ACTUARIAL	STATEMENI		
AS	OF		
DECEMBER	31.	1973	

## DONALD F. CAMPBELL

## CONSULTING ACTUARY

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TELEPHONE 782-1335

PACE

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, 1973 of the Laborers' and Retirement Board Employees Annuity and Benefit Fund of Chicago, appended hereto, consisting of the following:

		PAGE	
Actuarial Balance Sheet	Assets	l	
Actuarial Balance Sheet	Liabilities	2	
Income		3	•
Expenditures	D * 6 * * * * 8 * * 0 * 0 * 6 * * * 8 * * * * * * * * * * * * * *	4	•
History, 1962 to 1973	Average Annual Salaries		
	and Investment Yield	5	•
Comparative Analysis	Assets	6	
Comparative Analysis Cash Reconciliation	Receipts and Disbursements - Actual Cash	8	
Schedule "A"	Taxes Collectible	å	
Schedule "B"	Summary of Actuarial Assumptions	1	
	and Methods	10,	11.
	· · · · · · · · · · · · · · · · · · ·	12,	
Schedule "C"	Membership Statistics	14	
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Schedule "E"	Annuitants Classified by Age and Amounts	16	

is, to the best of my knowledge and belief, a true and correct statement of the affairs and conditions of said Fund for the calendar year 1973.

This statement has been prepared from the books of the Fund as substantiated by my letters of recommendation to the Retirement Board.

The method of valuation or method of financing the system and the actuarial assumptions and methods used in the valuation are shown on page ten, eleven, twelve and thirteen of this report. The attempt is made to give effect to realistic valuation factors affecting costs.

Changes from the 1972 assumptions have been made in the interest, salary scale, rates of retirement and the rate of withdrawal from service. The reasons for the changes are given on pages thirteen and fourteen.

The accounting procedure is outlined in Article 8 of the Illinois Pension Code.

Page Two.

The method of valuation is that known as a normal cost-plus-interest basis, which method is intended to continue the Article governing the Fund in full force and effect on a permanent basis.

Under this method the estimated amount of City contribution consists of two parts... one part is the current service cost referred to as entry age normal cost, and the other part is an amount equal to the interest at the rate assumed for valuation purposes on the unfunded liability or deficiency. This method is also known as a minimum method of financing or funding.

The current service cost expressed as a rate is the average percentage of the salaries for new employees that is required to be paid into the Fund from the time they enter the service until they leave the service in order to accumulate sufficient funds to pay their benefits with costs computed on the bases of the actuarial assumptions set forth.

At a given valuation date the difference between these total accumulated current costs for all participants of the Fund plus liabilities for annuitants and the total Fund invested assets is the unfunded liability on that valuation date.

In determining the value of the assets on valuation date the stocks have been valued at cost and bonds on an amortized cost basis.

Based on the preceding method of financing, I find that the minimum annual City contributions would be \$9,024,018.00, which amount includes a 10% reserve for loss of collection.

This minimum annual contribution for the City is computed as follows, based on an annual payroll of \$73,108,848.00 as of December 31, 1973.

- For Current Service Cost, City's Share, Entry Age Normal 6.38% Includes 10% Loss Estimate......\$5,181,899.00

This minimum method of funding or financing is often referred to as a middle of the road method. It 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 expressed by the Civic Federation. This minimum annual contribution of \$9,024,018.00 would require a tax levy multiple of 1.49 based on 1973 salaries.

#### Page Three.

The current ultimate multiple beginning in 1978 authorized in Article 11 is 1.37. As a result, an increase in multiple of .12 is needed for a minimum funding basis. As the members contribute about 8.2% of salary an increase of .12 in the multiple would produce an amount equal to 1.0% of salary. Based on the 1973 salary roll of \$73,108,848.00 a 1% increase would be \$731,088.00. The Fund would net 10% less, or \$657,979.20.

The total unfunded liability as of December 31, 1973, I estimate, amounts to \$69,158,015.40, as shown on page two of the Annual Statement. As of December 31, 1972 the unfunded liability was \$52,088,002.01.

The principal reason for the increase in unfunded liability of \$17,070,013.39 is due to a substantial increase in the rate of retirement which has been reflected in changed rates of retirement used in the valuation. The new rates or probabilities are shown on page fifteen of this report. Future experience may indicate that these rates will need to be increased, particularly for employees who enter the service at young ages. These probabilities of retirement are based on the experience of the Municipal Fund for 1971 and 1972 modified to give effect to the first years experience for the new formula.

Increases in unfunded liability were also due to:

- 1. Net loss on sale of bonds of \$2,680,025.81 in order to substantially increase Fund income in future years.
- 2. Loss due to increase in loss of reserve for uncollected taxes to agree with Comptroller's books of \$449,845.97.
- 3. Loss due to increase in salaries over 3% salary scale of about \$6,000,000.00.
- 4. Loss due to change in method of valuation for widow's and wives' annuities of about 1.0% of total reserves, or \$500,000.00.
- 5. The change to a 3-1/2% salary scale from the 3% used in the 1972 valuation was reduced by the increase in the interest assumption to 5% from the 4-1/2% previously used.
- 6. The cost of the change to the mortality table for annuitants to the 1951 Group Annuity Table from the Combined Annuity Table was largely reduced by the change in interest rate to 5% from 4-1/2%.

The ratio of assets to liabilities was 65.0 as of December 31, 1973 and 69.8 as of December 31, 1972.

Recently enacted Federal legislation for private pension plans will require unfunded liabilities to be amortized over a forty year period. As the Board knows, such Federal law requires a study to be made of Public Employee Plans and a report submitted to Congress before the end of 1976. Page Four.

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 3-1/2% increase assumed in the salary scale the unfunded liability will be increased by about \$2.09 for male employees, and \$2.27 for female employees. This will be in addition to the additional current annual service cost of about 6.38% for every dollar over the 3-1/2% salary scale assumed.

These additional costs will be reduced by the annual amount of investment income earned over the assumed 5% used for valuation purposes.

In order to give the Retirement Board some guidance in estimating the effects on costs of variations in the principal actuarial assumptions I have estimated the financial effect, without making a detailed study, if the 1973 valuation is made based on a 6% a year compounded investment earning assumption and a 5% a year compounded salary scale.

I estimate that the two valuations give results that do not differ greatly. As a result, the middle of the road funding method used in this valuation, which in turn is based on actuarial assumptions which can also be classified as being middle of the road, taken together with the two alternative actuarial valuations giving effect to two principal factors of cost, namely:

- (1) The investment earning assumption, and
- (2) The salary earnings assumption gives, in my opinion, as realistic as possible a valuation of the Fund's present financial position and future trends under current conditions affecting the Fund.

The new Federal legislation allows as an alternative valuation referred to as the close out method for private plans. It is also being discussed currently by the Illinois Public Pension Laws Commission. Such an alternative close out method valuation values the liabilities at a given date as if the Fund was terminated on the valuation date. The results of a close out method have not been given in this report.

Future analysis of the Fund's operating experience will indicate the changes necessary in the Fund's method of financing.

Respectfully submitted,

St. Coylel

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# LABORERS' AND RETIREMENT BOARD

EMPLOYEES' ANNUITY AND

BENEFIT FUND

ACTUARIAL

BALANCE SHEET

AS OF

DECEMBER 31, 1973

Page 1.

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

### ACTUARIAL BALANCE SHEET

# ASSETS

## AS OF DECEMBER 31, 1973

CASH ON DEPOSIT	ţ	\$ 1,004,331.23	
ACCOUNTS RECEIVABLE: Salary Deductions Accrued Miscellaneous from Employees	\$     853,020.33 87,908.37		
Total Accounts Receivable		940,928.70	
INTEREST RECEIVABLE: Accrued Interest on Bonds		2,096,057.02	
INVESTMENTS: Bonds - Par Value Bonds - Premiums and Discounts Common Stocks Due from Broker	\$115,868,774.71 (2,500,852.92) 5,498,656.69 1,049,586.11		
Total Investments		119, <u>9</u> 16,164.59	
TAXES RECEIVABLE - (Exhibit F, Page 10) City:			
Uncollected Taxes Reserve for Loss and Cost of Collection	\$ 10,574,992.40 4,739,088.00		
Net Taxes Receivable		5,835,904,40	
Park District: Uncollected Taxes Reserve for Loss and Cost of Collection	\$ 46,827.30 22,529.70		• •
Net Taxes Receivable		24,297.60	
GROSS LEDGER ASSETS			\$129,817,683.54
LESS - ACCOUNTS PAYABLE: Miscellaneous to Employees Military Service Deductions - Exces		\$ 1,192,091.00 <u>1,557.71</u>	
Total	<b>"</b>		1,193,648.71
NET LEDGER ASSETS DECEMBER 31, 1973			\$128,624,034.83

#### ACTUARIAL BALANCE SHEET

## LIABILITIES AND FUND BALANCE

## AS OF DECEMBER 31, 1973

FOR SERVICE AFTER JULY 1, 1935:		• •	
LIABILITIES RESERVES:			
ANNUITY PAYMENT FUND ACCOUNT:		1	
Employee Annuitants	\$12,613,262.89	ł	
Employee Annuities Fixed	4,418,904.84	•	
Widow Annuitants	5,968,313.56	•	- 
Wives' Annuities Fixed	2,733,405.03		
Total Annuity Payment Fund	อาจอาจอาจอาสารแสด้านที่สามีการไปประเทศสารไม่มูลสารเราะเป็นจะ อาจอาจอาสารเสียง	\$ 25,733,886.32	
SALARY DEDUCTION FUND ACCOUNT:		φ μης του ο ο ο ο ο ο	
	\$40,648,943.42		
Employees			· ·
Wives of Employees	7,805,103.67		
Total Salary Deduction Fund		48,454,047.09	
CITY CONTRIBUTIONS FUND ACCOUNT:			
Employees	\$40,527,562.65		
Wives of Employees	12,124,116.05		•
Supplemental Annuities	12,826.40	· ·	
Total City Contributions Fun	đ	52,664,505.10	•
OTHER RESERVES:			
Annuity Payment Fund Account	\$ 3,860,082.95		
Child's Annuity Fund Account	0		
Duty Disability Fund Account	ň	i	•
Expense of Administration Account	ů ř		
Investments and Interest Fund Account	t. O	1	1997 - T.
Ordinary Disability Fund Account	0		•
•		3,860,082.95	1. · · · · · · · · · · · · · · · · · · ·
Total Other Reserves		3,000,002.97	
TOTAL LIABILITY AND SURPLUS RESERVES	• 2		4700 PTO FOT 46
FOR SERVICE AFTER JULY 1, 1935			\$130,712,521.46
SUPPLEMENTARY PAYMENT RESERVE			93,196.30
FOR SERVICE PRIOR TO JULY 1, 1935 AND	MINIMUM ANNUITI	ES:	
PRIOR SERVICE FUND ACCOUNT:			
Estimated Excess Liability (1)	\$49,396,721.14		
Employee Annuitants	13,573,230.04	*	
Employee Annuities Fixed	53,958.84		
Widow Annuitants	851,211.76		
Wives' Annuities Fixed	739,734.09		•
Contributions for Employees	12,402.28	•	
Contributions for Wives	5,931.55		ан (так) (т
Salary Deductions for 2% Annuity	2,343,142.77		
Total Prior Service Fund		\$ 66,976,332.47	
		φ	
DEDUCT: Obligations of Fund for Prior		(60 is me to	1
Service Fund Liabilities		(69,158,015,40	(2,181,682.93)
	•	· ·	(C,101,002,93)
ייסטער אובייי דעפדן דייס אאיז דיישע אייס אייסייי	רכ טעמאעיאנה א	1072	102 den des Rera
TOTAL NET LIABILITIES AND FUND BALANCE	P DECEMENTER JL,	-710	<u>\$128,624,034.83</u> )

(1) For minimum annuity provisions and for other reserves.

# LABORERS' AND RETIREMENT BOARD

EMPLOYEES' ANNUITY AND

BENEFIT FUND

INCOME YEAR 1973

INCOME

AND

EXPENDITURES

Page 3.

## LABORERS! AND RETIREMENT BOARD EMPLOYEES! ANNUITY AND BENEFIT FUND

	T.BT.(1/), M7		
	INCOME		
	<u>YEAR 1973</u>		
			•
SALARY DEDUCTIONS: Employees Wives of Employees 2% Retirement Annuity	\$ 4,858,834.36 953,804.05 373,728.12		
Total Salary Deductions		\$6,186,366.53	. •
		0,,,000,,000,,000	
PAYMENTS BY EMPLOYEES FOR TEMPORARY SERVICE AND REFUND REPAYMENTS		82,737.45	•
CITY CONTRIBUTIONS (\$5,422,500.00) PARK CONTRIBUTIONS (\$ 19,800.00) Employee Annuities Wife Annuities Child Annuities	\$ 4,322,099.88 1,298,298.01 90,085.31		
Duty Disability Ordinary Disability Expense of Administration Interest on Income Deficiency in Current Requirements	205,982.36 770,878.32 215,795.84 98,056.23 (1,558,895.95)		
Total Contributions		5,442,300.00	
FEDERAL CONTRIBUTIONS	• •	20,849.40	
INCOME ON INVESTMENTS: (Note #1) Bond Interest Dividends on Stock	\$ 4,172,946.44 221,479.65	h zoh haf og	
TOTAL INCOME YEAR 1973		4,394,426.09	\$16,126,679.47
TOTAL EXPENDITURES YEAR 1973		• •	7,125,453.71
TOTAL EXCESS INCOME OVER EXPENDITURES	· · · ·		\$ 9,001.,225.76
LESS: INCREASE IN NET TAXES RECEIVABLE	FOR PRIOR YEARS		( 449,845.97)
NET EXCESS INCOME OVER EXPENDITURES YEAD	R 1973	•	<u>\$ 8,551,379.79</u>

Note #1 - Bond interest is reduced by \$2,680,025.81 which represents a loss or difference between the book value and proceeds from sales of bonds. The proceeds were invested in bonds with greater rates of coupons which will result in material gains to the Fund in the future. Dividends on stock includes an amount equal to \$117,827.15 for gains on sales of stock.

#### EXPENDITURES

#### YEAR 1973

BENEFITS PAID:	
Annuities - Employees	\$3,621,764.01
Annuities - Widows	821,448.80
Compensation Widows' Annuities	5,215.56
Child's Annuities	90,085.31
Duty Disability Benefits	201,173.73
Ordinary Disability Benefits	769,990.74
Supplementary Payment Annuities	83,977.28
Total Benefits Paid	\$5,593,655.43

#### Total Benefits Paid

Less: Reimbursement Reciprocal Account

#### Net Annuities Paid

EXPENSE OF ADMINISTRATION: \$ Salaries Survey Audit Investment Counsel Postage Actuarial Department Printing Telephone Rent Premium on Bonds Office Supplies and Miscellaneous Office Equipment and Repairs Blue Cross and Blue Shield

Total Expense of Administration

#### REFUNDS

215,795.84

1,322,311.76

6,309.32

1,538,107.60

\$5,587,346.11.

TOTAL EXPENDITURES YEAR 1973

\$7,125,453.71

## 62,990.84 350.00 3,500.00 15,750.00 3,000.00 95,960.00 4,394.96 887.02

19,213.36

5,386.03

1,446.59

2,777.04

140.00

### HISTORY 1964 TO 1973

## AVERAGE ANNUAL SALARIES ENTIRE FUND

#### AND

#### INVESTMENT YIELDS EXCLUDING GAINS AND LOSSES

(BONDS AT AMORTIZED VALUES. STOCKS AT COST)

				%	Investment Yields &
	Av	erage Annual Salar	r	Increase of Preceding	Excluding Gains and
Year	Male	Female	Both	Year	Losses
1964 1965 1966 1967 1968 1969 1970 1971 1972 1973	\$ 6,814.13 7,016.04 7,310.22 7,762.28 8,306.37 8,900.03 9,907.10 10,977.90 11,274.80 12,097.00	\$ 2,675.20 2,647.02 2,735.50 2,934.24 3,420.74 3,890.10 4,393.16 4,805.00 5,177.51 5,551.62	\$ 5,648.41 5,773.80 5,953.54 6,451.28 7,117.62 7,782.34 8,714.23 9,636.11 10,035.00 10,827.73	1.022% 1.031 1.084 1.103 1.120 1.120 1.120 1.06 1.042 1.080	3.83% 4.08 4.17 4.30 4.59 4.76 4.97 5.68 5.97

#### Average increase per year for both.

Annual salary compounded 1964 to 1973, 7-1/2%.

AND LIABILITIES

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ASSETS

YEAR 1973

COMPARATIVE ANALYSIS

BENEFIT FUND

EMPLOYEES ' ANNULTY AND

LABORERS' AND RETIREMENT BOARD

Page 6.

# COMPARATIVE ANALYSIS

# ASSETS

			Increase
	Jan. 1, 1973	Dec. 31, 1973	or (Decrease)
CASH ON DEPOSIT	<u>\$(    379,899.30</u> )	\$ 1,004,331.23	<u>\$1,384,230.53</u>
ACCOUNTS RECEIVABLE: Salary Deductions Accrued Miscellaneous from Employees Total Accounts Receivable	\$ 609,253.37 88,856.67 \$ 698,110.04	\$ 853,020.33 87,908.37 \$ 940,928.70	\$ 243,766.96 ( <u>948.30</u> ) <u>\$ 242,818.66</u>
INTEREST RECEIVABLE: Accrued Interest on Bonds Accrued Interest on Tax Anticipation Warrants Due Bond Interest Receivable	0	\$ 2,096,057.02 0 0	\$ 97,064.48 0 0
Total Interest Receivable	<u>\$ 1,998,992.54</u>	\$ 2,096,057.02	<u>\$ 97,064.48</u>
INVESTMENTS: BondsPar Value BondsPremiums and Discounts Common Stocks Due from Broker	\$116,256,299.11 (2,718,365.96)	5,498,656.69 1,049,586.11	5,498,656.69 1,049,586.11
Total Investments	<u>\$113,537,933.15</u>	\$119,916,164.59	\$6,378,231.44
TAXES RECEIVABLE: City: Uncollected Taxes Reserve for Loss and Cost of Collection Net Taxes Receivable	<pre>\$ 9,338,313.90 4,002,555.00 \$ 5,335,758.90</pre>	\$ 1.0,574,992.40 <u>4,739,088.00</u> \$ 5,835,904.40	\$1,236,678.50 736,533.00 \$ 500,145.50
Park District: Uncollected Taxes Reserve for Loss and Cost of Collection	\$ 42,030.11 20,336.75	\$    46,827.30 22,529.70	\$ 4,797.19 2,192.95
Net Taxes Receivable	\$ 21,693.36	\$ 24,297.60	\$ 2,604.24
GROSS LEDGER ASSETS	\$121,212,588.69	\$129,817,683.54	\$8,605,094.85
LESSACCOUNTS PAYABLE: Miscellaneous to Employees Military Service Deductions Excess from Refunds	\$ 1,138,375.94 <u>1,557.71</u>	\$ 1,192,091.00 <u>1,557.71</u>	\$ 53,715.06
Total Accounts Payable	\$ 1,139,933.65	\$ 1,193,648.71	\$ 53,715.06
NET LEDGER ASSETS	\$120,072,655.04	\$128,624,034.83	<u>\$8,551,379.79</u>

## COMPARATIVE ANALYSIS

## LIABILITIES AND FUND BALANCES

			Increase
	Jan. 1, 1973	Dec. 31, 1973	or (Decrease)
FOR SERVICES AFTER JULY 1, 1935:	Barradow Street and an open street from the barran of the spectra street for the spectra street for the spectra street	concernence and and an an an and	mandal and a construction of the second
LIABILITY RESERVES: ANNUITY PAYMENT FUND ACCOUNT:			
Employee Annuities	\$ 11,662,099.86	\$ 12,613,262.89	\$ 951,163.03
Employees' Annuities Fixed Widow Annuitants	4,915,834,68	4,418,904.84	( 496,929.84)
Wives' Annuities Fixed	5,861,977.68 2,798,584.69	5,968,313.56 2,733,405.03	106,335.88 ( $65,179.66$ )
Total Annuity Payment Fund	\$ 25,238,496.91	\$ 25,733,886.32	\$ 495,389.41
SALARY DEDUCTION FUND ACCOUNT:	<u>+ =);=30; []0; ]]</u>	Ψ 2.7, (33,000.52	φ 497, 509, 41
Employees	\$ 37,595,901.95	\$ 40,648,943.42	\$ 3,053,041.47
Wives of Employees	7,136,404.30	7,805,103.67	668,699.37
Total Salary Deduction Fund	\$ 44,732,306.25	\$ 48,454,047.09	\$ 3,721,740.84
CITY CONTRIBUTION FUND ACCOUNT: Employees	\$ 37,850,061.22	\$ 40,527,562.65	\$ 2,677,501.43
Wives of Employees	μ 37,000,001.22	12,124,116.05	φ 2,077,501.45 827,611.79
Supplemental Annuities	8,785.36	12,826.40	4,041.04
Total City Contribution Fund	<u>\$ 49,155,350.84</u>	<u>\$ 52,664,505.10</u>	\$ 3,509,154.26
OTHER RESERVES:		¢ 2 860 080 05	
Annuity Payment Fund Account Child's Annuity Fund Account	\$ 3,779,097.34 0	\$ 3,860,082.95	\$ 80,985.61 0
Duty Disability Fund Account	0	0	0
Investment and Interest Account Expense of Administration Account	· 0	0	0
Ordinary Disability Fund Account	, 0	Ő	Ŏ
Total Other Reserves	\$ 3,779,097.34	\$ 3,860,082.95	\$ 80,985.61
TOTAL LIABILITY AND OTHER RESERVES			
FOR SERVICE AFTER JULY 1, 1935	\$122,905,251.34	\$130,712,521.46	\$ 7,807,270.12
SUPPLEMENTARY RESERVE	<u>\$                                    </u>	\$ 93,196.30	\$ 18,161.31
PRIOR SERVICE FUND ACCOUNT:			
Estimated Excess Minimum Annuity Provision	\$ 33,794,231,83	\$ 49,396,721.14	\$ 15,602,489,31
Employee Annuitants	11,768,050.02	13,573,230.04	1,805,180.02
Employees' Annuities Fixed Widow Annuitants	63,293.04 794,933.15	53,958.84 851,211.76	(
Wives' Annuities Fixed	689,808.72		49,925.37
Contributions for Employees	14,244.46	12,402.28	( 1,842.18)
Contributions for Wives Salary Deductions for 2% Annuity	6,812.62 2,048,996.88	5,931.55 2,343,142.77	( 881.07) 294,145.89
Total Prior Service Fund	\$ 49,180,370.72	\$ 66,976,332.47	\$ 17.795.961.75
DEDUCT: (PER CONTRA):	<u> </u>	<u>Y</u>	<u>1.~1/1/////////////////////////////////</u>
Obligations of City for Prior		1/60 150 ms ho	*/47 WW MAR 70'
Service Credits	$\frac{52,088,002,01}{52,088,002,01}$	\$1,87, 270, VL704U,	\$(17,070,013,39)
NET LIABILITIES FOR SERVICE PRIOR TO JULY 1, 1935	\$( 2,907,631.29)	\$( 2,181,682.93)	\$ 725,948.36
TOTAL LIABILITIES AND FUND			· · · · ·
BALANCES	\$120,072,655.04	\$128,624,034.83	<u>\$ 8,551,379.79</u>

#### CASH RECONCILIATION

RECEIPTS AND DISBURSEMENTS

\$

## YEAR 1973

Balance as of January 1, 1973

\$( 379,899.30)

RECEIPTS:
Salary Deductions:
Errors in Deductions
Salary Deductions
Interest on Bonds
Dividends on Stocks
Installments on Taxes - City
Installments on Taxes - Park
Treasurer's Receipts
Cancelled Checks
Bonds Matured and Redeemed
(Par Value)
Bonds Sold (Par Value)
Principal prepayment
Emergency Employee Account
Stocks Sold
Miscellaneous (Adjustment for
Withheld Federal Income Tax)

Total Receipts

DISBURSEMENTS: Annuities - Employees Annuities - Widows Annuities - Children O. D. Benefits D. D. Benefits Refunds Operating Expenses Securities Purchased Accrued Interest Purchased Stocks Purchased

Total Disbursements

Excess Disbursements Over Receipts

Balance December 31, 1973

## 162,162.93 5,865,545.62 6,512,549.45 103,652.50 4,472,465.03 17,239.26 93,434.16 19,999.31 64,529,000.00 61,765,000.00 10,602.00 20,849.40 610,316.20

\$144,182,895.86

\$ 3,715,633.69
831,798.35
90,405.31
642,312.09
162,810.62
1,527,899.45
215,815.84
132,550,244.07
154,519.28
2,907,226.63

142,798,665.33

1,384,230.53

\$1,004,331.23

## TAXES

# DECEMBER 31, 1973

# TAXES COLLECTIBLE - CITY:

Year	Uncollected 12-31-73	Estimate for Loss and Cost 12-31-73	Additional Estimate Set Up <u>12-31-73</u>	Total Estimate for Loss and Cost <u>12-31-73</u>	Net Taxes Collectible 12-31-73
1964 1965 1966 1967 1968 1969 1970 1971 1972 1973	<pre>\$ 325,073.21 382,532.62 364,182.12 501,976.36 449,287.85 516,359.24 543,038.88 650,113.25 817,428.87 6,025,000.00</pre>	\$ 316,707.00 372,599.00 353,964.00 400,909.00 392,598.00 405,289.00 454,321.00 476,104.00 522,675.00	\$ 83,460.00 39,260.00 81,058.00 61,444.00 78,490.00 97,710.00 602,500.00	\$ 316,707.00 372,599.00 353,964.00 484,369.00 431,858.00 486,347.00 515,765.00 554,594.00 620,385.00 602,500.00	\$ 8,366.21 9,933.62 10,218.12 17,607.36 17,429.85 30,012.24 27,273.88 95,519.25 197,043.87 5,422,500.00
Total	\$10,574,992.40	\$3,695,166.00	\$1,043,922.00	\$4,739,088.00	\$5,835,904.40
TAXES RECI	EIVABLE - PARK DI	STRICT:			
1963 1964 1965 1966 1967 1968 1969 1970 1971 1972 1973	\$ 2,106.80 2,065.00 2,102.88 2,333.33 2,696.83 861.53 3,057.89 2,386.68 2,802.77 4,413.59 22,000.00	\$ 2,107.54 2,065.48 2,103.54 2,336.14 2,510.16 863.89 2,200.00 2,025.00 2,125.00 2,200.00	\${ .74 .48 ( .66 ( 2.81) ( 2.36)	) 2,065.00 ) 2,102.88 ) 2,333.33 2,510.16	\$ 0 0 1.86.67 0 857.89 386.68 777.77 2,288.59 19,800.00
Total	\$ 46,827.30	\$ 22,536.75	<u>\$( 7.05</u> )	\$ 22,529.70	\$ 24,297.60
Grand Totals	\$10,621,819.70	\$3,317,702.75	<u>\$1,043,914.95</u>	\$4,761,617.70	\$5,860,202.00

#### SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

#### METHOD:

The unfunded liability or obligations of the Fund for Prior Service Liabilities, or liabilities which have been accrued prior to the valuation date, have been computed on the entry-age-normal method of valuation with interest at the valuation rate on the unfunded liability. No funds are provided for amortization of this liability.

Age at entrance valuation groups were 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, and 55-59.

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:

- 1) Duty Disability Benefits.
- 2) Ordinary Disability Benefits.
- 3) Children's Annuities.
- 4) Refunds..including refunds for no wife (a percentage of members are assumed married).
- 5) Expense of Administration.

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

#### ACTUARIAL ASSUMPTIONS:

MORTALITY: For mortality for members in the active service the 1951 Group Annuity Table was used for female lives, and the Combined Annuity Mortality Table for male lives. These rates of mortality approximate those experienced by the members of the Municipal Fund for the years 1971 and 1972. For retirement annuitants and wives the 1951 Group Annuity Mortality Table was used. The experience for 1971--1972 based on Municipal experience indicates this Table's adequacy and indicates a change from the Combined Table used in the 1972 valuation.

INTEREST: 5% a year, compounded annually. The preceding valuation rate was at 4-1/2%. On page five of this report a statement indicates the investment yields the Fund actually realized on investments valued over the past nine years. The average for the last five years was 5.19%. Interest earnings over the assumed 5% 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 3-1/2% rate assumed.

SALARY SCALE: 3-1/2% a year, compounded annually. The preceding valuation used a 3% rate. Page five of this report shows that the annual increase in total average salary for the past nine years has been about 7-1/2%. It is is believed that a 7-1/2% pattern, or greater, will continue 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 long range 3-1/2% assumption.

#### SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

Social Security contributions are now based on a projection of 5% compounded annually for future wages and salary. Such a pattern will have a powerful influence on salary scales.

RATES OF RETIREMENT OR PROBABILITY OF WITHDRAWAL: The rates of retirement used in this 1973 valuation are shown on page 12....for each age of entrance group into the service and are based on the combined 1971 and 1972 experience of the Municipal Fund...modified to give effect to the greater rates of retirement in 1972 resulting from the impact of the first full calendar year during which the new annuity formula was in effect.

The Municipal Fund experience with a greater number of employees into a similar experience was thought to be representative of the Laborers' Fund.

The rates or probabilities of retirement used are considerably greater than used in the 1972 valuation. The experience for the year 1974 data indicates rates of retirement approximating those used for this valuation.

TERMINATION RATES OR PROBABILITY OF WITHDRAWAL: These rates are shown on page 13. . . They are slightly greater than those used in the 1972 valuation and are based on the experience of the Laborers' Fund for the year 1971 and 1972. They are slightly greater than the corresponding rates of the Municipal Fund.

#### THE SALARY SCALE AND PROPORTION OF MALES MARRIED ARE SHOWN ON PAGE FIFTEEN.

ACTIVE MEMBERSHIP: It is assumed that the future active membership of the Fund will approximate its present membership, which as of December 31, 1973 was made up of 5,443 males and 1,309 females.

## SERVICE TABLE FUNCTIONS

# Probability of Retirement

Male			10		1			
Attained	Age at 1	Entrance				•		
Age	22	27	32	37	42	47	52	57
60 61 63 64 65 70 75	10.2 13.2 15.6 17.4 18.5 32.0 36.5 100.0	6.6 8.4 10.2 12.0 13.8 26.0 33.0 100.0	5.1 6.3 8.1 10.5 12.4 23.2 30.8 100.0	3.9 4.8 6.0 7.8 11.1 21.5 29.2 100.0	1.9 2.8 3.9 5.1 6.3 14.5 26.5 100.0	0.7 1.8 3.0 5.0 7.5 22.5 100.0	0.5 1.5 2.5 3.5 5.0 16.0 100.0	0.4 0.3 1.2 1.8 2.5 9.0 100.0
Female					•			
55 56 57 58 59 60 61 62 63 64 65 70 75	4.8 5.8 6.8 8.0 9.5 11.0 12.5 15.0 18.5 25.0 30.8 35.0 100.0	3.5 4.5 5.5 6.3 7.3 8.0 9.5 10.8 12.5 14.5 23.5 32.0 100.0	3.0 4.0 4.5 5.5 6.5 7.0 8.5 10.0 11.5 13.0 15.0 28.5 100.0	2.0 2.8 3.5 4.2 5.0 5.5 6.5 7.5 9.0 10.5 12.5 24.0 100.0	1.0 1.5 2.3 3.0 3.6 4.5 5.5 6.5 7.5 9.5 11.0 20.5 100.0	0.5 1.0 1.8 2.5 3.0 4.0 5.0 6.0 7.5 9.0 17.5 100.0	0.2 1.0 2.0 3.0 3.7 4.5 5.7 7.0 14.5 100.0	0.8 2.0 3.0 4.0 5.0 12.5 100.0

Attained Age	Salary Scale 3-1/2% Per Year	Male Combined Rate	Male Death Rate 1951 GA Per 1,000	Female Death Rate 1951 GA Per 1,000	Proportion of Males Married
22	1.035	2.1	.6	.4	81
27	1.229	2.2	.8	.5	81
32	1.459	2.6	1.1	.7	81.
37	1.733	3.6	1.5	1.0	80
42	2.059	5.5	2.4	1.5	83
147	2.445	8.1	4.5	2.3	83
52	2.905	12.1	7.9	3.5	84
57	3.450	18.1	12.2	5.6	82
62	4.097	27.0	18.3	9.8	80
67	4.866	40.1	30.1	16.5	78
70	5.396	50.8	39.3	23.1	74
75	6.408	69.5	62.4	44.3	74

#### SERVICE TABLE FUNCTIONS

# Probability of Withdrawal from Service with Refund

Male

participant and								
Attained	Age at	Entrance						
Age	22	27	32	37	42	47	52	57
22	19.0	57 5		T2.	-	ft	67.	<b>*</b> *
27	10.0	16.0	=	£ze		622	635	. <b>19</b> 1.
32	4.8	8.0	12.5	tos .	t <del></del>	<b>E</b> 11	<b>217</b> .	. arg.
37 42	2.5	4.5	7.0	12.5	·	<b>.</b> .	( <del></del>	. 127 .
42	1.0	2.5	3.4	5.7	12.0		ferst.	PE
47	0	•5	1.5	2.4	5.0	11.0	0 -	-
52	0	0	0	.6	1.5	3.5	8.5	0 4
57 .	0	0	0	0	0	•5	3.2	0.8
							-	
							•	•
Female								
22	16.5	2m			<b>6</b> -7	<b>s</b> ia	<b>5</b> 2	·
27	12.0	13.0	<b>5</b> .0	en e	63	tar-	. Cə	
32	7.0	8.0	9.0	<b>6</b> 22	ET.	e		QS
37	3.5	4.0	5.5	6.5	-	-	· •••	-
42	1.2	2.0	3.2	4.5	5.0	63 <sup>1</sup>	F24 .	-
47	0.5	1.0	<b>i.</b> 8	2.5	3.1	4.0	63	1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 -
52	ō	· 0	0.6	1.0	2.0	2.6	3.5	¢10
57	0	0	0	0	0.7	1.5	2.1	3.5

## MEMBERSHIP STATISTICS

## YEAR 1973

#### A. CHANGES IN ACTIVE PARTICIPANTS:

	Male	remale	Total
Number at Beginning of Fiscal Year Increases Decreases	5,553 780 890	1,418 13 122	6,971 793 1,012
Number at End of Fiscal Year	5,443	1,309	6,752

#### B. CHANGES IN ANNUITANTS AND BENEFICIARIES:

	Number at Beginning of Year	Increases	Decreases	Number At End <u>of Year</u>
Employee Annuities	1,724	118	65	1,777
Widow Annuities	932	91	56	967
Children Annuities	201	30	23	208
Ordinary Disability Benefits	113	182	171	124
Duty Disability Benefits	8	306	292	22
Widow Compensation Annuities	. 3	0	0	3
Reversionary	0	1	0	l
Reciprocals		7	3	21
	2,998	735	<u>610</u>	<u>3,123</u>

### SALARY AND AGE STATISTICS

## AS OF DECEMBER 31, 1973

# MALE

	Sala	Ages at Entrance and Salaries as of December 31, 1973		and Salaries as of ber 31, 1973
	Number	Salaries	Number	Salaries
Under 20 20 to 24 25 to 29 30 to 34 35 to 39 40 to 44 45 to 49 50 to 54 55 to 59 60 to 64 65 to 69 70 and Over Without Record	1,153 848 832 779 733 465 291 162 51 <u>129</u> 5,443	\$ 14,348,808.00 10,468,248.00 10,099,464.00 9,505,080.00 8,704,320.00 5,472,576.00 3,374,832.00 1,837,440.00 590,592.00 1,440,408.00 \$65,841,768.00	35 300 350 457 457 527 750 830 729 586 198 95 129 <u>5,443</u>	<pre>\$ 401,976.00 3,515,496.00 4,142,016.00 5,588,976.00 5,496,864.00 6,384,048.00 9,253,488.00 10,137,366.00 8,907,080.00 7,081,680.00 2,385,792.00 1,105,608.00 1,440,408.00</pre>
	Total Average Ar	mual Salary \$1	2,096.60	

Under 20 \$ 1 \$ 5	,400.00
20  to  24 17 148.872.00 1 8	,064.00
25 to 29 52 346.896.00 2 11	,328.00
30  to  34 120 $784,536.00$ 7 49	,488.00
243 $1,444,944.00$ $33$ $203$	,712.00
40 to 44 328 1,852,464.00 79 47	,456.00
45 to 49 318 1,637,688.00 155 881	,712.00
$50 \pm 0.54$ 170 790.752.00 281 1,546	,200.00
55 to 59 48 186.456.00 368 2,010	,072.00
60 + 64 7 $44.712.00$ 268 1.45	,976.00
65 + 6 69 84 439	528.00
70 and Over 24 159	,384.00
Without Record <u>6 29,760.00</u> <u>6 20</u>	,760.00
1,309 \$7,267,080.00 1,309 \$7,267	,080.00

\$5,551.63 Total Average Annual Salary

## ANNUITANTS CLASSIFIED BY AGE AND AMOUNTS

# YEAR 1973

## ANNUITANTS

Age	Male	Amount	<u>Female</u>	Amount	Widows	Amount
Under 50	6	\$ 3,304.20	0	\$ O	77	\$ 66,892.44
50 to 54	2	2,395.08	0	0	67	58,729.08
55 to 59	27	76,669.32	22	20,056.20	1.09	114,054.24
60 to 64	104	372,497.16	69	75,253.44	153	166,381.32
65 to 69	240	763,576.56	217	255,715.08	141	127,440.60
70 to 74	277	764,201.28	169	197,717.76	155	147,352.92
75 and Over	382	947,607.12	262	302,861.28	265	179,559.84
	1,0 <u>38</u>	\$2,930,250.72	<u>739</u>	\$851,603.76	<u>967</u>	\$860,410.44
			• •			
Total Average Annual Annuity	Male	\$ 2,822.98	Female	<u>\$ 1,152.37</u>	Widows	<u>\$     889.77</u>