656 22246
55-59	4 24900	50 22080	81 22891	85 22322	177 18060	93 18900	135 22334	132 24975	8 27468	765 21491
60-64	1 20472	30 21726	53 22571	65 21378	180 15614	131 19457	123 21580	101 23929	9 24992	693 20078
65-69	1 25800	3 25800	27 22080	29 23223	70 17146	63 15518	41 21049	24 21598	8 19638	266 19132
70+		1 27360	2 15408	5 23347	20 20231	11 20675	20 23327	19 21485	4 24360	82 21697
W/O	3 <u>17288</u>	37 <u>21017</u>	32 <u>22897</u>	18 <u>24317</u>	3 <u>26072</u>	1 <u>23664</u>	1 <u>12816</u>	2 <u>25224</u>		97 <u>22320</u>
No.	158	1429	1369	639	935	571	490	348	31	5970
Sal.	23501	22473	23658	23569	20041	21039	22596	24271	24133	22495
Age										44.3
Service										12.4

## LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

ANNUITANTS CLASSIFIED BY AGE AS OF 12/31/1982Retirement Annuities

<u>Ages</u>	<u>Male Number</u>	<u>Annual Payments</u>	<u>Average Annual Payments</u>	<u>Female Number</u>	<u>Annual Payments</u>	<u>Average Annual Payments</u>
25 - 29	2	\$ 1,800.00	\$ 900.00		\$	\$
30 - 34						
35 - 39						
40 - 44						
45 - 49	2	1,740.96	870.48			
50 - 54	1	3,856.44	3,856.44			
55 - 59	65	386,019.60	5,938.76	7	8,737.68	1,248.24
60 - 64	190	1,443,199.68	7,595.79	66	182,756.64	2,769.04
65 - 69	428	2,893,484.28	6,760.48	213	657,927.24	3,088.86
70 - 74	350	1,920,048.12	5,485.85	248	546,982.44	2,205.57
75 - 79	232	1,159,207.44	4,996.58	195	383,617.92	1,967.27
80 - 84	137	494,809.20	3,611.75	119	217,696.92	1,829.39
85 - 89	53	196,907.16	3,715.23	55	86,032.80	1,564.23
90 - 94	30	102,671.88	3,422.40	19	28,693.20	1,510.17
95 - 99	4	4,505.04	1,126.26	2	2,742.84	1,371.42
100-105				1	2,278.80	2,278.80
<b>Totals</b>	<b>1494</b>	<b>\$8,608,249.80</b>	<b>\$5,671.88</b>	<b>925</b>	<b>\$2,117,466.48</b>	<b>\$2,289.15</b>

Average Age

7174Spouses Annuities (Not Including Compensation)

<u>Ages</u>	<u>Male Number</u>	<u>Annual Payments</u>	<u>Average Annual Payments</u>	<u>Female Number</u>	<u>Annual Payments</u>	<u>Average Annual Payments</u>
20 - 24		\$	\$		\$	\$
25 - 29				2	2,400.00	1,200.00
30 - 34	1	1,200.00	1,200.00	1	1,200.00	1,200.00
35 - 39				8	12,567.12	1,570.89
40 - 44				18	22,624.08	1,256.89
45 - 49				19	29,622.24	1,559.07
50 - 54	1	1,200.00	1,200.00	53	79,135.08	1,493.11
55 - 59				121	244,148.52	2,017.76
60 - 64	1	1,200.00	1,200.00	172	329,458.80	1,915.46
65 - 69	5	6,324.12	1,264.00	233	419,280.96	1,799.49
70 - 74				199	362,368.32	1,820.95
75 - 79				142	187,477.44	1,320.26
80 - 84	1	1,529.16	1,529.16	117	153,360.96	1,310.78
85 - 89				51	49,965.36	979.71
90 - 94				22	18,076.80	821.67
95 - 99				7	4,604.28	657.75
<b>Totals</b>	<b>9</b>	<b>\$ 11,453.28</b>	<b>\$1,272.59</b>	<b>1,165</b>	<b>\$1,916,289.96</b>	<b>\$1,644.88</b>

Average Age

6269

## LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

NEW ANNUITIES GRANTEDAS OF DECEMBER 31, 1982

	<u>Male Annuitants</u>	<u>Female Annuitants</u>	<u>Widows of Deceased Employees</u>	<u>Widows of Deceased Annuitants</u>
Number Retired	120	53	38	52
Average Attained Age	64.3	65.2	55.2	68.4
Average Length of Service	24.9	21.2	20.4	N/A
Average Annual Salary (4 out of 10)	\$ 16,872	\$ 8,424	N/A	N/A
Average Annual Final Salary	\$ 20,628	\$ 10,284	N/A	N/A
Total Annual Annuity	\$ 1,038,547	\$ 194,797	\$ 107,742	\$ 128,292
Average Annual Annuity	\$ 8,513	\$ 3,675	\$ 2,835	\$ 2,376
Total Liability (6.75% UP-1984)	\$10,942,707	\$2,179,617	\$1,155,196	\$ 986,410
Average Liability	\$ 91,189	\$ 41,125	\$ 30,400	\$ 18,969
Total Cost For Income Tax Purposes	\$ 2,189,375	\$ 391,277	\$ 615,024	N/A
Average Cost	\$ 17,946	\$ 7,383	\$ 16,185	N/A
Expected Future lifetime (yrs.)	15.35	18.14	26.04	16.02
Payback Period (yrs.)	2.11	2.00	5.71	N/A
Replacement ratio	41.2%	35.7%	N/A	N/A
Liability divided by Salary	4.42	4.00	N/A	N/A

## LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

HISTORY 1964 to 1982AVERAGE ANNUAL SALARIES ENTIRE FUND

<u>Year End</u>	<u>Total Members In Service(1)</u>	<u>Percentage Increase Of Preceding Year</u>	<u>Total Salaries</u>	<u>Percentage Increase Of Preceding Year</u>	<u>Average Annual Salaries</u>	<u>Percentage Increase Of Preceding Year</u>
1964	7,868		\$ 44,441,712		\$ 5,648	
1965	7,936	0.9%	45,872,832	3.2%	5,780	2.3%
1966	7,995	0.7	47,598,552	3.8	5,954	3.0
1967	8,102	1.3	52,268,304	9.8	6,451	8.3
1968	7,891	(2.6)	56,165,136	7.5	7,118	10.3
1969	7,777	(1.4)	60,523,296	7.8	7,782	9.3
1970	7,220	(7.2)	62,916,768	4.0	8,714	12.0
1971	6,864	(4.9)	66,142,320	5.1	9,636	10.6
1972	6,971	1.6	69,950,692	5.8	10,035	4.1
1973	6,752	(3.1)	73,108,848	4.5	10,828	7.9
1974	6,638	(1.7)	78,526,728	7.4	11,830	9.3
1975	7,032	5.9	89,276,280	13.7	12,696	7.3
1976	6,811	(3.1)	90,487,008	1.4	13,285	4.6
1977	6,752	(0.9)	98,029,296	8.3	14,519	9.3
1978	6,613	(2.1)	103,399,152	5.5	15,636	7.7
1979	6,175	(6.6)	105,825,264	2.3	17,138	9.6
1980	5,847	(5.3)	108,854,496	2.9	18,617	8.6
1981	5,765	(1.4)	118,054,512	8.5	20,478	10.0
1982	5,970	3.6	134,293,920	13.8	22,495	9.8

Average Increase  
for the last 5  
years

(2.4)%

6.6%

9.1%

(1) Includes those members who were on disability

(2) Average annual increase in salary 1964 - 1982 about 7.98% compounded.



## LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

HISTORY OF TOTAL ANNUITIES 1968 - 1982Employee Annuitants (Male & Female)

<u>Year End</u>	<u>Number Of Annuitants</u>	<u>Total Annuities</u>	<u>Average Annuities</u>
1968	1,572	\$2,389,710	\$1,520
1969	1,593	2,495,396	1,566
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

Spouse Annuitants  
(Not Including Compensation)

1968	875	\$ 580,690	\$ 664
1969	909	640,079	704
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

## LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

HISTORY OF INVESTMENT YIELDSNonrecurring Gains and Losses are Excluded from Income

<u>Year End</u>	<u>Investment Yield on Total Assets</u>	<u>Investment Yield on Invested Assets</u>
1971	4.75%	4.99%
1972	5.47	5.70
1973	5.76	6.03
1974	6.58	6.98
1975	7.25	7.73
1976	7.23	7.65
1977	7.01	7.35
1978	6.61	6.97
1979	7.38	7.82
1980	7.69	8.20
1981	8.46	9.11
1982	9.88	10.47
Average of Last 5 Years	8.00%	8.51%

Nonrecurring Gains and Losses are Included in Income

<u>Year End</u>	<u>Investment Yield on Total Assets</u>	<u>Investment Yield on Invested Assets</u>
1971	3.95%	4.14%
1972	4.79	5.00
1973	3.60	3.77
1974	3.55	3.76
1975	6.17	6.58
1976	6.98	7.39
1977	7.00	7.35
1978	5.34	5.62
1979	6.61	7.00
1980	5.66	6.03
1981	3.99	4.29
1982	7.64	8.09
Average of Last 5 Years	5.85%	6.21%

## Notes:

$$\text{Yield} = \frac{\text{Investment Income}}{\frac{1}{2} (\text{Assets at beginning} + \text{end}) - \frac{1}{2} \text{Investment Income}}$$

Bonds valued at amortized value, stocks at cost.  
Market values are not considered.

## LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

HISTORY OF FINANCIAL INFORMATION

<u>Year End</u>	<u>Employee Contributions(1)</u>	<u>Employer Contributions(2)</u>	<u>Investment Income (3)</u>	<u>Total Income</u>
71	\$ 5,254,928	\$ 4,241,819	\$ 4,145,156	\$13,641,903
72	5,928,386	4,793,135	5,391,547	16,113,068
73	6,269,104	5,463,149	4,394,426	16,126,679
74	6,597,012	6,103,125	4,646,080	17,346,217
75	7,375,222	6,699,000	8,665,212	22,739,434
76	7,887,179	7,287,000	10,785,585	25,959,764
77	8,568,248	8,470,000	11,993,200	29,031,448
78	9,077,825	9,477,125	10,112,216	28,667,166
79	9,571,764	11,108,298	13,547,589	34,227,651
80	9,729,912	11,791,330	12,626,861	34,148,103
81	10,522,389	12,392,694	9,631,793	32,546,876
82	11,546,286	12,589,417	19,729,269	43,864,972

<u>Year End</u>	<u>Income Less Pay Outs(4)</u>	<u>Pay Outs To Assets</u>	<u>Income To Assets</u>	<u>Pay Outs To Income</u>	
71	\$ 6,829,674	\$ 6,812,229	6.2%	12.4%	50.1%
72	6,425,129	9,687,939	5.4	13.4	39.9
73	7,125,454	9,001,225	5.5	12.5	44.2
74	7,999,287	9,346,930	5.8	12.6	46.1
75	8,690,763	14,048,671	5.7	15.0	38.2
76	9,482,736	16,477,028	5.6	15.4	36.5
77	10,819,180	18,212,268	5.8	15.6	37.3
78	12,454,451	16,212,715	6.1	14.1	43.4
79	14,055,673	20,171,977	6.4	15.5	41.1
80	16,796,949	17,351,154	7.1	14.3	49.2
81	16,596,246	15,950,630	6.5	12.8	51.0
82	16,338,842	27,526,130	5.8	15.6	37.2

Statistical material suggested by the Laborers' Finance Officers Association in the disclosure guidelines for security offerings by the State and Local Government.

- (1) Includes Deductions In Lieu for Disability.
- (2) Net Tax Levy and Miscellaneous Income.
- (3) Includes Realized Net Loss on Sale and Exchange of Bonds.
- (4) Includes Pensions, Benefits, Refunds and Administrative Expenses.
- (5) Does Not Include Prior Year Adjustments.

## LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

HISTORY OF FINANCIAL INFORMATIONANNUAL ACTUARIAL REQUIREMENTS

Actuarial Recommended Contribution (Employer and Employee)  
Normal Cost Plus Various Amortization Methods.

<u>Year</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>A</u>	<u>B</u>	<u>C</u>
	NC Plus Interest	NC Plus ERISA 40 Year Amortization	NC Plus Increasing % of Salary	Expressed as Percentage of Salary Beginning of Year		
77	\$17,063,326	\$17,607,328	\$15,240,172	18.86%	19.46%	16.84%
78	18,468,103	19,054,056	16,504,353	18.84	19.44	16.84
79	20,575,276	21,211,686	18,442,428	19.90	20.51	17.84
80	21,699,408	22,362,086	19,478,525	20.50	21.13	18.41
81	25,019,195	25,711,368	22,699,461	22.98	23.62	20.85
82	23,885,754	24,620,727	21,422,580	20.23	20.86	18.15
83*	24,484,651	25,070,322	21,442,931	18.23	18.67	15.97

## ACTUAL EMPLOYER AND EMPLOYEE CONTRIBUTION

<u>Year</u>	<u>D</u>	<u>E</u>	<u>D</u>	<u>E</u>
	Employer	Employee	Expressed as a Percentage of Salary Beginning of Year	
77	\$ 8,470,000	\$ 8,568,248	9.36%	9.47%
78	9,477,125	9,077,825	9.67	9.26
79	11,108,298	9,571,764	10.74	9.26
80	11,791,330	9,729,912	11.14	9.19
81	12,392,694	10,522,389	11.38	9.67
82	12,589,417	11,546,286	10.66	9.78
83 EST*	13,689,600	11,414,983	10.19	8.50

## DEFICIENCY (EXCESS) IN ANNUAL CONTRIBUTION

<u>Year</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>F</u>	<u>G</u>	<u>H</u>
	NC Plus Interest	NC Plus ERISA 40 Year Amortization	NC Plus Increasing % of Salary	Expressed as a Percentage of Salary Beginning of Year		
77	\$ 25,078	\$ 569,080	( \$1,798,076)	.03%	.63%	(1.99)%
78	( 86,847)	499,106	( 2,050,597)	( .09)	.51	(2.09)
79	( 104,786)	531,624	( 2,237,634)	( .10)	.51	(2.16)
80	178,166	840,844	( 2,042,717)	.17	.79	(1.93)
81	2,104,112	2,796,285	( 215,622)	1.93	2.57	(.20)
82	( 249,949)	485,024	( 2,713,123)	( .21)	.41	(2.30)
83 EST*	( 619,932)	( 34,260)	( 3,661,652)	( .46)	(.03)	(2.73)

\*Change in actuarial assumptions

## LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

HISTORY OF FINANCIAL INFORMATIONACCRUED AND UNFUNDED LIABILITIES

<u>Year End</u>	<u>Accrued Liability</u>	<u>Assets At Book Value</u>	<u>Funded Ratio</u>	<u>Unfunded Accrued Liability</u>	<u>Payroll</u>	<u>Unfunded Accrued % Payroll</u>
71*	\$158,815,569	\$110,423,040	69.5%	\$ 48,392,529	\$ 66,142,320	73%
72	172,160,657	120,072,655	69.7	52,088,002	69,950,692	74
73	197,782,050	128,624,035	65.0	69,158,015	73,108,848	95
74	215,636,093	137,709,821	63.9	77,926,272	78,526,728	99
75	242,216,859	151,749,085	62.7	90,467,774	89,276,280	101
76*	252,410,689	168,219,982	66.6	84,190,707	90,487,008	93
77	277,111,671	186,428,465	67.3	90,683,205	98,029,296	93
78	301,135,468	202,643,520	67.3	98,491,948	103,399,152	95
79	323,368,034	220,810,778	68.3	102,557,256	105,825,264	97
80	345,364,820	238,242,772	69.0	107,122,048	108,854,496	98
81	367,980,498	254,234,605	69.1	113,745,893	118,054,512	96
82*	391,353,993	281,708,565	72.0	109,645,428	134,293,920	82

SOLVENCY (TERMINATION) TEST

<u>Year End</u>	<u>Retired Liability</u>	<u>Active Member Salary Deductions</u>	<u>Total Term. Liab.</u>	<u>Assets At Book Value</u>	<u>Termination Cost (Excess)</u>	<u>Quick Ratio Assets to Term. Liab.</u>
75	\$56,403,573	\$63,162,106	\$119,565,679	\$151,749,085	\$(32,183,406)	127%
76*	61,271,047	68,189,205	129,460,252	168,219,982	(38,759,730)	130
77	67,977,467	73,608,310	141,585,777	186,428,466	(44,842,689)	132
78	77,603,101	78,072,062	155,675,163	202,643,520	(46,968,357)	130
79	86,918,802	83,057,007	169,975,809	220,810,778	(50,834,969)	130
80	97,598,923	85,989,360	183,588,283	238,242,772	(54,654,489)	130
81	107,291,048	88,378,748	195,669,796	254,234,605	(58,564,809)	130
82*	113,743,284	94,516,563	208,259,847	281,708,565	(73,448,718)	135

\* Change in valuation assumptions

Quick ratio is defined as assets divided by the termination liability

## LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

Method: The actuarial funding method used is the ENTRY AGE NORMAL METHOD.

This cost method assigns to each year of employment a constant percentage of an employees 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 only be known 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 which should have been paid 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 total actuarial contribution required to the fund is equal to the CURRENT SERVICE COSTS plus INTEREST ONLY on the UNFUNDED LIABILITY. This is the funding policy. This minimum method of funding, often referred to as 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 give effect to all interested groups including opinions often expressed by the Civic Federation. No funds are provided for amortization of the UNFUNDED LIABILITY.

Reserves for employee 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 over, are used.

The costs for the following items are valued on an annual cost basis. No reserves are set up as these items tend to stabilize on a cash basis.

## LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

- 1) Duty Disability Benefits
- 2) Ordinary Disability Benefits
- 3) Children's Annuities
- 4) Refunds - including refunds for no wife
- 5) Expense of administration

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

Actuarial Assumptions:Mortality:

Active Members, Present and Future Retired Members and Spouses: UP-1984 MORTALITY TABLE, male and female.

Interest: 6.75% a year, compounded annually. An exhibit details the investment yields the Fund actually realized over the past few years.

Interest earnings over the assumed rate can be used to reduce losses which 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, say, that the youngest employee in the fund will work, then retire on pension for the rest of his life. There is no guarantee that the current high 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%.

It should be remembered that pensions are based directly upon salary. If it is believed that the recent pattern will continue in the long range future, the salary scale assumption will need to be increased.

Increased costs would necessarily result with the extent of the increase in cost depending on the extent of the increase in salary over the assumed long range.

## LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

Rate of Retirement: The rates of retirement used in this valuation are shown in Exhibit "0" for each age of entrance group into the service and are based on 1973, 1974 and 1975 experience of the Fund adjusted to 1978.

These rates were modified this year to assume all employees retire by age 70.

Rate of Termination: These rates are shown in Exhibit "0" and are based on the experience of the Fund for the years 1973, 1974 and 1975 adjusted to 1978.

Proportion Married: The scale is shown in Exhibit "0".

Active Membership: It is assumed that the future active membership of the Fund will approximate its present membership, which was made up of 5,970 members.

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

Asset Value: Bonds are amortized value; stocks are at cost, real estate separate accounts at adjusted cost.

Reciprocal Benefits: Active life normal costs and reserves are loaded 1%.

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



## LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

SERVICE TABLE FUNCTIONSRate of RetirementMale

Attained Age	Age at Entrance								
	22	27	32	37	42	47	52	57	62
55	.065	.010	.007	.008	.002				
56	.135	.065	.008	.010	.003				
57	.187	.115	.010	.015	.005	.007			
58	.205	.146	.016	.020	.011	.009			
59	.219	.157	.035	.028	.021	.011			
60	.229	.160	.150	.046	.033	.015	.021	.017	
61	.236	.172	.193	.074	.055	.022	.037	.028	
62	.240	.210	.211	.115	.097	.044	.084	.042	
63	.245	.321	.225	.140	.116	.106	.134	.064	.125
64	.255	.336	.249	.216	.136	.174	.162	.081	.145
65	.324	.345	.334	.319	.152	.200	.178	.113	.167
66	.354	.350	.348	.348	.166	.217	.193	.130	.201
67	.363	.354	.356	.358	.180	.231	.205	.139	.227
68	.370	.359	.362	.364	.194	.246	.220	.146	.275
69	.374	.363	.367	.367	.208	.259	.232	.152	.290
70	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Female

55	.028	.025	.021	.019	.013				
56	.036	.035	.023	.023	.016				
57	.044	.052	.024	.026	.021	.006			
58	.057	.067	.027	.031	.026	.009			
59	.068	.073	.031	.037	.034	.014			
60	.080	.085	.044	.045	.043	.023	.018	.019	
61	.097	.093	.098	.053	.056	.032	.027	.030	
62	.110	.098	.172	.060	.077	.047	.045	.043	
63	.120	.106	.193	.071	.095	.062	.070	.066	.070
64	.136	.123	.204	.083	.114	.100	.135	.100	.090
65	.154	.180	.213	.101	.136	.160	.163	.145	.153
66	.168	.221	.218	.141	.163	.173	.176	.172	.163
67	.176	.236	.228	.190	.183	.193	.182	.186	.168
68	.184	.246	.238	.228	.200	.204	.184	.194	.171
69	.189	.254	.259	.237	.214	.214	.188	.201	.174
70	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

## LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

SERVICE TABLE FUNCTIONSRates of TerminationMale

<u>Attained Age</u>	<u>Age at Entrance</u>								
	<u>22</u>	<u>27</u>	<u>32</u>	<u>37</u>	<u>42</u>	<u>47</u>	<u>52</u>	<u>57</u>	<u>62</u>
22	.223								
27	.116	.262							
32	.050	.100	.219						
37	.021	.046	.098	.221					
42	.012	.025	.022	.088	.176				
47	.005	.012	.010	.034	.080	.142			
52		.005	.005	.017	.028	.076	.120		
57							.046	.112	
62									.148
67									

Female

22	.140								
27	.108	.174							
32	.052	.085	.108						
37	.022	.038	.062	.074					
42	.008	.022	.033	.051	.054				
47		.013	.017	.028	.033	.063			
52		.005	.009	.015	.020	.033	.054		
57							.036	.056	
62									.027
67									

<u>Attained Age</u>	<u>Male Death Rate UP-1984 Per 1,000</u>	<u>Female Death Rate UP-1984 Per 1,000</u>	<u>Proportion Married %</u>
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

# ILLINOIS PUBLIC EMPLOYEES PENSION LAWS COMMISSION IMPACT STATEMENT

Exhibit "p"

Name of Retirement System: Laborers'

Total Annual Payroll: \$134,293,920

Bill No. \_\_\_\_\_

Total Number of Active Employees: 5,970

**PRESENT FINANCIAL CONDITION AS OF VALUATION DATE**

Valuation Date	PRESENT PLAN
12-31-82	
(1) Accrued Pension Liability	\$391,353,993
(2) Present Assets	\$281,708,565
(3) Unfunded Liability = (1)-(2)	\$109,645,428
(4) Funded Ratio = (2) ÷ (1)	71.98%

PROPOSED LEGISLATION

PLAN IF PROPOSED LEGISLATION ENACTED

**DIRECTION OF FINANCIAL CONDITION: FOR YEAR BEGINNING ON VALUATION DATE**

	PRESENT PLAN	PER ACTIVE	% OF SALARY
(5) Minimum Recommended Annual Contribution	\$ 24,484,651	\$4101	18.23
(6) Estimated Annual Employer Contribution	\$ 13,689,600	\$2293	10.19
(7) Estimated Annual Employee Contribution	\$ 11,414,983	\$1912	8.50
(8) Excess Deficiency in Annual Contributions = (5)-(6)-(7)	\$ 619,932	\$ 104	.46

PROPOSED LEGISLATION	PER ACTIVE	% OF SALARY

PLAN IF PROPOSED LEGISLATION ENACTED	PER ACTIVE	% OF SALARY

(9) Source of Funding Revenues:

(10) Remarks

← IS THE ANNUAL COST FOR PROPOSED LEGISLATION

## LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

PLAN SUMMARYPARTICIPANT:

Person employed by the City in a position classified by the Civil Service Commission of the employer 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 formula minimum annuity and ordinary disability credit, service in four months in any calendar year constitutes one year of service credit. No more than one year of service is allowed during any calendar year.

RETIREMENT ANNUITY:

Accumulation Annuity: Age 55, 10 years service (entire sum accumulated from deductions plus 1/10 City contributions for each year after 10). Full City contributions are added for age 60 and over regardless of service. This annuity is known as the money purchase plan and does not increase after age 70 nor does it apply after age 65 if participant has 20 years service.

Formula Minimum Annuity: Age 55, 20 years service; 1.67% for the first 10 years, 1.90% for the second 10 years, 2.1% for the third 10 years, 2.3% for all service over 30 years times the final average salary (highest 4 consecutive years within the last 10 years). Under age 60 the annuity is reduced by a percentage equal to 1/2 of 1% for each month and fraction thereof that the employee is under age 60. Maximum annuity is 75% of highest average monthly salary.

Age 65, 15 years service; 1% of final average salary for each year of service plus the sum of \$25.00 per year for each year of service.

Service during 6 or more months in any year constitutes a year of service credit and service of less than 6 months and at least 1 month in any year constitutes a half a year of service credit for formula minimum annuity.

Automatic Increase In Annuity: Retirement at age 60--2% of annuity starting January of the year following the year in which the first anniversary of retirement occurs. If retirement is before age 60, increases begin with January of the year immediately following the year in which he attains the age of 60 years. Increases apply only to life annuities.

## LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

PLAN SUMMARYSPOUSE'S ANNUITY:

Payable until remarriage or termination of temporary annuity.

Death In Service (Non-Duty): Money Purchase based on total salary deductions and City contributions for both employee and spouse, limited to amount payable at employee's age 65 if deceased employee has less than 20 years service and is under age 60. Maximum \$400.00 per month.

Formula Minimum Annuity if deceased employee is age 60 or over and has at least 20 years service. Widow's annuity is 1/2 of annuity that would have been payable to employee discounted 1/2 of 1% for each month spouse is under age 60. Maximum \$400.00 per month.

Death After Retirement: Fixed at date of retirement. Annuity is determined to be based on money purchase plan or formula minimum annuity depending on rules in effect at the date participant retires.

CHILDREN'S ANNUITY:

Payable upon the death of City employee, either active or retired.

Child must be unmarried, under age 18, born before participant is age 65 and before his separation from City 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 parent. Annuity is \$80.00 per month while a surviving parent is alive and \$120.00 per month if neither parent is alive. Except for duty death deceased employee must have had 4 years of service and at least 2 years from latest re-entrance if he had previously resigned from service.

FAMILY MAXIMUM:

Non-duty death: 60% of final monthly salary: Duty death: 70% of final monthly salary.

DISABILITIES:

Duty Disability Benefits: Any employee under age 65, who becomes disabled as the result of injury incurred in the performance of any act of duty, shall

## LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

PLAN SUMMARY

have a right to receive duty disability benefit in the amount of 75% of salary at date of injury plus \$10.00 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.

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.

Duty disability is payable to age 65 and the City contributes salary deductions for annuity purposes.

Ordinary Disability Benefit: Disability other than in performance of an act of duty...50% of salary less the sum ordinarily deducted from salary for annuity purposes, as of last day worked payable until age 65 and limited to a maximum of 1/4 service or 5 years, whichever is less. The City contributes the deductions for pension purposes. Service for this ordinary disability is actual service -- one day of service is given for each day paid, exclusive of any overtime payments and any previous ordinary disability periods.

REFUNDS:

To Employee: Upon separation from service -- 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. Employee forfeits all rights.

Spouse's annuity deductions -- payable to employee if not married when he retires or at age 65.

To Spouse: In lieu of annuity if annuity would be temporary rather than life and spouse so chooses.

Remaining Amounts: Excess over total annuity payments may be paid to designated beneficiary or children, estate or heirs.

## LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

PLAN SUMMARYDEDUCTIONS AND CONTRIBUTIONS:

	<u>Deductions</u>	<u>Contributions</u> *
Employee	6-1/2%	6%
Spouse	1-1/2% **	2% **
Annuity Increase	1/2%	-
Total:	<u>8-1/2%</u>	<u>8%</u>

\*\* Only to employee age 65.

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.