

Public Employees Retirement Association

ACTUARIAL VALUATION REPORT  
(Based on a June 30, 1976 Census)

 **FILE COPY**

Public Employees Retirement Association

TABLE OF CONTENTS

	<u>Page No.</u>
<u>Letter of Transmittal</u>	1
<u>Summary of Actuarial Requirements</u>	2
<u>Value of Benefits Earned to June 30, 1976</u>	3
<u>General Fund</u>	
Exhibit 1 Accounting Balance Sheet	4 - 5
Exhibit 2 Sources and Uses of Funds	6
Exhibit 3 Accounting Statement of Income and Expenses	7 - 9
Exhibit 4 Reconciliation of Asset Balances	10
Exhibit 5 Asset Allocation	11
Exhibit 6 Actuarial Assumptions	12 - 18
Exhibit 7 Financial Balance Sheet	19
Exhibit 8 Actuarial Requirements	20
Exhibit 9 Actuarial Requirements	21
Exhibit 10 Statement of Revenue, Expenditures Changes in Reserves and Experience Gain (Loss)	22
Exhibit 11 Reconciliation of Change in Actuarial Reserves	23
Exhibit 12 Reconciliation of Active Members	24
Exhibit 13 Reconciliation of Annuitants	25
<u>Police and Fire Fund</u>	
Exhibit 14 Accounting Balance Sheet	26
Exhibit 15 Sources and Uses of Funds	27
Exhibit 16 Accounting Statement of Income and Expenses	28 - 29
Exhibit 17 Reconciliation of Asset Balances	30
Exhibit 18 Actuarial Assumptions	31 - 35
Exhibit 19 Financial Balance Sheet	36
Exhibit 20 Actuarial Requirements	37
Exhibit 21 Actuarial Requirements	38
Exhibit 22 Statement of Revenue, Expenditures Changes in Reserves and Experience Gain (Loss)	39
Exhibit 23 Reconciliation of Change in Actuarial Reserves	40
Exhibit 24 Reconciliation of Active Members	41
Exhibit 25 Reconciliation of Annuitants	42
Supporting Exhibits	43 - 51

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Table of Contents  
(Continued)

Basic Members

Exhibit 32	Financial Balance Sheet	52
Exhibit 33	Actuarial Requirements	53
Exhibit 34	Actuarial Requirements	54
Exhibit 35	Statement of Revenue, Expenditures Changes in Reserves and Experience Gain (Loss)	55
Exhibit 36	Reconciliation of Change in Actuarial Reserves	56
Exhibit 37	Reconciliation of Active Members	57
Exhibit 38	Reconciliation of Annuitants	58
Supporting Exhibits		59 - 71

Coordinated Members

Exhibit 49	Financial Balance Sheet	72
Exhibit 50	Actuarial Requirements	73
Exhibit 51	Actuarial Requirements	74
Exhibit 52	Statement of Revenue, Expenditures Changes in Reserves and Experience Gain (Loss)	75
Exhibit 53	Reconciliation of Change in Actuarial Reserves	76
Exhibit 54	Reconciliation of Active Members	77
Exhibit 55	Reconciliation of Annuitants	78
Supporting Exhibits		79 - 87

# COMPENSATION & CAPITAL INCORPORATED

125 SOUTH WACKER DRIVE

CHICAGO, ILLINOIS 60606

TELEPHONE 312 332-4420

November 15, 1976

Board of Trustees  
Public Employees Retirement Association  
203 Capitol Square Building  
550 Cedar Street  
St. Paul, Minnesota 55101

Gentlemen:

In accordance with your request, we have made an actuarial valuation of the Public Employees Retirement Association of the State of Minnesota for the year ended June 30, 1976, in order to determine the adequacy of the contributions being made to that system and to prepare the financial and actuarial reports as required by the laws of the State of Minnesota.

The results of our analysis are set forth in the following report. The basic financial and employee data are those submitted to us by the Association office; the summaries and actuarial figures are those prepared by us from such data.

On the basis of the foregoing, and the assumptions indicated herein, we hereby certify that, to the best of our knowledge and belief, the attached statements are true and correct. A copy of this report will supply the data required by the legislative commission for the year ended June 30, 1976.

Respectfully submitted,

COMPENSATION & CAPITAL INCORPORATED

*Davis H. Roenisch*

Davis H. Roenisch  
Fellow, Society of Actuaries

DHR:tmk

PUBLIC EMPLOYEES RETIREMENT ASSOCIATION

SUMMARY OF ACTUARIAL REQUIREMENTS  
(July 1, 1976)

General Fund	Police and
Fund	Fire Fund
<u>Exhibit 8</u>	<u>Exhibit 20</u>
<u>Page 20</u>	<u>Page 37</u>

AMORTIZATION RATE REQUIREMENTS

Present Value of Benefit (For Both Past and Future Service) Obligation for Service Rendered to Date	\$1,245,129,541	\$176,881,588
Net Assets	816,093,861	87,155,968
Accrued Unfunded Obligation	511,152,418	67,027,999
Funding Ratio	304,941,443	20,127,969
	63%	77%
Amortization (21-Year) Requirement	\$ 23,784,243	\$ 1,569,903
Covered Payroll	657,609,766	46,848,679
Amortization (21-Year) Rate Requirement	3.617%	3.351%

ENTRY AGE NORMAL RATE REQUIREMENT

Value of Benefits to be Earned in the Future	\$ 429,035,680	\$ 89,725,620
Present Value of Future Payroll	4,692,525,000	548,304,900
Normal Cost Rate Requirement	9.143%	16.364%
Employee Contribution Rate	5.155 *	8.000
Employer Normal Cost Rate Requirement	<u>3.988%</u>	<u>8.364%</u>

ACTUARIAL BALANCE

Employer Contribution Rate Set by Law	6.944%*	12.000%
Amortization (21-Year) Rate Requirement	3.617%	3.351%
Normal Cost Rate Requirement	3.988	8.364
Allowance for Expenses	<u>0.148</u>	<u>0.092</u>
Total Requirement	<u>7.753%</u>	<u>11.807%</u>
Excess (Deficit) of Employer Contribution Rate Set by Law and Total Requirement	<u>(0.809%)</u>	<u>0.193%</u>

\* Weighted by Covered Payroll 28.88% Basic and 71.12% Coordinated

PUBLIC EMPLOYEES RETIREMENT ASSOCIATION

Value of Benefits Earned to June 30, 1976

	<u>General Fund</u>	
	<u>Without 5% per year increase*</u>	<u>With 5% per year increase*</u>
Benefits Payable to Retired Members and their Beneficiaries	\$190,884,740	\$190,884,740
Deferred Vested Benefits Payable to Inactive Members	5,170,131	5,170,131
Active Members:		
a. Eligible for Normal Retirement	37,399,890	37,399,890
b. Eligible for Early Retirement	83,361,074	83,361,074
c. Eligible for Deferred Benefits	246,667,276	486,685,919
d. Under 10 years service (Refund of Contributions only)	<u>54,988,582</u>	<u>54,988,582</u>
<u>Total</u>	<u>\$618,471,693</u>	<u>\$858,490,336</u>

	<u>Police and Fire Fund</u>	
Benefits Payable to Retired Members and their Beneficiaries	\$ 14,461,922	\$ 14,461,922
Deferred Vested Benefits Payable to Inactive Members	885,721	885,721
Active Members:		
a. Eligible for Normal Retirement	15,589,831	15,589,831
b. Eligible for Early Retirement	-	-
c. Eligible for Deferred Benefits	35,964,691	61,151,755
d. Under 10 years service (Refund of Contributions only)	<u>8,131,075</u>	<u>8,131,075</u>
<u>Total</u>	<u>\$ 75,033,240</u>	<u>\$100,220,304</u>

\* Applies only to present active with 10 or more years of service. The value for Deferred Vested Benefits of inactive members includes 5% per year increases to Normal Retirement Date plus refund of contributions to inactive members with less than 10 years of service.

General Fund

Accounting Balance Sheet

June 30, 1976

ASSETS

Cash:		
On Hand	\$	50.00
On Deposit		<u>20,804.79</u>
		\$ 20,854.79
Accounts Receivable:		
Employer contributions (see attached schedule)	\$	117,026.71
From Minnesota State Retirement System and Teachers Retirement Association		28,405.56
From Police and Fire Fund		56,645.30
Minnesota General Revenue Fund (supplemental payments)		7,025.49
Accrued interest on bonds and short-term notes		3,732,047.18
Accrued dividends		582,396.50
Interest on late employer contributions and delinquent payrolls		22,245.49
Other		<u>1,175.43</u>
		<u>4,546,967.66</u>
Total Current Assets		\$ 4,567,822.45
Investments:		
Bonds - at amortized cost -		
U.S. Government	\$	11,184,384.54
Municipal		2,123,000.00
Corporate		148,216,421.16
Canadian Government Insured		33,989,970.13
Stock - Common - at cost		<u>167,413,649.47</u>
		362,927,425.30
Minnesota Adjustable Fixed Benefit Fund		141,334,389.76
Deferred yield adjustment		2,826,882.28
Miscellaneous:		
Office equipment - less accumulated depreciation	\$	25,511.92
Prepaid expense		14,118.97
Prepaid interest		<u>24,888.89</u>
		<u>64,519.78</u>
Total Assets,		<u>\$ 511,721,039.57</u>

Accounting Balance Sheet (Continued)

CURRENT LIABILITIES AND RESERVES

Liabilities:

Accounts payable	\$ 39,679.57
Accounts payable to the Police and Fire Fund	12,131.06
Penalties refundable	217.23
Donations suspense	<u>516,590.83</u>
Total Liabilities	\$ 568,621.69

Reserves:

Members accumulated contributions	162,472,170.73
Benefits reserve	207,345,857.39
Reserve for participation in Minnesota	
Adjustable Fixed Benefit Fund	<u>141,334,389.76</u>
Total Liabilities and Reserves	<u>\$ 511,721,039.57</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONGeneral FundSOURCES AND USES OF FUNDS

July 1, 1975 - June 30, 1976

<u>Sources</u>		<u>Uses</u>	
<u>Employee Contributions</u>	\$ 31,729,248.15	<u>Refunds</u>	
<u>Employer Contributions</u>	42,505,116.56	Employee	\$ 5,287,395.45
<u>Various Accounts Receivable</u>	114,875.97	Employer	67,119.66
<u>Investment Income</u>	18,747,322.98	<u>Penalties Refunded</u>	9.79
<u>Investment Sales and</u>		<u>Donations Refunded</u>	27,536.00
<u>Redemptions</u>		<u>Benefits Paid</u>	
Bonds and Notes	427,457,848.39	Retirement	21,559,621.24
Stocks	10,785,712.31	Survivor	4,390,822.52
<u>Cancelled Warrants</u>	140,830.33	Disability	1,123,734.22
<u>Interest Other Than Investment</u>		<u>Direct Expense</u>	969,317.97
<u>Interest</u>	244,465.18	<u>Investment Purchases</u>	
<u>Transfers from Police and</u>		Bonds	460,695,479.52
<u>Fire Fund</u>	11,934.50	Stocks	25,410,100.37
<u>Miscellaneous Income</u>	3,114.57	<u>Payments to Minnesota</u>	
<u>Difference in Cash Accounts</u>		<u>Adjustable Fixed Benefit</u>	
July 1, 1975 and July 1, 1976	217,750.06	<u>Fund</u>	12,174,896.88
		<u>Interest Paid on Refunds</u>	252,135.38
	\$531,958,219.00		
Cash Balance, June 30, 1976	20,804.79		\$ 531,958,219.00
	<u>\$531,979,023.79</u>		

General Fund

Accounting Statement of Income and Expense

July 1, 1975 to June 30, 1976

INCOME

Employer Contributions 8% & 2½%	\$ 18,217,706.58	
Employer Contributions 4% & 1½%	24,234,390.51	
Additional employer contributions	<u>64,317.97</u>	\$ 42,516,415.06
Member contributions		31,666,986.45
Unit matching contributions		<u>1,879.03</u>
Member contributions transferred from Police and Fire Fund	\$ 8,968.52	
Employer contributions transferred from Police and Fire Fund	3,875.66	
Interest on contributions transferred from Police and Fire Fund	<u>101.12</u>	12,945.30
Realized income of the Minnesota Adjustable Fixed Benefit Fund		8,018,144.14
Statutory valuation adjustment in the Minnesota Adjustable Fixed Benefit Fund		(8,735,792.31)
Investment earnings		18,963,319.79
Gain on sales of stock		831,305.94
Interest on back payments and omitted contributions		1,467.10
Interest on refunds repaid		201,820.28
Interest on delinquent employer contributions and late payrolls		49,233.40
Adjustments for prior year entries		(2,325.94)
Other income		<u>1,612.19</u>
Total Income		\$ 93,527,015.43

EXPENSE

Retirement annuities (all paid from Minnesota Adjustable Fixed Benefit Fund)		\$ 19,319,359.24
Survivor Benefits Paid:		
Old Law Survivors	\$1,625,275.45	
With Children	697,138.16	
Without Children	<u>1,224,160.86</u>	3,546,574.47
Disability Benefits Paid		1,034,407.31
Disability Survivors Paid:		
With Children	\$ 64,736.00	
Without Children	<u>171,919.55</u>	236,655.55

Accounting Statement of Income and Expense (Continued)

EXPENSE (Continued)

One-time payment to annuitants and survivors, per Chapter 306, Section 29, Laws 1975		850,900.00
Refund of Deposits:		
Active members due to withdrawal	\$4,860,089.78	
Active members due to death	<u>286,578.66</u>	5,146,668.44
Deferred members due to withdrawal	\$ 26,919.85	
Deferred members due to death	<u>12,906.72</u>	39,826.57
Annuitants to survivors		39,644.46
Survivors to beneficiaries		87.20
Disabilitants to survivors		35,755.66
Donations (\$25.00 and under)		2,834.74
Refunds of employer contributions		65,196.44
Transfers to Police and Fire Fund:		
Member contributions (active)	\$ 6,371.07	
Member contributions (deferred)	1,424.38	
Employer contributions	4,337.11	
Interest payments	<u>1.50</u>	12,134.06
Interest paid on refunds		249,990.42
Administrative Expenses:		
Salaries	\$ 612,029.41	
Rent -		
Office space	\$49,528.96	
Parking space	60.00	
Data processing equipment	<u>61,012.37</u>	110,601.33
Maintenance Service		
Contracts -		
Main office	\$ 3,179.29	
Data Processing Dept.	<u>480.00</u>	3,659.29
Medical expense		17,905.85
Actuarial services		12,250.00
Telephone and telegraph		5,840.33
Postage		71,129.47
Travel		12,485.38
Stationery and office supplies -		
Main office	\$ 9,959.28	
Data Processing Dept.	<u>10,565.20</u>	20,524.48
Publications and sub- scriptions		607.40
Printing		17,715.09
Mailing services		4,485.34
Insurance - fire, theft, vandalism and surety bonds		23.00

Accounting Statement of Income and Expense (Continued)

EXPENSE (Continued)

Employee insurance and hospitalization	\$ 22,567.48		
Employer Social Security taxes	18,493.24		
Depreciation - equipment	5,694.59		
Equipment purchases under \$25.00	93.97		
Tabulating and job processing services	270.77		
Public Employees Retirement Association employer contributions - 1975-1976	45,469.95		
Xerox machine (copying expense)	4,225.03		
Workmen's Compensation & Unemployment Compensation payments	3,135.16		
Minnesota State Retirement System - Assistant Attorney General	673.98		
Building survey	17,000.00		
Utilities charged to PERA by State Adm. Dept.	8,916.63		
Miscellaneous expenses	<u>47.40</u>		
Total Administrative Expenses	\$1,015,844.57		
Less percentage (4.234206387%) charged to Police and Fire Fund	<u>43,012.96</u>	<u>972,831.61</u>	<u>31,552,866.17</u>
Excess of Income over Expense for the Year Ended June 30, 1976			<u>\$ 61,974,149.26</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATION

EXHIBIT 4

General Fund

Reconciliation of Asset Balances

- June 30, 1976 -

Asset Balance, July 1, 1975			\$449,178,268.62
Add:			
Employer contributions		\$42,518,294.09	
Employee contributions		31,666,986.45	
Employer and employee contributions transferred from Police and Fire Fund		12,945.30	
Realized income of the Minnesota Adjustable Fixed Benefit Fund		8,018,144.14	
Statutory valuation adjustment in the Minnesota Adjustable Fixed Benefit Fund		(8,735,792.31)	
Investment earnings		18,963,319.79	
Gains on sales of stock		831,305.94	
Interest on back payments, refunds repaid and delinquent employer contributions		252,525.78	
Other income		<u>1,612.19</u>	
Total Additions			<u>93,529,341.37</u>
			\$542,707,609.99
Deduct:			
Benefits paid -			
Retirement	\$19,319,359.24		
Survivor	3,783,230.02		
Disability	1,034,407.31		
One-time payment to annuitants and survivors per Chapter 306, Sec. 29, Laws 1975	<u>850,900.00</u>	\$24,987,896.57	
Refunds		5,330,013.51	
Transfers to Police and Fire Fund		12,134.06	
Adjustments for prior year entries		2,325.94	
Interest paid on refunds		249,990.42	
Administrative expenses		<u>972,831.61</u>	
Total Deductions			<u>31,555,192.11</u>
			\$511,152,417.88
Current Liabilities and Accounts Payable			<u>568,621.69</u>
Asset Balance, June 30, 1976			<u>\$511,721,039.57</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONASSET ALLOCATION  
(July 1, 1976)

	<u>Basic Fund</u>	<u>Coordinated Fund</u>	<u>General Fund Total</u>
Asset Balance July 1, 1975	\$330,333,050.82	\$118,845,217.80	\$449,178,268.62
1. Employer Contributions	18,354,481.87	24,416,338.00	42,770,819.87
2. Employee Contributions	13,951,449.07	17,715,537.38	31,666,986.45
3. Transfer From Police & Fire Fund	811.24	-	811.24
4. Benefits Paid			
(i) Survivor	-3,780,508.24	- 2,721.78	-3,783,230.02
(ii) Disability	- 927,433.31	- 106,974.00	-1,034,407.31
(iii) One Time Payment	- 750,400.00	- 100,500.00	- 850,900.00
5. Refunds	- 203,427.36	-5,376,576.57	-5,580,003.93
6. Net (Sum of 1 thru 5)	<u>\$ 26,644,973.27</u>	<u>\$ 36,545,103.03</u>	<u>\$ 63,190,076.30</u>
7. Benefits Paid From MAFBF	-17,151,497.69	- 2,167,861.55	-19,319,359.24
8. Income From MAFBF	7,071,781.91	946,362.23	8,018,144.14
9. Investment Income	12,908,182.08	6,885,729.90	19,793,911.98
10. Administrative Expenses	- 329,101.47	- 643,730.14	- 972,831.61
11. Adjustment to MAFBF	- 7,704,727.80	- 1,031,064.51	- 8,735,792.31
12. Net (Sum of 7 thru 11)	- 5,205,362.97	3,989,435.93	- 1,215,927.04
13. Income for Year (Sum of 6 plus 12)	<u>21,439,610.30</u>	<u>40,534,538.96</u>	<u>61,974,149.26</u>
Asset Balance July 1, 1976	<u>\$351,772,661.12</u>	<u>\$159,379,756.76</u>	<u>\$511,152,417.88</u>
Estimated Allocation MAFBF	<u>\$122,586,660.22</u>	<u>\$ 18,747,729.54</u>	<u>\$141,334,389.76</u>

Public Employees Retirement Association

General Fund

ACTUARIAL ASSUMPTIONS

The assumptions can be summarized as follows:

Interest:	5%
Mortality:	1965 Group Annuity
Retirement Age:	65 for employees who have less than 30 years of service. For employees with 30 or more years of service - 30% at age 62, 15% at ages 63 and 64, and 100% at age 65.
Disability:	PERA Experience
Turnover:	PERA Experience
Salary Scale:	3 1/2% per year

A detailed statement of the mortality rates, disability rates, turnover factors, and salary scale is set out in the following Tables 1 through 4.

Public Employees Retirement AssociationGeneral FundMale EmployeesMORTALITY RATES  
(Per 1,000 Employees)

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
20	.517	45	3.002
21	.537	46	3.409
22	.558	47	3.856
23	.581	48	4.344
24	.607	49	4.869
25	.636	50	5.429
26	.667	51	6.027
27	.703	52	6.656
28	.742	53	7.321
29	.784	54	8.019
30	.831	55	8.751
31	.884	56	9.514
32	.941	57	10.312
33	1.005	58	11.154
34	1.074	59	12.057
35	1.152	60	13.043
36	1.237	61	14.143
37	1.331	62	15.390
38	1.435	63	16.828
39	1.550	64	18.504
40	1.677	65	20.475
41	1.838		
42	2.054		
43	2.322		
44	2.639		

Public Employees Retirement AssociationGeneral FundFemale EmployeesMORTALITY RATES  
(Per 1,000 Employees)

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
20	.311	45	1.672
21	.330	46	1.819
22	.349	47	1.980
23	.369	48	2.158
24	.392	49	2.355
25	.415	50	2.574
26	.439	51	2.783
27	.466	52	3.016
28	.496	53	3.277
29	.527	54	3.570
30	.561	55	3.898
31	.597	56	4.278
32	.637	57	4.727
33	.681	58	5.253
34	.728	59	5.867
35	.780	60	6.572
36	.836	61	7.369
37	.898	62	8.258
38	.966	63	9.232
39	1.040	64	10.284
40	1.122	65	11.402
41	1.213		
42	1.311		
43	1.420		
44	1.540		

Public Employees Retirement AssociationGeneral FundAll EmployeesDISABILITY RATES  
(Per 1,000 Employees)

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
20	.69	45	3.17
21	.73	46	3.41
22	.77	47	3.67
23	.81	48	3.94
24	.86	49	4.25
25	.91	50	4.61
26	.96	51	5.01
27	1.02	52	5.48
28	1.08	53	6.00
29	1.15	54	6.53
30	1.22	55	7.12
31	1.29	56	7.76
32	1.37	57	8.45
33	1.45	58	9.17
34	1.54	59	9.91
35	1.63	60	10.69
36	1.73	61	11.53
37	1.84	62	12.38
38	1.96	63	13.25
39	2.09	64	14.15
40	2.23		
41	2.38		
42	2.55		
43	2.74		
44	2.94		

Public Employees Retirement Association

General Fund

Male Employees

SEPARATION RATES  
(Per 1,000 Employees)

<u>Age</u>	<u>Separation</u>	<u>Age</u>	<u>Separation</u>
20	275.0	40	81.8
21	263.8	41	76.2
22	250.5	42	71.5
23	239.0	43	67.0
24	226.5	44	62.2
25	216.0	45	58.0
26	204.5	46	53.9
27	192.5	47	49.7
28	182.0	48	45.0
29	171.5	49	42.0
30	161.0	50	38.5
31	152.8	51	34.5
32	143.5	52	31.0
33	133.0	53	27.0
34	124.5	54	23.0
35	117.0	55	19.5
36	109.2	56	15.0
37	101.0	57	10.0
38	94.0	58	5.0
39	88.0		

Public Employees Retirement AssociationGeneral FundFemale EmployeesSEPARATION RATES  
(Per 1,000 Employees)

<u>Age</u>	<u>Separation</u>	<u>Age</u>	<u>Separation</u>
20	383.2	40	134.0
21	377.7	41	123.0
22	371.2	42	113.0
23	363.1	43	104.5
24	351.6	44	97.2
25	335.6	45	90.0
26	322.6	46	83.0
27	310.3	47	78.7
28	299.7	48	74.5
29	289.1	49	70.4
30	280.5	50	66.3
31	269.4	51	62.8
32	259.0	52	59.5
33	246.3	53	55.5
34	232.5	54	52.2
35	216.0	55	47.8
36	199.0	56	41.0
37	183.0	57	36.2
38	165.0	58	21.0
39	148.5	59	5.0

Public Employees Retirement AssociationGeneral FundALL EMPLOYEESEARNINGS PROGRESSION

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
20	.2127	45	.5024
21	.2201	46	.5200
22	.2278	47	.5382
23	.2358	48	.5570
24	.2441	49	.5765
25	.2526	50	.5967
26	.2614	51	.6176
27	.2705	52	.6392
28	.2800	53	.6616
29	.2898	54	.6848
30	.2999	55	.7088
31	.3104	56	.7336
32	.3213	57	.7593
33	.3325	58	.7859
34	.3441	59	.8134
35	.3561	60	.8419
36	.3686	61	.8714
37	.3815	62	.9019
38	.3949	63	.9335
39	.4087	64	.9662
40	.4230	65	1.0000
41	.4378		
42	.4531		
43	.4690		
44	.4854		

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONFINANCIAL BALANCE SHEET  
(Year Commencing July 1, 1976)General FundRESERVES

## Entry Age Normal Reserves

Retirement	\$ 816,470,132		
Vesting	113,232,395		
Disability	52,671,907		
Survivors	36,687,598		
Refund	<u>30,012,638</u>		
	\$1,049,074,670		
Less Value of Benefits to be Earned in the Future	429,035,680	\$620,038,990	
Vested Members		5,170,131	
Retired Members Retirements Payable from Minnesota Adjustable Fixed Benefit Fund	\$ 141,334,390		
Disability	8,118,621		
Survivors	34,705,122		
Reserve for Future Old Law Survivors	10,165,433		
Less Receivable from Minnesota Adjustable Fixed Benefit Fund	<u>- 3,438,826</u>	<u>\$190,884,740</u>	<u>\$816,093,861</u>
Unfunded Obligation			<u>304,941,443</u>
Funded Obligation			<u>\$511,152,418</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONACTUARIAL REQUIREMENTS  
(July 1, 1976)General FundAMORTIZATION RATE REQUIREMENT

Present Value of Benefits (For Both Past and Future Service)			\$1,245,129,541
Obligation for Service Rendered to Date	\$	816,093,861	
Net Assets		511,152,418	
Accrued Unfunded Obligation		304,941,443	
Funding Ratio			63%
Amortization (21-Year) Requirement	\$	23,784,243	
Covered Payroll		657,609,766	
Amortization (21-Year) Rate Requirement			<u>3.617%</u>

ENTRY AGE NORMAL RATE REQUIREMENT

Value of Benefits to be Earned in the Future	\$	429,035,680	
Present Value of Future Payroll		4,692,525,000	
Normal Cost Rate Requirement			
Employee Contribution Rate*		9.143%	
Employer Normal Cost Rate Requirement		<u>5.155</u>	<u>3.988%</u>

ACTUARIAL BALANCE

Employer Contribution Rate Set by Law*			6.944%
Amortization (21-Year) Rate Requirement		3.617%	
Normal Cost Rate Requirement		3.988	
Allowance for Expenses		<u>0.148</u>	
Total Requirement			7.753%
Excess (Deficit) of Employer Contribution Rate Set by Law and Total Requirement			<u>(0.809%)</u>

\* Weighted by Covered Payroll 28.88% Basic and 71.12% Coordinated

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONACTUARIAL REQUIREMENTS  
(July 1, 1976)General FundAMORTIZATION RATE REQUIREMENT

	Period			
	<u>10-Year</u>	<u>20-Year</u>	<u>30-Year</u>	<u>40-Year</u>
Accrued Unfunded Obligation	\$304,941,443	\$304,941,443	\$304,941,443	\$304,941,443
Amortization Requirement	39,491,320	24,469,294	19,836,868	17,771,438
Covered Payroll	657,609,766	657,609,766	657,609,766	657,609,766
Amortization Rate Requirement	<u>6.005%</u>	<u>3.721%</u>	<u>3.017%</u>	<u>2.702%</u>

ACTUARIAL BALANCE

Employer Contribution Rate Set by Law*	<u>6.944%</u>	<u>6.944%</u>	<u>6.944%</u>	<u>6.944%</u>
Amortization Rate Requirement	6.005%	3.721%	3.017%	2.702%
Normal Cost Rate Requirement	3.988	3.988	3.988	3.988
Allowance for Expenses	<u>0.148</u>	<u>0.148</u>	<u>0.148</u>	<u>0.148</u>
Total Requirement	<u>10.141%</u>	<u>7.857%</u>	<u>7.153%</u>	<u>6.838%</u>
Excess (Deficit) of Employer Contribution Rate Set by Law and Total Requirement	<u>(3.197%)</u>	<u>(0.913%)</u>	<u>(0.209%)</u>	<u>0.106%</u>

\* Weighted by Covered Payroll

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONGeneral Fund

STATEMENT OF REVENUE, EXPENDITURES,  
CHANGES IN RESERVES AND EXPERIENCE GAIN (LOSS)  
 (Year Ending June 30, 1976)

Revenue:

Employer Contributions	\$42,770,819.87	
Member Contributions	31,666,986.45	
Investment Income	19,794,625.73	
Other Income	1,612.19	
Minnesota Adjustable Fixed Benefit Fund Income	( 717,648.17)	
Adjustment for Prior Year Entries	<u>( 2,325.94)</u>	
Total Revenue		\$93,514,070.13

Expenditure:

Benefits	\$24,987,896.57	
Refund of Contributions	5,580,003.93	
Administrative Expense	972,831.61	
Transfer to Police and Fire Fund	<u>( 811.24)</u>	
Total Expenditures		<u>31,539,920.87</u>
Increase in Assets (1976)		<u>\$61,974,149.26</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATION  
RECONCILIATION OF CHANGE IN ACTUARIAL RESERVES

General Fund

ALLOCATION OF CHANGE IN ACTUARIAL RESERVES

	<u>Increase</u>	<u>Decrease</u>	
Increase in Assets			\$ 61,974,149
Amortization Payment		\$ 7,167,882	
Excess Interest (0.72% x Average Invested Assets)		2,435,445	
Estimated Excess (Deficit) in Rate	\$ 3,918,501		
Contribution Requirement Applied to Larger Payroll		3,466,905	
Other Income		3,438,826	
Increases in Compensation	42,067,128		
Totals	<u>\$45,985,629</u>	<u>\$16,509,058</u>	
Expected Decrease (Increase) in Unfunded			<u>(29,476,571)</u>
Net Change in Reserves Experience Variation (Gain) Loss			\$ 91,450,720 <u>( 530,726)</u>
Total			<u>\$ 90,919,994</u>
1976 Actuarial Reserve			\$816,093,861
1975 Actuarial Reserve			<u>725,173,867</u>
Increase (Decrease)			<u>\$ 90,919,994</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONRECONCILIATION OF ACTIVE MEMBERS  
(June 30, 1976)General Fund

As of July 1, 1975	81,140
New Entrants	14,908
Reinstated	3,076
Transfer	<u>-</u>
Total	<u>99,124</u>
<u>Separations:</u>	
a. With Refund of Contributions	
(i) Death	206
(ii) Withdrawal	13,828
b. With Deferred Annuity	109
c. With Disability Annuity	119
d. With Normal Retirement Annuity	882
e. With Survivor Annuity	169
f. With Disability Survivor Annuity	<u>13</u>
Total	<u>15,326</u>
Active as of July 1, 1976	<u><u>83,798</u></u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATION

EXHIBIT 13

RECONCILIATION OF ANNUITANTS

General Fund

Normal Retirement Annuitants

As of July 1, 1975		7,874
Additions During Year		991
Deletions During Year		<u>- 418</u>
<u>Total as of July 1, 1976</u>		<u>8,447</u>
Annual Annuity - July 1, 1975	\$	<u>17,349,659</u>
- July 1, 1976	\$	<u>19,306,311</u>

Disability Annuitants

As of July 1, 1975		396
Additions During Year		119
Deletions During Year		<u>- 57</u>
<u>Total as of July 1, 1976</u>		<u>458</u>
Annual Annuity - July 1, 1975	\$	<u>931,775</u>
- July 1, 1976	\$	<u>1,050,254</u>

Survivor Annuitants

(a) Spouse Only as of July 1, 1975		2,494
Optional Survivors as of July 1, 1975		76
Additional Spouse Only During Year		201
Additional Optional Survivors During Year		16
Deletions During Year		<u>- 132</u>
<u>Total as of July 1, 1976</u>		<u>2,655</u>
Annual Annuity - July 1, 1975	\$	<u>2,767,422</u>
- July 1, 1976	\$	<u>2,926,255</u>

(b) Survivor with Children

As of July 1, 1975		579
Additions During Year		27
Deletions During Year		<u>- 5</u>

Total as of July 1, 1976

		<u>601</u>
Annual Annuity - July 1, 1975	\$	<u>668,910</u>
- July 1, 1976	\$	<u>701,166</u>

(c) Children

As of July 1, 1975		619
Additions During Year		67
Deletions During Year		<u>- 212</u>

Total as of July 1, 1976

		<u>474</u>
Annual Annuity - July 1, 1975	\$	<u>412,865</u>
- July 1, 1976	\$	<u>386,710</u>

Deferred Vested Members

As of July 1, 1975		911
Additions During Year		109
Deletions During Year		<u>- 26</u>

Total as of July 1, 1976

		<u>994</u>
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PUBLIC EMPLOYEES RETIREMENT ASSOCIATION

EXHIBIT 14

Police and Fire Fund

Accounting Balance Sheet

June 30, 1976

ASSETS

Cash on Deposit		\$	32,968.84
Accounts Receivable:			
Employer contributions	\$	2,240.22	
Purchase of prior service credit		1,801.10	
From General Fund		12,134.06	
From State General Revenue Fund			
(supplemental payments)		24.24	
Interest on late employer contributions			
and delinquent payrolls		958.92	
Accrued interest on investments		590,125.30	
Accrued dividends		90,222.96	
			<u>697,506.80</u>
Total Current Assets		\$	730,475.64
Investment:			
Bonds - at amortized cost -			
U.S. Government	\$	2,304,000.00	
Corporate		22,252,513.43	
Canadian Government Insured		5,250,000.00	
Stock - Common - at cost		25,613,185.77	
			<u>55,419,699.20</u>
Minnesota Adjustable Fixed Benefit Fund			10,563,024.78
Deferred yield adjustment			404,894.68
Prepaid interest			3,112.11
			<u>11,371,031.57</u>
Total Assets		\$	<u>67,121,206.41</u>

CURRENT LIABILITIES AND RESERVES

Liabilities:			
Accounts payable to Regular Fund		\$	56,645.30
Other accounts payable			14,362.03
Donations suspense			22,199.65
			<u>93,206.98</u>
Total Liabilities		\$	93,206.98
Reserves:			
Members accumulated contributions	\$	16,907,640.68	
Benefits reserve		39,557,333.97	
Reserve for participation in Minnesota			
Adjustable Fixed Benefit Fund		10,563,024.78	
			<u>67,027,999.43</u>
Total Liabilities and Reserves		\$	<u>67,121,206.41</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONPolice and Fire FundSOURCES AND USES OF FUNDS

July 1, 1975 - June 30, 1976

<u>Sources</u>		<u>Uses</u>	
<u>Employee Contributions</u>	\$ 3,724,733.03	<u>Refunds</u>	
<u>Employer Contributions</u>	5,584,018.07	Employee Contributions	\$ 340,366.53
<u>Police and Fire State Aid</u>	647,833.17	Employer Contributions	21,785.09
<u>Investment Income</u>	2,841,389.13	<u>Payments to Minnesota</u>	
<u>Investment Sales and Redemptions</u>		<u>Adjustable Fixed Benefit Fund</u>	893,832.75
Bonds	103,093,175.05	<u>Annuities Paid</u>	
Stocks	1,719,838.07	Retirement	1,303,706.48
<u>Cancelled Warrants</u>	5,355.77	Survivor	285,345.19
<u>Interest on Omitted Deductions,</u>		Disability	47,592.98
<u>Back Payments and Refunds Repaid</u>	16,129.95	<u>Investment Purchases</u>	
<u>Difference in Cash Accounts</u>		Bonds	109,653,670.19
<u>July 1, 1975 and July 1, 1976</u>	40,804.96	Stocks	5,105,414.34
	\$117,673,277.20	<u>Interest Paid on Refunds</u>	9,624.15
Cash Balance, June 30, 1976	32,968.84	<u>Transfers to Regular Fund</u>	11,934.50
	<u>\$117,706,246.04</u>		<u>\$117,673,277.20</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONPolice and Fire FundAccounting Statement of Income and Expense

- July 1, 1975 to June 30, 1976 -

INCOME

Employer contributions - 1975-1976		\$ 5,568,004.84
Member contributions		3,723,619.66
Special income from Police State Aid		647,833.17
Transfers from Regular Fund:		
Member contributions (active)	\$ 3,506.92	
Member contributions (deferred)	4,288.53	
Employer contributions	4,337.11	
Interest on contributions	<u>1.50</u>	12,134.06
Realized income of the Minnesota		
Adjustable Fixed Benefit Fund		589,324.63
Statutory valuation adjustment of the		
Minnesota Adjustable Fixed Benefit Fund		(642,070.96)
Investment earnings		2,943,031.98
Gain on sale of stock		9,953.40
Interest on refunds repaid		10,768.68
Interest on delinquent contributions and		
omitted contributions		<u>4,349.18</u>
 Total Income		 \$12,866,948.64

EXPENSE

Retirement annuities paid from the		
Minnesota Adjustable Fixed Benefit Fund		\$1,185,138.84
Survivor Benefits Paid:		
Old law survivors	\$ 42,005.71	
With children	125,297.17	
Without children	<u>82,848.58</u>	250,151.46
Disability benefits paid		43,742.62
Disability survivors without children paid		975.00
One-time payment to annuitants and survivors,		
per Chapter 306, Section 29, Laws 1975		33,800.00
Refunds to Active Members:		
Due to withdrawal	\$ 327,199.51	
Due to death	<u>3,476.78</u>	330,676.29
Refunds of employer contributions		20,390.86
Refunds to Deferred Members:		
Due to withdrawal	\$ 7,854.77	
Due to death	<u>835.18</u>	8,689.95
Transfers to Regular Fund:		
Member contributions	\$ 8,968.52	
Employer contributions	3,875.66	
Interest on contributions	<u>101.12</u>	12,945.30

PUBLIC EMPLOYEES RETIREMENT ASSOCIATION

EXHIBIT 16  
(Continued)

Police and Fire Fund  
Income and Expense (Continued)

EXPENSE (Continued)

Adjustment for prior year entries	14.39	
Interest paid on refunds	9,624.15	
General administrative expense	<u>43,012.96</u>	<u>1,939,161.82</u>
Excess of Income over Expense for the Year Ended June 30, 1976		<u>\$10,927,786.82</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONPolice and Fire FundReconciliation of Asset Balances

- June 30, 1976 -

Asset Balance, July 1, 1975		\$56,100,212.61
Add:		
Employer contributions	\$5,568,004.84	
Employee contributions	3,723,619.66	
Special income - Police State Aid	647,833.17	
Employee and employer contributions transferred from Regular Fund	12,134.06	
Realized income of the Minnesota Adjustable Fixed Benefit Fund	589,324.63	
Statutory valuation adjustment of the Minnesota Adjustable Fixed Benefit Fund	(642,070.96)	
Investment earnings	2,943,031.98	
Gain on sales of stocks	9,953.40	
Interest on delinquent contributions, omitted deductions and refunds repaid	<u>15,117.86</u>	
Total Additions		<u>12,866,948.64</u>
		\$68,967,161.25
Deduct:		
Benefits Paid -		
Retirement	\$1,185,138.84	
Survivor	251,126.46	
Disability	43,742.62	
One-time payment to annuitants and survivors per Chapter 306, Sec. 29, Laws 1975	<u>33,800.00</u>	\$1,513,807.92
Refunds		359,757.10
Transfers to Regular Fund		12,945.30
Adjustments for prior years		14.39
Interest paid on refunds		9,624.15
General administrative expense		<u>43,012.96</u>
Total Deductions		<u>1,939,161.82</u>
		\$67,027,999.43
Current Liabilities and Accounts Payable		<u>93,206.98</u>
Asset Balance, June 30, 1976		<u>\$67,121,206.41</u>

Public Employees Retirement Association

Police and Fire

ACTUARIAL ASSUMPTIONS

The assumptions can be summarized as follows:

Interest:	5%
Mortality:	1965 Group Annuity
Retirement Age:	60
Disability:	See Following Table
Turnover:	See Following Table
Salary Scale:	3 1/2% per year

A detailed statement of the mortality rates, disability rates, turnover factors, and salary scale is set out in the following Table 1 through 4.

Public Employees Retirement Association

Police and Fire Fund

All Employees

MORTALITY RATES  
(Per 1,000 Employees)

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
20	.517	45	3.002
21	.537	46	3.409
22	.558	47	3.856
23	.581	48	4.344
24	.607	49	4.869
25	.636	50	5.429
26	.667	51	6.027
27	.703	52	6.656
28	.742	53	7.321
29	.784	54	8.019
30	.831	55	8.751
31	.884	56	9.514
32	.941	57	10.312
33	1.005	58	11.154
34	1.074	59	12.057
35	1.152	60	13.043
36	1.237		
37	1.331		
38	1.435		
39	1.550		
40	1.677		
41	1.838		
42	2.054		
43	2.322		
44	2.639		

Public Employees Retirement AssociationPolice and Fire FundAll EmployeesDISABILITY RATES  
(Per 1,000 Employees)

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
20	1.70	45	10.40
21	1.75	46	11.60
22	1.80	47	12.95
23	1.86	48	14.50
24	1.92	49	16.10
25	1.98	50	17.70
26	2.05	51	19.60
27	2.12	52	21.60
28	2.19	53	23.70
29	2.27	54	25.95
30	2.35	55	28.25
31	2.50	56	30.65
32	2.70	57	33.25
33	2.95	58	36.05
34	3.20	59	38.85
35	3.50		
36	3.90		
37	4.30		
38	4.75		
39	5.25		
40	5.90		
41	6.60		
42	7.40		
43	8.30		
44	9.25		

Public Employees Retirement AssociationPolice and Fire FundAll EmployeesSEPARATION RATES  
(Per 1,000 Employees)

<u>Age</u>	<u>Separation</u>	<u>Age</u>	<u>Separation</u>
20	70.0	40	24.5
21	70.0	41	21.3
22	70.0	42	18.5
23	69.9	43	16.0
24	69.8	44	13.7
25	69.7	45	11.8
26	69.4	46	10.2
27	68.9	47	8.7
28	68.0	48	7.3
29	67.0	49	6.1
30	65.8	50	5.0
31	64.3	51	3.9
32	62.4	52	2.9
33	59.8	53	2.2
34	56.1	54	1.5
35	51.1	55	1.1
36	45.4	56	.7
37	39.5	57	.5
38	33.6	58	.3
39	28.7	59	.1

Public Employees Retirement AssociationPolice and Fire FundAll EmployeesEARNINGS PROGRESSION

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
20	.2526	45	.5967
21	.2614	46	.6176
22	.2705	47	.6392
23	.2800	48	.6616
24	.2898	49	.6848
25	.2999	50	.7088
26	.3104	51	.7336
27	.3213	52	.7593
28	.3325	53	.7859
29	.3441	54	.8134
30	.3561	55	.8419
31	.3686	56	.8714
32	.3815	57	.9019
33	.3949	58	.9335
34	.4087	59	.9661
35	.4230	60	1.0000
36	.4378		
37	.4531		
38	.4690		
39	.4854		
40	.5024		
41	.5200		
42	.5382		
43	.5570		
44	.5765		

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONFINANCIAL BALANCE SHEET  
(Year Commencing July 1, 1976)Police and Fire FundRESERVES

## Entry Age Normal Reserves

Retirement	\$111,242,053		
Vesting	13,060,482		
Disability	26,044,987		
Survivors	7,149,466		
Refund	<u>4,208,439</u>		
	\$161,705,427		
Less Value of Benefits to be Earned in the Future	89,725,620	\$71,979,807	
Vested Members			885,721
Retired Members			
Retirements Payable from Minnesota Adjustable Fixed Benefit Fund	\$ 10,563,025		
Disability	560,690		
Survivors	2,861,152		
Reserve for Future Old Law Survivors	496,479		
Less Receivable from Minnesota Adjustable Fixed Benefit Fund	<u>- 190,906</u>	<u>\$14,290,440</u>	<u>\$87,155,968</u>
Unfunded Obligation			<u>20,127,969</u>
Funded Obligation			\$67,027,999

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONACTUARIAL REQUIREMENTS  
(July 1, 1976)Police and Fire FundAMORTIZATION RATE REQUIREMENT

Present Value of Benefits (For Both Past and Future Service)		\$176,881,588	
Obligation for Service Rendered to Date	\$ 87,155,968		
Net Assets	67,027,999		
Accrued Unfunded Obligation	20,127,969		
Funding Ratio			77%
Amortization (21-Year) Requirement	1,569,903		
Covered Payroll	46,848,679		
Amortization (21-Year) Rate Requirement			3.351%

ENTRY AGE NORMAL RATE REQUIREMENT

Value of Benefits to be Earned in the Future	\$ 89,725,620		
Present Value of Future Payroll	548,304,900		
Normal Cost Rate Requirement	16.364%		
Employee Contribution Rate	<u>8.000</u>		
Employer Normal Cost Rate Requirement			<u>8.364%</u>

ACTUARIAL BALANCE

Employer Contribution Rate Set by Law			12.000%
Amortization (21-Year) Rate Requirement	3.351%		
Normal Cost Rate Requirement	8.364		
Allowance for Expenses	<u>0.092</u>		
Total Requirement			11.807%
Excess (Deficit) of Employer Contribution Rate Set by Law and Total Requirement			<u>0.193%</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONACTUARIAL REQUIREMENTS  
(July 1, 1976)Police and Fire FundAMORTIZATION RATE REQUIREMENT

	PERIOD			
	<u>10-Year</u>	<u>20-Year</u>	<u>30-Year</u>	<u>40-Year</u>
Accrued Unfunded Obligation	\$20,127,969	\$20,127,969	\$20,127,969	\$20,127,969
Amortization Requirement	2,606,665	1,615,121	1,309,353	1,173,022
Covered Payroll	46,848,679	46,848,679	46,848,679	46,848,679
Amortization Rate Requirement	<u>5.564%</u>	<u>3.448%</u>	<u>2.795%</u>	<u>2.504%</u>

ACTUARIAL BALANCE

Employer Contribution Rate Set by Law	<u>12.000%</u>	<u>12.000%</u>	<u>12.000%</u>	<u>12.000%</u>
Amortization Rate Requirement	5.564%	3.448%	2.795%	2.504%
Normal Cost Rate Requirement	8.364	8.364	8.364	8.364
Allowance for Expenses	<u>0.092</u>	<u>0.092</u>	<u>0.092</u>	<u>0.092</u>
Total Requirement	<u>14.020%</u>	<u>11.904%</u>	<u>11.251%</u>	<u>10.960%</u>
Excess (Deficit) of Employer Contribution Rate Set by Law and Total Requirement	<u>(2.020%)</u>	<u>0.096%</u>	<u>0.749%</u>	<u>1.040%</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONPolice and Fire Fund

STATEMENT OF REVENUE, EXPENDITURES,  
CHANGES IN RESERVES AND EXPERIENCE GAIN (LOSS)  
 (Year Ending June 30, 1976)

Revenue:

Employer Contributions	\$5,568,004.84	
Member Contributions	3,723,619.66	
Special Income	647,833.17	
Investment Income	2,968,103.24	
Minnesota Adjustable Fixed Benefit Fund Income	<u>( 52,746.33)</u>	
Total Revenue		\$12,854,814.58

Expenditure:

Benefits	\$1,513,807.92	
Refund of Contributions	369,381.25	
Administrative Expense	43,012.96	
Transfer to Regular Fund	<u>811.24</u>	
Total Expenditures		<u>\$ 1,927,013.37</u>

Increase in Assets (1976)		<u><u>\$10,927,786.82</u></u>
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PUBLIC EMPLOYEES RETIREMENT ASSOCIATION  
RECONCILIATION OF CHANGE IN ACTUARIAL RESERVES

Police and Fire Fund

ALLOCATION OF CHANGE IN ACTUARIAL RESERVES

	<u>Increase</u>	<u>Decrease</u>	
Increase in Assets			\$10,927,786
Revised Assumptions*	\$6,657,841		
Amortization Payment		\$ 299,726	
Excess Interest (0.87% x Average Invested Assets)		441,571	
Estimated Excess in Rate		981,623	
Contribution Requirement Applied to Larger Payroll		599,880	
Other Income		647,833	
Increases in Compensation	<u>4,695,857</u>		
Totals	<u>\$11,353,698</u>	<u>\$2,970,633</u>	
Expected Decrease (Increase) in Unfunded			<u>(8,383,065)</u>
Net Change in Reserves			\$19,310,851
Experience Variation (Gain) Loss			<u>203,885</u>
Total			<u>\$19,514,736</u>
1976 Actuarial Reserve			\$87,155,968
1975 Actuarial Reserve			<u>67,641,232</u>
Increase (Decrease)			<u>\$19,541,736</u>

\* Retirement age lowered from age 62 to age 60 based on 1975 experience study.

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONRECONCILIATION OF ACTIVE MEMBERSPolice and Fire Fund

As of July 1, 1975	3,690
New Entrants	406
Reinstated	<u>103</u>
<u>Total</u>	<u>4,199</u>
 <u>Separations:</u>	
a. With Refund of Contributions	
(i) Death	8
(ii) Withdrawal	337
b. With Deferred Annuity	24
c. With Disability Annuity	5
d. With Normal Retirement Annuity	20
e. With Survivor Annuity	<u>5</u>
<u>Total</u>	<u>399</u>
Active as of July 1, 1976	<u>3,800</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONRECONCILIATION OF ANNUITANTSPolice and Fire FundNormal Retirement Annuitants

As of July 1, 1975		331
Additions During Year		45
Deletions During Year		<u>14</u>
<u>Total as of July 1, 1976</u>		<u>362</u>
Annual Annuity - July 1, 1975	\$	<u>1,085,872</u>
- July 1, 1976	\$	<u>1,217,948</u>

Disability Annuitants

As of July 1, 1975		12
Additions During Year		5
Deletions During Year		<u>2</u>
<u>Total as of July 1, 1976</u>		<u>15</u>
Annual Annuity - July 1, 1975	\$	<u>44,564</u>
- July 1, 1976	\$	<u>56,644</u>

Survivor Annuitants

(a) Spouse Only as of July 1, 1975		75
Optional Survivors as of July 1, 1975		4
Additional Spouse Only During Year		7
Additional Optional Survivors During Year		-
Deletions During Year		<u>5</u>
<u>Total as of July 1, 1976</u>		<u>81</u>
Annual Annuity - July 1, 1975	\$	<u>90,606</u>
- July 1, 1976	\$	<u>116,383</u>

## (b) Survivor with Children

As of July 1, 1975		63
Additions During Year		1
Deletions During Year		<u>2</u>

Total as of July 1, 1976

<u>Annual Annuity - July 1, 1975</u>	\$	<u>98,064</u>
<u>- July 1, 1976</u>	\$	<u>98,551</u>

## (c) Children

As of July 1, 1975		99
Additions During Year		4
Deletions During Year		<u>8</u>

Total as of July 1, 1976

<u>Annual Annuity - July 1, 1975</u>	\$	<u>67,675</u>
<u>- July 1, 1976</u>	\$	<u>65,848</u>

Deferred Annuitants

As of July 1, 1975		154
Additions During Year		45
Deletions During Year		<u>16</u>

Total as of July 1, 1976183

Police and Fire Fund

SUPPORTING EXHIBITS

Exhibit 26	Retired Prior to July 1, 1973	43
Exhibit 27	Retired Under Law in Force July 1, 1973 and Subsequent	44
Exhibit 28	Survivor Annuities	45
Exhibit 29	Considered Earnings - Male	46
Exhibit 30	Considered Earnings - Female	47
Exhibit 31	Summary of Plan	48 - 51

Public Employees Retirement AssociationPolice and Fire FundRetired Prior to July 1, 1973Payable From Adjustable Fixed Benefit Fund

<u>Age</u>	<u>Male</u>		<u>Female</u>	
	<u>Number</u>	<u>Monthly Annuity</u>	<u>Number</u>	<u>Monthly Annuity</u>
58	1	\$ 250.00	-	\$ -
59	4	557.24	-	-
60	3	1,124.22	-	-
61	6	1,422.50	-	-
62	3	1,237.73	1	128.10
63	7	1,437.69	-	-
64	7	1,324.43	-	-
65	3	590.82	-	-
66	8	2,221.60	-	-
67	10	2,575.59	-	-
68	10	2,594.75	1	360.09
69	17	3,973.86	-	-
70	17	4,707.12	1	211.16
71	13	3,622.20	1	88.21
72	11	2,091.08	1	169.20
73	13	2,838.50	-	-
74	16	3,543.05	-	-
75	13	3,490.11	1	222.27
76	11	2,184.14	-	-
77	10	2,489.42	1	60.47
78	5	1,377.57	1	230.94
79	7	1,411.84	-	-
80	7	1,693.31	-	-
81	4	600.63	-	-
82	4	627.01	-	-
83	2	186.06	-	-
84	1	271.02	-	-
85	1	148.31	-	-
87	1	213.12	-	-
<u>Totals</u>	<u>215</u>	<u>\$ 50,804.92</u>	<u>8</u>	<u>\$ 1,470.44</u>

Public Employees Retirement AssociationPolice and Fire FundRetired Under Law in Force July 1, 1973 and SubsequentPayable From Adjustable Fixed Benefit Fund

<u>Age</u>	<u>Male</u>		<u>Female</u>	
	<u>Number</u>	<u>Monthly Annuity</u>	<u>Number</u>	<u>Monthly Annuity</u>
55	2	\$ 680.22	-	\$ -
56	7	2,493.33	-	-
57	7	2,815.11	-	-
58	5	2,775.21	-	-
59	7	2,989.79	-	-
60	16	5,347.73	-	-
61	11	3,595.02	-	-
62	9	3,918.33	-	-
63	10	4,062.66	1	260.16
64	8	3,225.24	-	-
65	13	4,060.79	-	-
66	13	4,191.24	1	178.57
67	9	1,713.66	1	567.03
68	10	3,777.30	-	-
69	2	1,271.32	-	-
71	4	432.92	-	-
72	1	471.87	-	-
74	1	109.97	-	-
79	1	282.84	-	-
<u>Totals</u>	<u>136</u>	<u>\$ 48,214.55</u>	<u>3</u>	<u>\$ 1,005.76</u>

Survivor Annuitants

<u>Age</u>	<u>Male</u>		<u>Female</u>	
	<u>Number</u>	<u>Monthly Annuity</u>	<u>Number</u>	<u>Monthly Annuity</u>
53	-	\$ -	1	\$ 306.21
57	-	-	1	249.82
59	-	-	2	275.00
60	-	-	1	230.46
63	-	-	1	246.19
67	-	-	1	66.83
71	1	150.06	1	29.78
80	-	-	1	36.04
<u>Totals</u>	<u>1</u>	<u>\$ 150.06</u>	<u>9</u>	<u>\$ 1,440.33</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATION

Police and Fire Fund

Survivor Annuities

<u>Age</u>	<u>Female</u>		<u>Age</u>	<u>Female</u>	
	<u>Number</u>	<u>Monthly Annuity</u>		<u>Number</u>	<u>Monthly Annuity</u>
25	1	\$ 243.35	63	4	\$ 325.00
29	1	203.66	64	2	206.25
33	1	300.00	65	4	399.83
38	3	220.62	66	3	257.36
41	2	381.25	67	6	607.32
43	4	251.77	68	7	943.31
44	2	431.78	69	2	162.50
45	1	81.25	70	2	197.60
46	1	81.25	71	3	366.64
47	2	517.00	72	6	614.22
48	2	392.55	73	2	96.79
49	4	532.45	74	2	250.00
50	3	554.28	75	1	63.69
51	4	799.18	76	3	303.18
52	2	162.50	77	7	677.94
53	3	321.35	78	1	40.10
55	1	304.58	79	1	125.00
56	4	870.76	80	4	423.99
57	2	381.25	81	2	187.56
58	8	1,586.79	85	1	94.98
59	2	162.50	86	1	81.25
60	4	670.65	88	1	95.18
61	1	25.34			
62	4	325.00			
			<u>TOTALS</u>	<u>133</u>	<u>\$16,320.80</u>

Children

<u>Number</u>	<u>Monthly Annuity</u>
<u>95</u>	<u>\$5,487.32</u>

Disability

<u>Age</u>	<u>Number</u>	<u>Monthly Annuity</u>
32	1	\$ 237.48
39	1	186.76
43	1	582.67
44	3	864.51
46	1	244.96
47	1	179.32
49	2	539.31
50	3	1,157.87
54	1	534.86
55	1	192.58
<u>TOTALS</u>	<u>15</u>	<u>\$4,720.32</u>

## PUBLIC EMPLOYEES RETIREMENT ASSOCIATION

## Police and Fire Fund

## CONSIDERED EARNINGS

## Active Male Employees

(Age and Service as of July 1, 1976)

Age	YEARS OF SERVICE							
	Under 1		1 to 2		2 to 5		5 to 10	
	No.	Earnings	No.	Earnings	No.	Earnings	No.	Earnings
Under 25	112	\$ 923,551	148	\$1,057,500	70	\$ 729,863	1	\$ 9,348
25 to 30	103	1,026,428	162	1,565,674	404	4,987,678	139	1,965,712
30 to 35	54	502,995	73	681,978	181	2,222,078	316	4,658,587
35 to 40	26	299,295	48	274,523	96	1,022,542	234	3,421,802
40 to 45	22	197,896	28	282,141	52	522,144	119	1,643,262
45 to 50	13	104,067	26	202,117	35	307,617	77	1,051,890
50 to 55	6	45,088	9	80,454	11	95,246	53	669,326
55 to 60	3	16,992	2	12,897	10	97,972	40	486,746
60 to 65	-	-	2	11,365	3	24,003	21	227,502
65 & Up	-	-	3	23,221	5	65,260	4	40,543
<u>Total</u>	<u>339</u>	<u>\$3,116,312</u>	<u>501</u>	<u>\$4,191,870</u>	<u>867</u>	<u>\$10,074,403</u>	<u>1004</u>	<u>\$14,174,718</u>

Age	YEARS OF SERVICE							
	10 to 15		15 to 20		20 to 25		25 to 30	
	No.	Earnings	No.	Earnings	No.	Earnings	No.	Earnings
Under 25	-	\$ -	-	\$ -	-	\$ -	-	\$ -
25 to 30	2	28,534	-	-	-	-	-	-
30 to 35	44	620,140	-	-	-	-	-	-
35 to 40	147	2,188,902	17	275,142	-	-	-	-
40 to 45	102	1,490,801	51	852,220	19	279,217	-	-
45 to 50	55	735,248	59	1,010,215	58	828,262	3	57,917
50 to 55	65	828,431	48	774,281	58	762,077	16	265,701
55 to 60	49	594,405	21	290,186	26	351,334	19	316,549
60 to 65	25	291,358	16	238,100	26	328,062	10	163,622
65 & Up	8	92,970	7	95,772	1	14,470	-	-
<u>Total</u>	<u>497</u>	<u>\$6,870,789</u>	<u>219</u>	<u>\$3,535,916</u>	<u>188</u>	<u>\$ 2,563,422</u>	<u>48</u>	<u>\$ 803,789</u>

Age	YEARS OF SERVICE							
	30 to 35		35 to 40		40 & Up		ALL	
	No.	Earnings	No.	Earnings	No.	Earnings	No.	Earnings
Under 25	-	\$ -	-	\$ -	-	\$ -	331	\$ 2,720,262
25 to 30	-	-	-	-	-	-	810	9,574,026
30 to 35	-	-	-	-	-	-	668	8,685,778
35 to 40	-	-	-	-	-	-	568	7,482,206
40 to 45	-	-	-	-	-	-	393	5,267,681
45 to 50	1	17,819	-	-	-	-	327	4,315,152
50 to 55	3	46,240	-	-	-	-	269	3,566,844
55 to 60	2	37,599	1	22,397	-	-	173	2,227,077
60 to 65	3	53,541	1	13,570	2	28,272	109	1,379,395
65 & Up	-	-	1	32,456	-	-	29	364,692
<u>Total</u>	<u>9</u>	<u>\$ 155,199</u>	<u>3</u>	<u>\$ 68,423</u>	<u>2</u>	<u>\$ 28,272</u>	<u>3677</u>	<u>\$45,583,113</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONPolice and Fire FundCONSIDERED EARNINGSActive Female Employees  
(Age and Service as of July 1, 1976)

Age	YEARS OF SERVICE							
	Under 1		1 to 2		2 to 5		5 to 10	
	No.	Earnings	No.	Earnings	No.	Earnings	No.	Earnings
Under 25	5	\$46,435	7	\$ 66,737	-	\$ -	-	\$ -
25 to 30	8	70,069	7	66,039	8	83,213	2	23,151
30 to 35	2	13,472	4	33,141	4	37,379	7	81,195
35 to 40	4	24,722	4	39,003	2	25,000	4	40,205
40 to 45	-	-	2	16,230	5	47,137	5	61,540
45 to 50	-	-	2	20,218	3	30,436	5	65,118
50 to 55	-	-	-	-	4	45,008	5	54,796
55 to 60	-	-	-	-	-	-	5	45,940
60 to 65	-	-	-	-	-	-	2	20,729
65 & Up	-	-	-	-	-	-	-	-
<u>Total</u>	<u>19</u>	<u>\$154,698</u>	<u>26</u>	<u>\$241,368</u>	<u>26</u>	<u>\$268,173</u>	<u>35</u>	<u>\$ 392,714</u>

Age	YEARS OF SERVICE							
	10 to 15		15 to 20		20 to 25		25 to 30	
	No.	Earnings	No.	Earnings	No.	Earnings	No.	Earnings
Under 25	-	\$ -	-	\$ -	-	\$ -	-	\$ -
25 to 30	-	-	-	-	-	-	-	-
30 to 35	-	-	-	-	-	-	-	-
35 to 40	-	-	-	-	-	-	-	-
40 to 45	-	-	-	-	-	-	-	-
45 to 50	1	13,876	1	10,341	1	11,952	-	-
50 to 55	2	25,392	2	20,823	-	-	-	-
55 to 60	3	41,417	1	7,785	-	-	-	-
60 to 65	3	43,865	-	-	1	8,570	-	-
65 & Up	1	7,317	-	-	-	-	-	-
<u>Total</u>	<u>10</u>	<u>\$131,867</u>	<u>4</u>	<u>\$ 38,949</u>	<u>2</u>	<u>\$ 20,522</u>	<u>-</u>	<u>\$ -</u>

Age	YEARS OF SERVICE							
	30 to 35		35 to 40		40 & Up		ALL	
	No.	Earnings	No.	Earnings	No.	Earnings	No.	Earnings
Under 25	-	\$ -	-	\$ -	-	\$ -	12	\$ 113,172
25 to 30	-	-	-	-	-	-	25	242,512
30 to 35	-	-	-	-	-	-	17	165,187
35 to 40	-	-	-	-	-	-	14	128,930
40 to 45	-	-	-	-	-	-	12	124,907
45 to 50	-	-	-	-	-	-	13	151,941
50 to 55	-	-	-	-	-	-	13	146,019
55 to 60	-	-	-	-	-	-	9	95,142
60 to 65	-	-	-	-	-	-	6	73,164
65 & Up	-	-	-	-	1	17,275	2	24,592
<u>Total</u>	<u>-</u>	<u>\$ -</u>	<u>-</u>	<u>\$ -</u>	<u>1</u>	<u>\$ 17,275</u>	<u>123</u>	<u>\$1,265,566</u>

Based on census data from the Association as of June 30. Corrections are made during the year as received from the reporting units.

PUBLIC EMPLOYEES POLICE AND FIRE FUND

SUMMARY OF PLAN

1. Name

Public Employees Police and Fire Fund.

2. Type of Plan

Self-insured, managed by a 13-member Board of Trustees, ten elected and three appointed by three employer groups.

3. Employer Included

Any county, city, borough, town within the state.

4. Employees Included

All full time, and certain part time, police officers and fire fighters, who are not contributing to any other local retirement plan.

5. Allowable Service

All periods of public service during which salary deductions were made or for which payments in lieu of salary deductions were deposited, including authorized leaves of absence, sick leaves, military leaves and layoffs.

6. Considered Salary

Salary means the periodical total compensation of any public employee before deductions for deferred compensation or supplemental retirement plans, and also means wages and includes net income from fees.

7. Employee Contributions

After July 1, 1973, 8% of considered salary.

8. Employer Contributions

An amount equal to 12% of considered salary.

9. Normal Retirement Annuity

After attainment of age 55 and completion of at least 10 years of allowable service.

"Average salary" means an amount equivalent to the highest salary upon which contributions were paid for any five successive years of allowable service.

Annuity equal to:

- (a) 2 1/2% of "Average Salary" for each of the first 20 years of allowable service, plus
- (b) 2% of "Average Salary" for each year of service over 20 years.

10. Late Retirement Annuity

Annual Annuity determined as for Normal Retirement, considering allowable service and salary to actual retirement.

11. Proportionate Annuity

At age 65 or earlier under a mandatory retirement statute or uniformly applied compulsory retirement policy and completion of at least three years but less than 10 years of allowable service.

Annual Annuity determined as for Normal Retirement, considering allowable service and salary to actual retirement.

12. Disability Benefit

In event of disability, which renders member unable to perform the duties of a police officer or fire fighter, after not less than five years of allowable service.

Annual Benefit payable to age 55 determined as for Normal Retirement, considering allowable service and salary to date of disablement, except if service is under 10 years, the benefit shall be the same as though the member had 10 years service.

In the event of disability incurred in line of duty regardless of years of allowable service, the benefit shall be equal to 50% of "Average Salary" plus 2% of such salary for each year of allowable service in excess of 20 years.

If disability continues to age 55, the disability benefit shall terminate and the person shall be deemed to be on retirement status with an annuity in the same amount that he was previously receiving, or he may select an optional annuity.

13. Survivor or Death Benefit

In event of death of an active member, or in event of death of a disabilitant prior to age 55.

Annual Survivor Benefit to dependent spouse, of 30% of average salary during the last six months of allowable service, plus for each dependent child, 10% of such average salary. Maximum family benefit equal to \$450 per month. Minimum family benefit equal to 30% of such average salary, subject to the maximum limitation.

Upon the death of an annuitant who retired under the "savings clause" the surviving spouse, if otherwise eligible, is entitled to a monthly survivor benefit for life or until remarriage, equal to one-half of the original annuity paid plus 25%; maximum \$125 monthly.

In the event of death of a retired annuitant and no survivor benefits are payable, the excess (if any) of his accumulated contributions not paid out in the way of annuities shall be paid to his designated beneficiary, without interest.

In case of death of a member who has no eligible surviving dependents, his accumulated contributions shall be paid to his designated beneficiary with interest thereon at 3 1/2% per annum compounded annually.

#### 14. Separation Benefit

In event of termination after 10 years of allowable service, a deferred vested annuity payable at age 55, provided former member does not withdraw his contributions. (Said 10 years of allowable service need not represent PERA coverage only but may be in conjunction with service covered by other Minnesota funds such as those for state employees and teachers and others which has this same provision; deferred annuity is paid by each fund according to the number of years of allowable service in each fund.)

Annual Annuity determined as for Normal Retirement under the provisions of the Plan at date of termination considering allowable service and salary to date of such termination, augmented by interest at 5%, compounded annually from first of the month following separation from service or from July 1, 1971, whichever is later, to the date annuity begins to accrue.

All former members shall be eligible to receive a refund of their accumulated contributions without interest for the first three years of membership and thereafter with interest at 3 1/2% compounded annually. (Such election is in lieu of any other benefits under the Plan.)

#### 15. Increase for Retired Annuitants, Survivors and Disabilitants who were receiving payments on June 30, 1973

(1) All retired annuitants drawing annuities as of June 30, 1973 shall receive an increase of 25%, payable as follows:

- (a) Those included in the Minnesota Adjustable Fixed Benefit Fund shall have their annuities increased Effective July 1, 1973, by the same ratio as the actuarially computed reserves at 3 1/2% interest bears to the actuarially computed reserves at 5% interest. (This increase amounted to 9.72%.)
- (b) Said annuitants shall receive the remainder of the 25% increase, or 15.28%, effective January 1, 1974.

(2) All survivors and disabilitants who were receiving benefits on June 30, 1973 shall receive an increase of 25% effective January 1, 1974.

16. Optional Annuities

A participant may elect to receive an equivalent actuarially reduced annuity in the form of either a 50% or 100% joint and survivor annuity.

17. Expenses

Paid by Association from retirement fund.

18. Actuarial Method

For purpose of reports to the Legislative Commission on Pensions and Retirement, costs for the Plan shall be determined on an "entry-age level normal cost" basis and 5% interest.

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONFINANCIAL BALANCE SHEET  
(Year Commencing July 1, 1976)Basic MembersRESERVES

## Entry Age Normal Reserves

Retirement	\$533,369,376		
Vesting	54,812,695		
Disability	34,004,445		
Survivors	31,245,885		
Refund	<u>2,002,791</u>		
	\$655,435,192		
Less Value of Benefits to be Earned in the Future	192,357,536	\$463,077,656	
Vested Members			2,893,668
Retired Members			
Retirements Payable from Minnesota Adjustable Fixed Benefit Fund	\$122,586,660		
Disability	7,256,795		
Survivors	34,644,260		
Reserve for Future Old Law Survivors	10,165,433		
Less Receivable from Minnesota Adjustable Fixed Benefit Fund	<u>- 2,982,672</u>	<u>\$171,670,476</u>	\$637,641,800
Unfunded Obligation			<u>285,869,139</u>
Funded Obligation			<u>\$351,772,661</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONACTUARIAL REQUIREMENTS  
(July 1, 1976)Basic MembersAMORTIZATION RATE REQUIREMENT

Present Value of Benefits (For Both Past and Future Service)		\$829,999,336
Obligation for Service Rendered to Date	\$ 637,641,800	
Net Assets	351,772,661	
Accrued Unfunded Obligation	285,869,139	
Funding Ratio		55%
Amortization (21-Year) Requirement	\$ 22,296,678	
Covered Payroll	189,894,459	
Amortization (21-Year) Rate Requirement		11.742%

ENTRY AGE NORMAL RATE REQUIREMENT

Value of Benefits to be Earned in the Future	\$ 192,357,536	
Present Value of Future Payroll	1,391,137,100	
Normal Cost Rate Requirement	13.827%	
Employee Contribution Rate	<u>8.000%</u>	
Employer Normal Cost Rate Requirement		<u>5.827%</u>

ACTUARIAL BALANCE

Employer Contribution Rate Set by Law		10.500%
Amortization (21-Year) Rate Requirement	11.742%	
Normal Cost Rate Requirement	5.827	
Allowance for Expenses	<u>0.148</u>	
Total Requirement		17.717%
Excess (Deficit) of Employer Contribution Rate Set by Law and Total Requirement		<u>(7.217%)</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONACTUARIAL REQUIREMENTS  
(July 1, 1976)Basic MembersAMORTIZATION RATE REQUIREMENT

	Period			
	<u>10-Year</u>	<u>20-Year</u>	<u>30-Year</u>	<u>40-Year</u>
Accrued Unfunded Obligation	\$285,869,139	\$285,869,139	\$285,869,139	\$285,869,139
Amortization Requirement	37,021,368	22,938,883	18,596,188	16,659,939
Covered Payroll	189,894,459	189,894,459	189,894,459	189,894,459
Amortization Rate Requirement	<u>19.496%</u>	<u>12.080%</u>	<u>9.793%</u>	<u>8.773%</u>

ACTUARIAL BALANCE

Employer Contribution Rate Set by Law	<u>10.500%</u>	<u>10.500%</u>	<u>10.500%</u>	<u>10.500%</u>
Amortization Rate Requirement	19.496%	12.080%	9.793%	8.773%
Normal Cost Rate Requirement	5.827	5.827	5.827	5.827
Allowance for Expenses	<u>0.148</u>	<u>0.148</u>	<u>0.148</u>	<u>0.148</u>
Total Requirement	<u>25.471%</u>	<u>18.055%</u>	<u>15.768%</u>	<u>14.748%</u>
Excess (Deficit) of Employer Contribution Rate Set by Law and Total Requirement	<u>(14.971%)</u>	<u>(7.555%)</u>	<u>(5.268%)</u>	<u>(4.248%)</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATION

Basic Members

STATEMENT OF REVENUE, EXPENDITURES,  
CHANGES IN RESERVES AND EXPERIENCE GAIN (LOSS)  
(Year Ending June 30, 1976)

Revenue:

Employer Contributions	\$18,354,481.87	
Member Contributions	13,951,449.07	
Investment Income	12,908,182.08	
Minnesota Adjustable Fixed Benefit Fund Income	<u>( 623,945.89)</u>	
Total Revenue		\$44,581,167.13

Expenditure:

Benefits	\$22,609,839.24	
Refund of Contributions	203,427.36	
Administrative Expense	329,101.47	
Transfer to Police and Fire Fund	<u>( 811.24)</u>	
Total Expenditures		<u>\$23,141,556.83</u>

Increase in Assets (1976) \$21,439,610.30

PUBLIC EMPLOYEES RETIREMENT ASSOCIATION  
RECONCILIATION OF CHANGE IN ACTUARIAL RESERVES

Basic Members

ALLOCATION OF CHANGE IN ACTUARIAL RESERVES

	<u>Increase</u>	<u>Decrease</u>	
Increase in Assets			\$ 21,439,610
Amortization Payment		\$ 6,703,246	
Excess Interest (0.72% x Average Invested Assets)		1,571,608	
Estimated Excess (Deficit) in Rate	\$11,149,915		
Other Income		2,982,672	
Increases in Compensation	<u>28,342,835</u>		
Totals	<u>\$39,492,750</u>	<u>\$ 11,257,526</u>	
Expected Decrease (Increase) in Unfunded			<u>(28,235,224)</u>
Net Change in Reserves Experience Variation (Gain) Loss			\$ 49,674,834 <u>( 471,121)</u>
Total			<u>\$ 49,203,713</u>
1976 Actuarial Reserve			\$637,641,800
1975 Actuarial Reserve			<u>588,438,087</u>
Increase (Decrease)			<u>\$ 49,203,713</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONRECONCILIATION OF ACTIVE MEMBERS  
(June 30, 1976)Basic Members

As of July 1, 1975	21,242
New Entrants	6
Transfers	<u>- 18</u>
Total	<u>21,230</u>
 <u>Separations:</u>	
a. With Refund of Contributions	
(i) Death	70
(ii) Withdrawal	120
b. With Deferred Annuity	85
c. With Disability Annuity	83
d. With Normal Retirement Annuity	616
e. With Survivor Annuity	151
f. With Disability Survivor Annuity	<u>13</u>
Total	<u>1,138</u>
Active as of July 1, 1976	<u>20,092</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONRECONCILIATION OF ANNUITANTSBasic MembersNormal Retirement Annuitants

As of July 1, 1975	6,613
Additions During Year	701
Deletions During Year	- 372
<u>Total as of July 1, 1976</u>	<u>6,942</u>
Annual Annuity - July 1, 1975	\$15,529,643
- July 1, 1976	\$17,024,242

Disability Annuitants

As of July 1, 1975	315
Additions During Year	83
Deletions During Year	- 32
<u>Total as of July 1, 1976</u>	<u>366</u>
Annual Annuity - July 1, 1975	\$ 839,357
- July 1, 1976	\$ 937,699

Survivor Annuitants

(a) Spouse Only as of July 1, 1975	2,487
Optional Survivors as of July 1, 1975	76
Additional Spouse Only During Year	183
Additional Optional Survivors During Year	16
Deletions During Year	- 132

<u>Total as of July 1, 1976</u>	<u>2,630</u>
Annual Annuity - July 1, 1975	\$ 2,668,807
- July 1, 1976	\$ 2,900,269

(b) Survivor with Children	
As of July 1, 1975	579
Additions During Year	27
Deletions During Year	- 5

<u>Total as of July 1, 1976</u>	<u>601</u>
Annual Annuity - July 1, 1975	\$ 668,910
- July 1, 1976	\$ 701,166

(c) Children	
As of July 1, 1975	619
Additions During Year	67
Deletions During Year	- 212

<u>Total as of July 1, 1976</u>	<u>474</u>
Annual Annuity - July 1, 1975	\$ 412,865
- July 1, 1976	\$ 386,710

Deferred Vested Members

As of July 1, 1975	826
Additions During Year	85
Deletions During Year	- 26

<u>Total as of July 1, 1976</u>	<u>885</u>
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Basic Members

SUPPORTING EXHIBITS

Exhibit 39	Retired Prior to July 1, 1973	59
Exhibit 40	Retired Under Law in Force July 1, 1973 and Subsequent	60
Exhibit 41	St. Paul Bureau of Health	61
Exhibit 42	Beneficiaries Payable from Minnesota Adjustable Fixed Benefit Fund	62
Exhibit 43	Disability Retirements	63
Exhibit 44	Survivor Annuities - Female	64
Exhibit 45	Survivor Annuities - Male	65
Exhibit 46	Considered Earnings - Male	66
Exhibit 47	Considered Earnings - Female	67
Exhibit 48	Summary of Plan	68 - 71

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONBasic MembersRetired Prior to July 1, 1973Payable From Adjustable Fixed Benefit Fund

<u>Age</u>	<u>Male</u>		<u>Female</u>	
	<u>Number</u>	<u>Monthly Annuity</u>	<u>Number</u>	<u>Monthly Annuity</u>
61	1	\$ 163.59	-	\$ -
62	2	258.74	4	312.47
63	3	429.18	4	541.38
64	7	804.94	8	719.83
65	16	2,631.53	16	2,336.82
66	19	3,388.55	28	4,006.00
67	40	7,704.90	26	3,880.89
68	79	16,946.73	59	8,675.14
69	181	36,328.45	137	19,161.36
70	161	32,908.50	148	20,565.42
71	170	33,241.37	121	17,246.95
72	140	28,224.81	130	18,961.95
73	156	30,817.48	128	17,561.19
74	176	34,457.65	138	20,809.29
75	198	40,700.97	112	16,692.63
76	170	33,207.97	107	16,192.48
77	164	31,434.19	116	16,859.83
78	145	27,731.88	94	16,008.67
79	147	25,334.12	90	15,519.93
80	158	31,541.88	87	13,273.32
81	136	26,536.08	80	11,365.42
82	137	27,451.38	66	9,848.12
83	96	17,055.59	49	6,205.44
84	91	17,079.80	52	6,435.67
85	80	14,684.41	45	7,368.57
86	51	9,888.37	36	5,031.70
87	58	11,233.54	35	5,651.48
88	41	7,269.51	25	3,555.89
89	35	5,703.86	16	2,110.91
90	25	4,070.36	9	2,018.93
91	18	2,704.59	11	975.40
92	15	2,725.56	7	1,368.96
93	15	1,988.69	4	639.74
94	7	1,066.13	3	524.86
95	2	405.26	2	146.74
96	3	289.91	2	213.28
97	2	457.98	-	-
98	1	135.75	-	-
99	1	111.88	-	-
101	1	155.76	-	-
102	1	121.90	1	143.00
104	1	126.20	-	-
<u>Totals</u>	<u>2950</u>	<u>\$569,519.94</u>	<u>1996</u>	<u>\$292,929.66</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONBasic MembersRetired Under Law in Force July 1, 1973 and SubsequentPayable From Adjustable Fixed Benefit Fund

<u>Age</u>	<u>Male</u>		<u>Female</u>	
	<u>Number</u>	<u>Monthly Annuity</u>	<u>Number</u>	<u>Monthly Annuity</u>
59	1	\$ 227.47	3	\$ 1,486.92
60	11	2,699.85	12	4,292.34
61	5	1,985.83	16	4,653.94
62	34	14,748.63	23	6,945.27
63	42	17,141.05	39	11,266.59
64	66	28,725.24	42	12,699.12
65	112	39,830.46	74	19,724.60
66	241	79,226.78	202	42,143.29
67	226	66,974.57	206	39,542.28
68	159	51,085.96	132	25,002.84
69	57	17,282.42	45	9,333.95
70	30	8,334.98	28	4,598.82
71	27	6,720.42	14	1,492.11
72	16	3,864.33	15	2,830.25
73	20	7,981.39	10	880.15
74	10	1,930.25	4	685.49
75	8	3,093.24	4	669.44
76	5	1,647.94	3	240.14
77	5	806.84	9	1,352.10
78	6	1,597.12	2	206.85
79	1	489.85	2	160.33
80	-	-	3	411.01
81	1	132.56	-	-
82	1	24.18	-	-
84	1	757.65	-	-
85	1	27.53	-	-
86	2	361.80	-	-
90	1	96.27	-	-
<u>Totals</u>	<u>1089</u>	<u>\$357,794.61</u>	<u>888</u>	<u>\$190,617.83</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONBasic MembersSt. Paul Bureau of Health

<u>Age</u>	<u>Male</u>		<u>Female</u>	
	<u>Number</u>	<u>Monthly Annuity</u>	<u>Number</u>	<u>Monthly Annuity</u>
55	-	\$ -	1	\$ 409.52
56	-	-	1	358.95
64	-	-	1	355.20
66	-	-	1	403.18
69	3	1,197.40	2	888.00
73	1	444.00	-	-
74	1	431.42	-	-
75	-	-	1	444.00
76	-	-	1	444.00
78	1	444.00	-	-
80	-	-	1	444.00
84	1	410.70	-	-
85	-	-	1	444.00
92	-	-	1	355.20
97	-	-	1	355.20
<u>Totals</u>	<u>7</u>	<u>\$2,927.52</u>	<u>12</u>	<u>\$ 4,901.25</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONBasic MembersBeneficiaries Payable From Minnesota Adjustable Fixed Benefit Fund

<u>Age</u>	<u>Male</u>		<u>Female</u>	
	<u>Number</u>	<u>Monthly Annuity</u>	<u>Number</u>	<u>Monthly Annuity</u>
40	1	\$ 39.36	-	\$ -
49	1	27.52	-	-
56	-	-	2	320.76
57	1	138.66	1	180.04
58	-	-	3	626.12
60	-	-	1	552.61
61	-	-	2	514.50
62	-	-	2	618.43
63	-	-	2	352.73
64	-	-	5	694.66
65	-	-	2	810.41
66	-	-	5	976.78
67	-	-	5	525.71
68	-	-	3	789.72
69	-	-	4	473.54
70	-	-	1	47.44
71	1	138.55	2	387.18
72	-	-	4	1,297.63
73	-	-	7	1,459.74
74	-	-	1	90.10
75	-	-	3	250.19
76	-	-	1	343.59
77	-	-	1	98.74
78	-	-	1	92.74
79	-	-	3	345.05
80	-	-	4	1,020.00
81	-	-	1	62.66
85	-	-	1	139.50
87	-	-	1	44.70
<u>Totals</u>	<u>4</u>	<u>\$344.09</u>	<u>68</u>	<u>\$13,115.27</u>

Annuities Payable for a Certain Period Not Dependent on Age

<u>Number</u>	<u>Monthly Annuity</u>
<u>8</u>	<u>\$1,061.13</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONBasic MembersDisability Retirements

<u>Age</u>	<u>Male</u>		<u>Female</u>	
	<u>Number</u>	<u>Monthly Annuity</u>	<u>Number</u>	<u>Monthly Annuity</u>
39	1	\$ 273.51	-	\$ -
41	1	190.24	-	-
42	-	-	1	644.47
44	1	166.63	-	-
45	1	306.36	-	-
46	1	394.21	1	222.51
47	4	1,208.52	1	80.08
49	5	1,313.34	1	136.93
51	4	794.48	3	532.23
52	9	1,539.22	1	185.32
53	11	2,551.66	7	1,124.02
54	7	1,258.84	12	1,827.26
55	4	852.82	5	715.86
56	10	2,276.60	6	649.51
57	11	2,846.64	2	607.19
58	13	3,630.10	8	1,341.38
59	12	3,361.45	9	1,474.41
60	16	3,924.74	6	959.32
61	21	5,813.52	12	2,023.42
62	29	8,308.59	16	1,679.45
63	29	8,359.80	18	2,939.47
64	21	3,537.38	19	3,407.53
65	14	2,846.36	11	1,736.25
<u>Totals</u>	<u>225</u>	<u>\$55,855.01</u>	<u>139</u>	<u>\$22,286.61</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONBasic MembersSurvivor Annuities

<u>Age</u>	<u>Female</u>		<u>Age</u>	<u>Female</u>	
	<u>Number</u>	<u>Monthly Annuity</u>		<u>Number</u>	<u>Monthly Annuity</u>
30	1	\$ 300.00	68	81	\$ 7,331.45
31	1	300.00	69	94	8,584.82
32	1	270.00	70	87	8,004.88
33	1	225.00	71	102	9,115.73
34	1	81.25	72	103	9,046.73
36	1	297.00	73	109	9,771.32
37	1	259.00	74	117	10,817.66
38	2	282.90	75	117	10,950.65
39	2	127.23	76	101	9,265.34
40	3	431.90	77	98	8,484.44
41	1	350.00	78	108	9,954.43
42	3	571.10	79	106	9,039.65
43	4	325.00	80	94	8,836.59
44	7	1,300.00	81	94	7,879.41
45	4	697.25	82	78	6,984.56
46	8	1,315.25	83	85	6,991.68
47	13	1,846.85	84	69	5,238.87
48	17	3,461.83	85	70	5,360.12
49	17	2,309.17	86	44	3,025.31
50	22	2,851.80	87	53	3,590.43
51	17	3,152.69	88	39	3,134.95
52	26	3,556.02	89	28	2,043.56
53	23	2,398.19	90	26	1,650.78
54	42	5,393.63	91	19	1,162.35
55	36	4,440.78	92	9	417.44
56	35	4,234.61	93	7	570.99
57	51	5,662.22	94	4	376.68
58	40	5,567.69	95	1	67.54
59	55	6,202.31	96	3	193.08
60	55	5,992.69	97	2	267.41
61	64	6,281.12	98	3	182.50
62	59	5,380.04	102	1	92.93
63	86	8,287.83			
64	87	8,180.64			
65	78	7,710.12			
66	85	8,039.31			
67	81	7,776.35			
			<u>TOTALS</u>	<u>2984</u>	<u>\$284,293.05</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONBasic MembersSurvivor AnnuitiesMale

<u>Age</u>	<u>Number</u>	<u>Monthly Annuity</u>
58	2	\$ 153.68
62	1	221.14
63	2	418.26
65	1	315.30
69	1	82.38
71	2	104.82
72	1	81.25
74	1	125.00
75	1	195.25
76	1	43.31
77	2	76.73
78	2	142.91
79	1	81.25
80	1	116.09
81	3	110.50
86	1	25.76
89	1	73.58
<u>TOTALS</u>	<u>24</u>	<u>\$2,367.21</u>

Children

<u>Number</u>	<u>Monthly Annuity</u>
<u>474</u>	<u>\$32,225.85</u>

## PUBLIC EMPLOYEES RETIREMENT ASSOCIATION

## Basic Members

## CONSIDERED EARNINGS

## Active Male Employees

(Age and Service as of July 1, 1976)

Age	YEARS OF SERVICE							
	Under 1		1 to 2		2 to 5		5 to 10	
	No.	Earnings	No.	Earnings	No.	Earnings	No.	Earnings
Under 25	-	\$ -	1	\$ 1,302	-	\$ -	-	\$ -
25 to 30	-	-	-	-	3	16,976	64	647,294
30 to 35	-	-	1	1,740	2	39,421	290	3,490,466
35 to 40	-	-	1	17,561	3	54,281	326	3,277,456
40 to 45	-	-	1	28,520	4	21,375	296	2,910,890
45 to 50	2	3,188	1	3,090	7	74,883	341	3,050,956
50 to 55	1	3,309	1	15,327	6	57,170	299	2,481,012
55 to 60	1	8,797	-	-	3	57,604	286	2,648,202
60 to 65	4	41,078	3	49,714	6	47,713	140	1,110,109
65 & Up	4	34,548	1	6,300	5	17,536	64	357,697
<u>Total</u>	<u>12</u>	<u>\$ 90,920</u>	<u>10</u>	<u>\$ 123,554</u>	<u>39</u>	<u>\$ 386,959</u>	<u>2106</u>	<u>\$ 19,974,082</u>

Age	YEARS OF SERVICE							
	10 to 15		15 to 20		20 to 25		25 to 30	
	No.	Earnings	No.	Earnings	No.	Earnings	No.	Earnings
Under 25	-	\$ -	-	\$ -	-	\$ -	-	\$ -
25 to 30	16	75,210	-	-	-	-	-	-
30 to 35	248	2,637,227	8	123,196	-	-	-	-
35 to 40	509	5,375,571	189	2,335,853	8	113,613	-	-
40 to 45	592	6,939,124	396	5,249,926	141	2,201,482	15	263,674
45 to 50	491	5,378,514	482	5,935,782	337	4,861,115	110	1,751,034
50 to 55	566	5,597,820	616	7,268,521	467	6,550,209	265	4,122,866
55 to 60	541	5,334,614	577	6,217,481	449	5,865,859	293	4,249,729
60 to 65	306	3,248,076	414	4,528,806	349	4,200,065	236	3,161,336
65 & Up	78	652,391	76	705,667	70	688,387	37	499,623
<u>Total</u>	<u>3347</u>	<u>\$ 35,238,547</u>	<u>2758</u>	<u>\$32,364,557</u>	<u>1821</u>	<u>\$24,480,730</u>	<u>956</u>	<u>\$ 14,048,262</u>

Age	YEARS OF SERVICE							
	30 to 35		35 to 40		40 & Up		ALL	
	No.	Earnings	No.	Earnings	No.	Earnings	No.	Earnings
Under 25	-	\$ -	-	\$ -	-	\$ -	1	\$ 1,302
25 to 30	-	-	-	-	-	-	83	739,480
30 to 35	-	-	-	-	-	-	549	6,292,050
35 to 40	-	-	-	-	-	-	1036	11,173,660
40 to 4	-	-	-	-	-	-	1445	17,614,991
45 to 50	2	24,245	-	-	-	-	1773	21,082,807
50 to 55	29	411,222	-	-	-	-	2250	26,507,456
55 to 60	56	820,312	12	215,533	1	11,429	2219	25,429,560
60 to 65	83	1,155,670	29	460,685	5	80,260	1575	18,083,512
65 & Up	17	205,091	7	114,180	4	57,785	363	3,339,205
<u>Total</u>	<u>187</u>	<u>\$ 2,616,540</u>	<u>48</u>	<u>\$ 790,398</u>	<u>10</u>	<u>\$ 149,474</u>	<u>11294</u>	<u>\$130,264,023</u>

Based on census data from the Association as of June 30. Corrections are made during the year as received from the reporting units.

Basic Members

CONSIDERED EARNINGS

Active Female Employees  
(Age and Service as of July 1, 1976)

Age	YEARS OF SERVICE							
	Under 1		1 to 2		2 to 5		5 to 10	
	No.	Earnings	No.	Earnings	No.	Earnings	No.	Earnings
Under 25	1	\$ 3,036	-	\$ -	-	\$ -	1	\$ 5,389
25 to 30	-	-	-	-	-	-	95	638,809
30 to 35	-	-	-	-	-	-	126	931,839
35 to 40	-	-	-	-	3	24,611	227	1,398,122
40 to 45	1	8,786	-	-	1	1,709	472	2,392,739
45 to 50	-	-	-	-	3	27,774	598	2,610,013
50 to 55	-	-	1	4,775	5	113,688	697	3,099,055
55 to 60	-	-	1	3,280	7	65,618	616	2,370,407
60 to 65	1	24,259	1	13,703	8	100,965	297	1,598,527
65 & Up	3	9,013	-	-	2	5,411	53	215,515
<u>Total</u>	<u>6</u>	<u>\$ 45,094</u>	<u>3</u>	<u>21,758</u>	<u>29</u>	<u>\$ 339,776</u>	<u>3182</u>	<u>\$ 15,044,900</u>

Age	YEARS OF SERVICE							
	10 to 15		15 to 20		20 to 25		25 to 30	
	No.	Earnings	No.	Earnings	No.	Earnings	No.	Earnings
Under 25	-	\$ -	-	\$ -	-	\$ -	-	\$ -
25 to 30	35	295,888	-	-	-	-	-	-
30 to 35	141	1,407,725	5	48,374	-	-	-	-
35 to 40	134	1,379,066	63	643,966	18	139,199	-	-
40 to 45	221	1,903,545	98	872,308	46	366,841	16	171,714
45 to 50	478	3,285,253	218	1,756,459	83	913,636	29	345,530
50 to 55	724	5,395,517	362	2,653,749	141	1,191,670	35	438,171
55 to 60	672	4,451,034	466	3,226,177	146	1,350,676	51	604,274
60 to 65	440	2,852,105	367	2,789,118	149	1,374,266	82	998,452
65 & Up	86	429,745	72	435,415	44	347,260	15	145,879
<u>Total</u>	<u>2931</u>	<u>\$ 21,399,878</u>	<u>1651</u>	<u>\$12,425,566</u>	<u>627</u>	<u>\$ 5,683,548</u>	<u>228</u>	<u>\$ 2,704,020</u>

Age	YEARS OF SERVICE							
	30 to 35		35 to 40		40 & Up		ALL	
	No.	Earnings	No.	Earnings	No.	Earnings	No.	Earnings
Under 25	-	\$ -	-	\$ -	-	\$ -	2	\$ 8,425
25 to 30	-	-	-	-	-	-	130	934,697
30 to 35	-	-	-	-	-	-	272	2,387,938
35 to 40	-	-	-	-	-	-	445	3,584,964
40 to 45	-	-	-	-	-	-	855	5,717,642
45 to 50	10	126,325	-	-	-	-	1419	9,064,990
50 to 55	20	242,467	-	-	-	-	1985	13,139,092
55 to 60	28	330,087	11	135,224	3	38,077	2001	12,574,854
60 to 65	27	342,371	21	237,895	9	146,592	1402	10,478,253
65 & Up	4	44,368	4	48,351	4	58,624	287	1,739,581
<u>Total</u>	<u>89</u>	<u>\$ 1,085,618</u>	<u>36</u>	<u>\$ 421,470</u>	<u>16</u>	<u>\$ 243,293</u>	<u>8798</u>	<u>\$ 59,630,436</u>

Based on census data from the Association as of June 30. Corrections are made during the year as received from the reporting units.

PUBLIC EMPLOYEES RETIREMENT ASSOCIATION

Basic Members

SUMMARY OF PLAN  
(Effective July 1, 1975)

1. Name

Public Employees Retirement Association.

2. Type of Plan

Self-insured, managed by a 13-member Board of Trustees, ten elected and three appointed by three employer groups.

3. Employer Included

Any county, city, borough, town, school district within the state, or a department or unit of the state or any other public body employing any person who is a public employee as defined by the law.

4. Employees Included

All full time and certain part time employees who did not elect coverage under Section 218(d) of the Social Security Act and who are not contributing to any other local retirement plan.

5. Allowable Service

All periods of public service during which salary deductions were made or for which payments in lieu of salary deductions were deposited, including authorized leaves of absence, sick leaves, military leaves or layoffs.

6. Considered Salary

Salary means the periodical total compensation of any public employee before deductions for deferred compensation or supplemental retirement plans, and also means wages and includes net income from fees.

7. Employee Contributions

After July 1, 1973, 8% of considered salary.

8. Employer Contributions

Amount equal to the Employee Contributions plus 2 1/2% of considered salary.

#### 9. Normal Retirement Annuity

After attainment of age 65 and completion of at least 10 years of allowable service.

"Average Salary" means an amount equivalent to the highest salary upon which contributions were paid for any five successive years of allowable service.

Annuity equal to:

- (a) 2% of "Average Salary" for each of the first 10 years of allowable service plus
- (b) 2 1/2% of "Average Salary" for each year of service over 10 years.

#### 10. Late Retirement Annuity

Annual Annuity determined as for Normal Retirement, considering allowable service and salary to actual retirement.

#### 11. Early Retirement Annuity

After attainment of age 58 and completion of 20 years of allowable service.

Annual Annuity determined as for Normal Retirement considering allowable service and salary to actual retirement and reduced by 1/2 of 1% for each month between actual retirement and attainment of age 65 if service is less than 30 years, and between actual retirement and age 62 if service is 30 or more years.

#### 12. Special Early Retirement Annuity

After attainment of age 62 and completion of 30 years of allowable service.

Annual Annuity determined as for Normal Retirement considering allowable service and salary to actual retirement without reduction for such early retirement.

#### 13. Proportionate annuity

At age 65 or earlier under a mandatory retirement statute or uniformly applied compulsory retirement policy and completion of at least three years but less than 10 years of allowable service.

Annual annuity determined as for Normal Retirement, considering allowable service and salary to actual retirement.

#### 14. Disability Benefit

In the event of total and permanent disability, after completion of 10 years of allowable service or attainment of age 50 and completion of 5 years of allowable service.

Annual Benefit payable to age 65 determined as for Normal Retirement, considering allowable service and salary to date of disablement, plus a supplement equal to \$5 for each year that age at disablement is less than 65, maximum supplement \$50. Total Benefit is limited to 100% of "Average Salary."

If disability continues to age 65, the disability benefit shall terminate and the person shall be deemed to be on retirement status and may elect to receive the greater of an annuity determined as for Normal Retirement or the disability benefit he was receiving prior to age 65, or he may select an optional annuity.

Any disabilitant attaining age 65 after July 1, 1973 shall have his annuity computed in accordance with the Normal Retirement Annuity formula above.

#### 15. Survivor or Death Benefit

In event of death of an active member after 18 months of allowable service, or in the event of death of a disabilitant prior to age 65.

Annual Survivor Benefit to dependent spouse, of 30% of average salary during the last six months of allowable service, plus for each dependent child, 10% of such average salary. Maximum family benefit equal to \$450 per month. Minimum family benefit equal to 30% of such average Salary, subject to the maximum limitation.

In the event of death of a retired annuitant and no survivor benefits are payable, the excess (if any) of his accumulated contributions not paid out in the way of annuities shall be paid to his designated beneficiary, without interest.

Upon the death of an active member after age 58 and completion of 20 or more years of allowable service or if the member has made application for an annuity or disability benefit and dies prior to commencement of his benefit, the surviving spouse (in lieu of any other survivor benefit) may elect to receive an annuity equal to the 50% joint and survivor annuity the member could have qualified for on the date of his death.

In case of death of a member who has no eligible surviving dependents, his accumulated contributions shall be paid to his designated beneficiary with interest thereon at 3 1/2% per annum compounded annually.

#### 16. Separation Benefit

In event of termination after 10 years of allowable service, a deferred vested annuity payable at age 65, or earlier if otherwise eligible, provided former member does not withdraw his contributions. (Said 10 years of allowable service need

not represent PERA coverage only but may be in conjunction with service covered by other Minnesota funds such as those for state employees and teachers and others which has this same provision; deferred annuity is paid by each fund according to the number of years of allowable service in each fund.)

Annual Annuity determined as for Normal Retirement under the provisions of the Plan at date of termination considering allowable service and salary to date of such termination, augmented by interest at 5% compounded annually from first of the month following separation from service or from July 1, 1971, whichever is later, to the date annuity begins to accrue.

All former members shall be eligible to receive a refund of their accumulated contributions without interest for the first three years of membership and thereafter with interest at 3 1/2% compounded annually. (Such election is in lieu of any other benefits under the Plan.)

17. Increase for retired Annuitants, Survivors and  
Disabilitants who were receiving payments on  
June 30, 1973

(1) All retired annuitants drawing annuities as of June 30, 1973 shall receive an increase of 25%, payable as follows:

(a) Those included in the Minnesota Adjustable Fixed Benefit Fund shall have their annuities increased effective July 1, 1973, by the same ratio as the actuarially computed reserves at 3 1/2% interest bears to the actuarially computed reserves at 5% interest. (This increase amounted to 9.72%.)

(b) Said annuitants shall receive the remainder of the 25% increase, or 15.28%, effective January 1, 1974.

(2) All survivors and disabilitants who were receiving benefits on June 30, 1973 shall receive an increase of 25% effective January 1, 1974.

18. Optional Annuities

A participant may elect to receive an equivalent actuarially reduced annuity in the form of either a 50% or 100% joint and survivor annuity.

19. Expenses

Paid by Association from retirement fund.

20. Actuarial Method

For purposes of reports to the Legislative Retirement Study Commission, costs for the Plan shall be determined on an "entry-age level normal cost" basis and 5% interest.

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONFINANCIAL BALANCE SHEET  
(Year Commencing July 1, 1976)Coordinated MembersRESERVES

Entry Age Normal Reserves			
Retirement	\$283,100,756		
Vesting	58,419,700		
Disability	18,667,462		
Survivors	5,441,713		
Refund	<u>28,009,847</u>		
	\$393,639,478		
Less Value of Benefits to be Earned in the Future	236,678,144	\$156,961,334	
Vested Members		2,276,463	
Retired Members			
Retirements Payable from Minnesota Adjustable Fixed Benefit Fund	\$ 18,747,730		
Disability	861,826		
Survivors	60,862		
Less Receivable from Minnesota Adjustable Fixed Benefit Fund	<u>- 456,154</u>	<u>\$ 19,214,264</u>	\$178,452,061
Unfunded Obligation			<u>19,072,304</u>
Funded Obligation			<u>\$159,379,757</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONACTUARIAL REQUIREMENTS  
(July 1, 1976)Coordinated MembersAMORTIZATION RATE REQUIREMENT

Present Value of Benefits (For Both Past and Future Service)		\$415,130,205
Obligation for Service		
Rendered to Date	\$ 178,452,061	
Net Assets	159,379,757	
Accrued Unfunded Obligation	19,072,304	
Funding Ratio		89%
Amortization (21-Year) Requirement	1,487,565	
Covered Payroll	467,715,307	
Amortization (21-Year) Rate Requirement		<u>0.335%</u>

ENTRY AGE NORMAL RATE REQUIREMENT

Value of Benefits to be Earned in the Future	\$ 236,678,144	
Present Value of Future Payroll	3,301,387,900	
Normal Cost Rate Requirement	7.169%	
Employee Contribution Rate	<u>4.000</u>	
Employer Normal Cost Rate Requirement		<u>3.169%</u>

ACTUARIAL BALANCE

Employer Contribution Rate Set by Law		5.500%
Amortization (21-Year) Rate Requirement	0.335%	
Normal Cost Rate Requirement	3.169	
Allowance for Expenses	<u>0.148</u>	
Total Requirement		3.652%
Excess (Deficit) of Employer Contribution Rate Set by Law and Total Requirement		<u>1.848%</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONACTUARIAL REQUIREMENTS  
(July 1, 1976)Coordinated MembersAMORTIZATION RATE REQUIREMENT

	Period			
	<u>10-Year</u>	<u>20-Year</u>	<u>30-Year</u>	<u>40-Year</u>
Accrued Unfunded Obligation	\$ 19,072,304	\$ 19,072,304	\$ 19,072,304	\$ 19,072,304
Amortization Requirement	2,469,951	1,530,411	1,240,680	1,111,500
Covered Payroll	444,196,003	444,196,003	444,196,003	444,196,003
Amortization Rate Requirement	<u>0.556%</u>	<u>0.345%</u>	<u>0.279%</u>	<u>0.250%</u>

ACTUARIAL BALANCE

Employer Contribution Rate Set by Law	<u>5.500%</u>	<u>5.500%</u>	<u>5.500%</u>	<u>5.500%</u>
Amortization Rate Requirement	0.556%	0.345%	0.279%	0.250%
Normal Cost Rate Requirement	3.169	3.169	3.169	3.169
Allowance for Expenses	<u>0.148</u>	<u>0.148</u>	<u>0.148</u>	<u>0.148</u>
Total Requirement	<u>3.873%</u>	<u>3.662%</u>	<u>3.596%</u>	<u>3.567%</u>
Excess (Deficit) of Employer Contribution Rate Set by Law and Total Requirement	<u>1.627%</u>	<u>1.838%</u>	<u>1.904%</u>	<u>1.933%</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONCoordinated Members

STATEMENT OF REVENUE, EXPENDITURES,  
CHANGES IN RESERVES AND EXPERIENCE GAIN (LOSS)  
 (Year Ending June 30, 1976)

Revenue:

Employer Contributions	\$24,416,338.00	
Member Contributions	17,715,537.38	
Investment Income	6,885,729.90	
Minnesota Adjustable Fixed Benefit Fund Income	<u>( 84,702.28)</u>	
Total Revenue		\$48,932,903.00

Expenditure:

Benefits	\$ 2,378,057.33	
Refund of Contributions	5,376,576.57	
Administrative Expense	643,730.14	
Total Expenditures		<u>8,398,364.04</u>
Increase in Assets (1976)		<u><u>\$40,534,538.96</u></u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATION  
RECONCILIATION OF CHANGE IN ACTUARIAL RESERVES

Coordinated Members

ALLOCATION OF CHANGE IN ACTUARIAL RESERVES

	<u>Increase</u>	<u>Decrease</u>	
Increase in Assets			\$ 40,534,539
Amortization Payment		\$ 464,636	
Excess Interest (0.72% x Average Invested Assets)		863,837	
Estimated Excess in Rate (Deficit)		7,231,414	
Contribution Requirement Applied to Larger Payroll		3,466,905	
Other Income		456,154	
Increases in Compensation	<u>\$13,724,293</u>		
Totals	<u>\$13,724,293</u>	<u>\$ 12,482,946</u>	
Expected Decrease (Increase) in Unfunded			<u>(1,241,347)</u>
Net Change in Reserves			\$ 41,775,886
Experience Variation (Gain) Loss			<u>( 59,605)</u>
Total			<u>\$ 41,716,281</u>
1976 Actuarial Reserve			\$178,452,061
1975 Actuarial Reserve			<u>136,735,780</u>
Increase (Decrease)			<u>\$ 41,716,281</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONRECONCILIATION OF ACTIVE MEMBERS  
(June 30, 1976)Coordinated Members

As of July 1, 1975	59,898
New Entrants	14,902
Reinstated	3,076
Transfer	<u>18</u>
<u>Total</u>	<u>77,894</u>

Separations:

a. With Refund of Contributions	
(i) Death	136
(ii) Withdrawal	13,708
b. With Deferred Annuity	24
c. With Disability Annuity	36
d. With Normal Retirement Annuity	266
e. With Survivor Annuity	<u>18</u>
<u>Total</u>	<u>14,188</u>

Active as of July 1, 1976	<u>63,706</u>
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PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONRECONCILIATION OF ANNUITANTSCoordinated MembersNormal Retirement Annuitants

As of July 1, 1975	\$ 1,261
Additions During Year	290
Deletions During Year	<u>- 46</u>
Total as of July 1, 1976	<u>1,505</u>
Annual Annuity - July 1, 1975	\$1,820,016
- July 1, 1976	\$2,282,069

Disability Annuitants

As of July 1, 1975	81
Additions During Year	36
Deletions During Year	<u>- 25</u>
Total as of July 1, 1976	<u>92</u>
Annual Annuity - July 1, 1975	\$ 92,418
- July 1, 1976	\$ 112,555

Survivor Annuitants

Spouse Only	
As of July 1, 1975	7
Additions During Year	18
Deletions During Year	<u>-</u>
Total as of July 1, 1976	<u>25</u>
Annual Annuity - July 1, 1975	\$ 7,615
- July 1, 1976	\$ 25,986

Deferred Vested Members

As of July 1, 1975	85
Additions During Year	24
Deletions During Year	<u>-</u>
Total as of July 1, 1976	<u>\$ 109</u>

Coordinated Members

SUPPORTING EXHIBITS

Exhibit 56	Retired Prior to July 1, 1973	79
Exhibit 57	Retired Under Law in Force July 1, 1973 and Subsequent	80
Exhibit 58	Disability Retirements	81
Exhibit 59	Considered Earnings - Male	82
Exhibit 60	Considered Earnings - Female	83
Exhibit 61	Summary of Plan	84 - 87

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONCoordinated MembersRetired Prior to July 1, 1973

<u>Age</u>	<u>Male</u>		<u>Female</u>	
	<u>Number</u>	<u>Monthly Annuity</u>	<u>Number</u>	<u>Monthly Annuity</u>
63	1	\$ 32.29	-	\$ -
65	-	-	1	172.53
66	3	255.33	2	169.86
67	4	469.27	4	689.68
68	28	2,346.54	14	1,680.74
69	79	7,557.30	34	3,536.46
70	75	7,337.62	30	2,861.11
71	89	8,578.98	33	2,918.61
72	72	6,106.29	27	2,277.44
73	76	7,349.96	26	3,235.01
74	37	3,238.75	23	1,534.59
75	25	1,760.95	10	961.84
76	21	2,454.01	11	1,742.88
77	12	1,349.92	12	1,689.61
78	8	743.82	5	252.56
79	7	1,186.23	2	232.96
80	8	605.38	3	166.65
81	2	586.10	3	489.67
82	4	480.03	-	-
83	1	71.60	2	402.50
84	4	254.36	1	261.04
85	3	375.31	2	232.59
86	2	280.16	1	183.84
<u>Totals</u>	<u>561</u>	<u>\$53,420.20</u>	<u>246</u>	<u>\$25,692.17</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONCoordinated MembersRetired Under Law in Force July 1, 1973 and Subsequent

<u>Age</u>	<u>Male</u>		<u>Female</u>	
	<u>Number</u>	<u>Monthly Annuity</u>	<u>Number</u>	<u>Monthly Annuity</u>
58	1	\$ 241.16	-	\$ -
59	1	215.39	1	158.52
61	2	463.03	2	415.50
62	-	-	1	129.58
63	10	2,508.09	3	485.00
64	9	2,193.07	7	2,267.16
65	54	11,235.47	20	4,314.42
66	132	19,508.72	60	7,127.59
67	123	19,747.67	43	6,247.71
68	84	12,319.33	33	5,170.24
69	27	4,269.47	16	1,266.02
70	14	2,485.51	7	358.96
71	16	2,737.47	4	687.56
72	6	616.68	2	115.01
73	4	560.28	3	150.96
74	2	335.11	-	-
75	-	-	1	265.19
76	2	277.66	1	78.69
77	2	285.26	1	164.16
78	1	464.60	-	-
79	2	1,084.09	-	-
80	1	109.74	-	-
<u>TOTALS</u>	<u>493</u>	<u>\$81,657.80</u>	<u>205</u>	<u>\$29,402.27</u>

Survivor AnnuitiesFemales

<u>Age</u>	<u>Number</u>	<u>Monthly Annuity</u>
32	1	\$ 31.87
50	1	56.86
52	1	59.74
59	1	70.43
60	1	44.13
61	4	312.95
62	2	296.05
64	1	22.30
65	1	115.24
66	1	48.80
67	2	126.63
68	1	54.49
69	1	87.21
70	1	56.82
71	1	37.41
72	1	253.13
76	2	218.91
83	1	141.31
84	1	131.20
<u>TOTALS</u>	<u>25</u>	<u>\$2,165.48</u>

Annuities Payable for a Certain Period Not Dependent on Age

<u>Number</u>	<u>Monthly Annuity</u>
<u>7</u>	<u>\$904.05</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATIONCoordinated MembersDisability Retirements

<u>Age</u>	<u>Male</u>		<u>Female</u>	
	<u>Number</u>	<u>Monthly Annuity</u>	<u>Number</u>	<u>Monthly Annuity</u>
44	2	\$ 180.61	-	\$ -
48	1	281.02	-	-
49	1	88.19	-	-
50	1	145.14	1	281.08
51	-	-	-	-
52	-	-	1	35.69
53	1	171.69	-	-
54	2	98.62	-	-
55	3	168.24	1	6.35
56	-	-	1	65.89
57	6	529.96	3	199.91
58	2	180.48	1	123.88
59	9	813.26	-	-
60	4	733.32	1	88.40
61	4	563.06	2	247.70
62	8	1,190.80	1	89.61
63	13	1,061.63	4	197.73
64	10	1,156.16	3	340.48
65	5	271.33	1	69.34
<u>TOTALS</u>	<u>72</u>	<u>\$7,633.51</u>	<u>20</u>	<u>\$1,746.06</u>

PUBLIC EMPLOYEES RETIREMENT ASSOCIATION

Coordinated Members

CONSIDERED EARNINGS

Active Male Employees  
(Age and Service as of July 1, 1976)

Age	YEARS OF SERVICE							
	Under 1		1 to 2		2 to 5		5 to 10	
	No.	Earnings	No.	Earnings	No.	Earnings	No.	Earnings
Under 25	1446	\$ 8,090,600	668	\$ 5,013,903	560	\$ 4,722,187	26	\$ 271,134
25 to 30	1127	7,812,364	970	8,788,926	1634	16,914,331	578	6,908,704
30 to 35	563	4,412,082	490	5,217,825	1102	13,618,841	991	13,845,493
35 to 40	307	2,441,005	322	3,103,935	674	8,179,966	757	9,948,363
40 to 45	266	1,883,784	264	2,588,735	553	5,800,613	695	9,349,404
45 to 50	243	1,569,399	250	2,106,192	625	6,335,251	743	9,038,098
50 to 55	213	1,432,429	248	2,076,630	588	5,986,933	766	8,489,937
55 to 60	185	1,161,091	187	1,735,475	519	5,058,882	808	8,650,882
60 to 65	96	594,587	133	1,017,544	362	2,873,383	615	5,899,211
65 & Up	43	280,995	46	152,265	167	739,259	218	1,599,933
<u>Total</u>	<u>4489</u>	<u>\$29,578,336</u>	<u>3598</u>	<u>\$31,801,430</u>	<u>6784</u>	<u>\$70,229,646</u>	<u>6197</u>	<u>\$ 74,001,159</u>

Age	YEARS OF SERVICE							
	10 to 15		15 to 20		20 to 25		25 to 30	
	No.	Earnings	No.	Earnings	No.	Earnings	No.	Earnings
Under 25	-	\$ -	-	\$ -	-	\$ -	-	\$ -
25 to 30	6	68,321	-	-	-	-	-	-
30 to 35	56	826,097	5	43,869	-	-	-	-
35 to 40	160	3,193,430	20	334,179	2	18,663	-	-
40 to 45	136	2,209,332	106	2,019,528	14	216,609	1	3,071
45 to 50	155	2,296,437	80	1,368,153	64	1,217,012	11	193,595
50 to 55	182	2,307,666	108	1,611,666	72	1,211,932	44	807,330
55 to 60	248	2,944,714	156	2,132,904	81	1,116,126	43	684,793
60 to 65	231	2,777,958	166	2,073,767	92	1,146,835	31	483,560
65 & Up	64	495,723	53	728,648	25	274,637	10	140,149
<u>Total</u>	<u>1238</u>	<u>\$17,119,678</u>	<u>694</u>	<u>\$10,312,714</u>	<u>350</u>	<u>\$ 5,201,814</u>	<u>140</u>	<u>\$ 2,312,498</u>

Age	YEARS OF SERVICE							
	30 to 35		35 to 40		40 & Up		ALL	
	No.	Earnings	No.	Earnings	No.	Earnings	No.	Earnings
Under 25	-	\$ -	-	\$ -	-	\$ -	2720	\$ 18,097,824
25 to 30	-	-	-	-	-	-	4315	40,492,646
30 to 35	-	-	-	-	-	-	3207	37,964,207
35 to 40	-	-	-	-	-	-	2242	27,219,541
40 to 45	-	-	-	-	-	-	2035	24,071,076
45 to 50	-	-	-	-	-	-	2171	24,124,137
50 to 55	3	43,052	-	-	-	-	2224	23,967,575
55 to 60	11	185,720	2	9,812	-	-	2240	23,680,399
60 to 65	18	243,039	4	62,065	3	44,095	1751	17,216,044
65 & Up	2	16,369	2	16,774	2	37,766	632	4,382,518
<u>Total</u>	<u>34</u>	<u>\$ 521,048</u>	<u>8</u>	<u>\$ 88,651</u>	<u>5</u>	<u>\$ 81,861</u>	<u>23537</u>	<u>\$241,215,967</u>

## PUBLIC EMPLOYEES RETIREMENT ASSOCIATION

## Coordinated Members

## CONSIDERED EARNINGS

Active Female Employees  
(Age and Service as of July 1, 1976)

Age	YEARS OF SERVICE							
	Under 1		1 to 2		2 to 5		5 to 10	
	No.	Earnings	No.	Earnings	No.	Earnings	No.	Earnings
Under 25	3068	\$14,221,822	1667	\$ 9,669,357	1590	\$10,549,377	115	\$ 895,151
25 to 30	1687	8,706,355	1200	7,998,567	2048	16,679,610	935	8,193,032
30 to 35	1283	5,745,006	914	4,630,972	1414	9,091,530	906	8,730,812
35 to 40	1123	4,219,968	930	4,181,523	1851	8,988,535	975	6,527,828
40 to 45	835	3,150,734	717	3,157,861	1929	9,136,701	1397	8,536,475
45 to 50	612	2,322,451	575	2,605,568	1629	7,662,147	1545	9,328,035
50 to 55	415	1,581,462	439	2,021,466	1314	6,434,581	1472	8,779,597
55 to 60	304	1,145,482	267	1,163,782	869	3,920,645	1153	6,589,014
60 to 65	109	394,177	124	530,300	483	2,067,867	762	4,140,679
65 & Up	37	117,317	30	83,758	164	611,200	235	939,387
<u>Total</u>	<u>9473</u>	<u>\$41,604,774</u>	<u>6863</u>	<u>\$36,043,154</u>	<u>1329</u>	<u>\$75,142,193</u>	<u>9495</u>	<u>\$ 62,660,010</u>

Age	YEARS OF SERVICE							
	10 to 15		15 to 20		20 to 25		25 to 30	
	No.	Earnings	No.	Earnings	No.	Earnings	No.	Earnings
Under 25	-	\$ -	-	\$ -	-	\$ -	-	\$ -
25 to 30	6	110,588	-	-	-	-	-	-
30 to 35	45	657,282	4	21,757	-	-	-	-
35 to 40	58	566,387	9	101,756	3	29,225	-	-
40 to 45	44	409,749	12	155,791	3	23,045	-	-
45 to 50	82	701,540	14	168,834	7	81,218	11	102,168
50 to 55	126	1,341,849	28	895,694	19	255,854	12	133,283
55 to 60	127	1,395,816	56	515,607	28	321,943	9	124,424
60 to 65	137	1,160,693	58	444,177	5	300,478	14	152,454
65 & Up	32	222,200	21	173,012	10	87,490	3	41,423
<u>Total</u>	<u>657</u>	<u>\$ 6,566,096</u>	<u>202</u>	<u>\$ 2,476,628</u>	<u>105</u>	<u>\$ 1,099,253</u>	<u>49</u>	<u>\$ 553,752</u>

Age	YEARS OF SERVICE							
	30 to 35		35 to 40		40 & Up		ALL	
	No.	Earnings	No.	Earnings	No.	Earnings	No.	Earnings
Under 25	-	\$ -	-	\$ -	-	\$ -	6440	\$ 35,335,707
25 to 30	-	-	-	-	-	-	5876	41,688,144
30 to 35	-	-	-	-	-	-	4566	28,877,359
35 to 40	-	-	-	-	-	-	4957	24,615,222
40 to 45	-	-	-	-	-	-	4939	24,570,356
45 to 50	2	21,799	-	-	-	-	4475	22,971,961
50 to 55	8	83,602	-	-	-	-	3833	21,527,388
55 to 60	7	76,295	4	39,758	-	-	2824	15,292,766
60 to 65	2	19,642	4	49,374	2	22,279	1722	9,282,120
65 & Up	1	13,611	2	2,559	2	24,561	537	2,316,518
<u>Total</u>	<u>20</u>	<u>\$ 214,949</u>	<u>10</u>	<u>\$ 91,691</u>	<u>4</u>	<u>\$ 46,840</u>	<u>40169</u>	<u>\$226,499,340</u>

Based on census data from the Association as of June 30. Corrections are made during the year as received from the reporting units.

PUBLIC EMPLOYEES RETIREMENT ASSOCIATION

Coordinated Members

SUMMARY OF PLAN

1. Name

Public Employees Retirement Association.

2. Type of Plan

Self-insured, managed by a 13-member Board of Trustees, ten elected and three appointed by three employer groups.

3. Employer Included

Any county, city, borough, town, school district within the state, or a department or unit of the state or any other public body employing any person who is a public employee as defined by the law.

4. Employees Included

All full time and certain part time employees who either elected coverage under Section 218(d) of the Social Security Act, or were automatically so covered by reason of being new employees, and who are not contributing to any other local retirement plan.

5. Allowable Service

All periods of public service during which salary deductions were made or for which payments in lieu of salary deductions were deposited, including authorized leaves of absence, sick leaves, military leaves and layoffs.

6. Considered Salary

Salary means the periodical total compensation of any public employee before deductions for deferred compensation or supplemental retirement plans, and also means wages and includes net income from fees.

7. Employee Contributions

After July 1, 1973, 4% of considered salary.

8. Employer Contributions

Amount equal to the Employee Contributions plus 1 1/2% of considered salary.

## 9. Normal Retirement Annuity

After attainment of age 65 and completion of at least 10 years of allowable service.

"Average Salary" means an amount equivalent to the highest salary upon which contributions were paid for any five successive years of allowable service.

Annuity equal to:

- (a) 1% of "Average Salary" for each of the first 10 years of allowable service plus
- (b) 1 1/2% of "Average Salary" for each year of service over 10 years.

## 10. Late Retirement Annuity

Annual Annuity determined as for Normal Retirement, considering allowable service and salary to actual retirement.

## 11. Early Retirement Annuity

After attainment of age 58 and completion of 20 years of allowable service.

Annual Annuity determined as for Normal Retirement considering allowable service and salary to actual retirement and reduced by 1/2 of 1% for each month between actual retirement and attainment of age 65 if service is less than 30 years, and between actual retirement and age 62 if service is 30 or more years.

## 12. Special Early Retirement Annuity

After attainment of age 62 and completion of 30 years of allowable service.

Annual Annuity determined as for Normal Retirement considering allowable service and salary to actual retirement without reduction for such early retirement.

## 13. Proportionate annuity

At age 65 or earlier under a mandatory retirement statute or uniformly applied compulsory retirement policy and completion of at least three years but less than 10 years of allowable service.

Annual Annuity determined as for Normal Retirement, considering allowable service and salary to actual retirement.

## 14. Disability Benefit

In the event of total and permanent disability, after completion of 10 years of allowable service or attainment of age 50 and completion of 5 years of allowable service.

Annual Benefit payable to age 65 determined as for Normal Retirement, considering allowable service and salary to date of disablement. Total Benefit is limited to 100% of "Average Salary."

If disability continues to age 65, the disability benefit shall terminate and the person shall be deemed to be on retirement status and may elect to receive the greater of an annuity determined as for Normal Retirement or the disability benefit he was receiving prior to age 65, or he may select an optional annuity.

Any disabilitant attaining age 65 after July 1, 1973 shall have his annuity computed in accordance with the Normal Retirement Annuity formula above.

#### 15. Death Benefit

In event of death of an active member, his accumulated contributions shall be paid to his designated beneficiary with interest thereon at 3 1/2% per annum compounded annually.

In the event of death of a retired annuitant, the excess (if any) of his accumulated contributions not paid out in the way of annuities shall be paid to his designated beneficiary, without interest.

Upon the death of an active member after age 58 and completion of 20 or more years of allowable service or if the member has made application for an annuity or disability benefit and dies prior to commencement of his benefit, the surviving spouse (in lieu of any other survivor benefit) may elect to receive an annuity equal to the 50% joint and survivor annuity the member could have qualified for on the date of his death.

#### 16. Separation Benefit

In event of termination after 10 years of allowable service, a deferred vested annuity payable at age 65, or earlier if otherwise eligible, provided former member does not withdraw his contributions. (Said 10 years of allowable service need not represent PERA coverage only but may be in conjunction with service covered by other Minnesota funds such as those for state employees and teachers and others which have this same provision; deferred annuity is paid by each fund according to the number of years of allowable service in each fund.)

Annual Annuity determined as for Normal Retirement under the provisions of the Plan at date of termination considering allowable service and salary to date of such termination, augmented by interest at 5%, compounded annually from first of the month following separation from service or from July 1, 1971, whichever is later, to the date annuity begins to accrue.

Annual Benefit payable to age 65 determined as for Normal Retirement, considering allowable service and salary to date of disablement. Total Benefit is limited to 100% of "Average Salary."

If disability continues to age 65, the disability benefit shall terminate and the person shall be deemed to be on retirement status and may elect to receive the greater of an annuity determined as for Normal Retirement or the disability benefit he was receiving prior to age 65, or he may select an optional annuity.

Any disabilitant attaining age 65 after July 1, 1973 shall have his annuity computed in accordance with the Normal Retirement Annuity formula above.

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In the event of death of a retired annuitant, the excess (if any) of his accumulated contributions not paid out in the way of annuities shall be paid to his designated beneficiary, without interest.

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Annual Annuity determined as for Normal Retirement under the provisions of the Plan at date of termination considering allowable service and salary to date of such termination, augmented by interest at 5%, compounded annually from first of the month following separation from service or from July 1, 1971, whichever is later, to the date annuity begins to accrue.

All former members shall be eligible to receive a refund of their accumulated contributions without interest for the first three years of membership and thereafter with interest at 3 1/2% compounded annually. (Such elections is in lieu of any other benefits under the Plan.)

17. Increase for Retired Annuitants and Disabilitants who were receiving payments on June 30, 1973

(1) All retired annuitants drawing annuities as of June 30, 1973 shall receive an increase of 25%, payable as follows:

- (a) Those included in the Minnesota Adjustable Fixed Benefit Fund shall have their annuities increased effective July 1, 1973, by the same ratio as the actuarially computed reserves at 3 1/2% interest bears to the actuarially computed reserves at 5% interest. (This increase amounted to 9.72%.)
- (b) Said Annuitants shall receive the remainder of the 25% increase, or 15.28%, effective January 1, 1974.

(2) All disabilitants who were receiving benefits on June 30, 1973, shall receive an increase of 25% effective January 1, 1974.

18. Optional Annuities

A participant may elect to receive an equivalent actuarially reduced annuity in the form of either a 50% or 100% joint and survivor annuity.

19. Expenses

Paid by Association from retirement fund.

20. Actuarial Method

For purpose of reports to the Legislative Commission on Pensions and Retirement, costs for the Plan shall be determined on an "entry-age level normal cost" basis and 5% interest.

PERA VALUATION AS OF JUNE 30, 1976

(General Fund)

The purpose of this memorandum is to discuss the Valuation Report of the Public Employees' Retirement Association, dated November 15, 1975, which was submitted to the Commission in accordance with Chapter 356 of Minnesota Laws 1974. The valuation was made using the entry age normal cost method and assuming 5% interest. The 1976 and 1975 valuation reports were completed by David H. Roenisch of Compensation and Capital, Consulting Actuaries.

This memorandum contains the following:

1. Statistical and Valuation Data
2. Discussion of Valuation Results
3. Conclusion

Although separate discussions of the Basic Group and the Coordinated Group are no longer required, the Report did contain both separate and consolidated information, and all three will be reviewed here.

A. BASIC GROUP

1. Statistical and Valuation Data

Results of the valuation reports as of June 30, 1975 and June 30, 1976 are shown for comparative purposes. Figures are rounded where necessary for simplicity of presentation.

	<u>As of</u> <u>June 30, 1975</u>	<u>As of</u> <u>June 30, 1976</u>
(1) <u>Membership</u>		
Active Members	21,242	20,092
Retired Members	6,613	6,942
Disabled Members	315	366
Survivors of Deceased Members	3,761	3,705
Deferred Annuitants	826	885
(2) <u>Payroll and Annuities Payable</u>		(Millions of Dollars)
Covered Payroll	\$188.2	\$189.9
Annuities Payable (annual)	20.1	22.0

	<u>As of</u> <u>June 30, 1975</u>	<u>As of</u> <u>June 30, 1976</u>
(3) <u>Valuation Balance Sheet</u>	(Millions of Dollars)	
Accrued Liability	\$588.4	\$637.6
Assets	<u>330.3</u>	<u>351.8</u>
Unfunded Accrued Liability (Deficit)	\$258.1	\$285.8
Funding Ratio (Assets/Accrued Liability)	56.1%	55.2%
(4) <u>Normal Cost and Funding Costs</u>		
Normal Cost	13.863%	13.827%
Expenses	<u>0.142</u>	<u>0.148</u>
Normal Cost Plus Expenses	14.005%	13.975%
Normal Cost Plus Expenses	14.005%	13.975%
Interest on Deficit	<u>6.858</u>	<u>7.527</u>
Minimum Contribution	20.863%	21.502%
Normal Cost Plus Expenses	14.005%	13.975%
Amortization by 1997	<u>10.420</u>	<u>11.742</u>
Required Contribution	24.425%	25.717%
(5) <u>Statutory Contributions</u>		
Employee	8.0%	8.0%
Employer Regular	8.0	8.0
Employer Additional	<u>2.5</u>	<u>2.5</u>
Total Contributions	18.5%	18.5%

## 2. Discussion of Valuation Results

The normal cost has changed very little during the year. It should be noted that the statutory regular contributions which total 16% exceed the normal cost plus expenses of 13.975%. On the other hand, the excess in this area plus the employer additional contribution of 2.5% falls short of the required amortization contribution of 11.742%. However, actuarial balance is not required for the Basic Group separately, and this point will be addressed in reviewing the consolidated section of the Report.

The unfunded accrued liability increased by \$27,764,103. The PERA Actuary shows the following items to trace the change in the deficit.

Increases:

Salary Scale Loss	✓ \$28,342,835	
Deficiency in Contribution	✓ <u>4,446,669</u>	
Total Increases		\$32,789,504

Decreases:

Mortality Gain - Retired Lives	\$ 2,982,672	
Excess Interest	✓ 1,571,608	
Other Actuarial Gains	<u>471,121</u>	
Total Decreases		<u>\$ 5,025,401</u>
Net Increase		\$27,764,103

## B. COORDINATED GROUP

### 1. Statistical and Valuation Data

	<u>As of</u> <u>June 30, 1975</u>	<u>As of</u> <u>June 30, 1976</u>
<b>(1) <u>Membership</u></b>		
Active Members	59,898	63,706
Retired Members	1,261	1,505
Disabled Members	81	92
Survivors of Deceased Members	7	25
Deferred Annuitants	85	109
<b>(2) <u>Payroll and Annuities Payable</u> (Millions of Dollars)</b>		
Covered Payroll	\$394.8	\$467.7
Annuities Payable (annual)	1.9	2.4
<b>(3) <u>Valuation Balance Sheet</u> (Millions of Dollars)</b>		
Accrued Liability	\$136.7	\$178.5
Assets	<u>118.8</u>	<u>159.4</u>
Unfunded Accrued Liability (Deficit)	\$ 17.9	\$ 19.1
Funding Ratio (Assets/Accrued Liability)	86.9%	89.3%
<b>(4) <u>Normal Cost and Funding Costs</u></b>		
Normal Cost	7.182%	7.169%
Expenses	0.142	0.148
Normal Cost Plus Expenses	<u>7.324%</u>	<u>7.317%</u>
Normal Cost Plus Expenses	7.324%	7.317%
Interest on Deficit	<u>0.227</u>	<u>0.204</u>
Minimum Contribution	7.551%	7.521%
Normal Cost Plus Expenses	7.324%	7.317%
Amortization by 1997	<u>0.344</u>	<u>0.335</u>
Required Contribution	7.668%	7.652%
<b>(5) <u>Statutory Contributions</u></b>		
Employee	4.0%	4.0%
Employer Regular	4.0	4.0
Employer Additional	<u>1.5</u>	<u>1.5</u>
Total Contributions	9.5%	9.5%

## 2. Discussion of Valuation Results

The normal cost and other cost figures changed very little during the year with the total showing a slight increase in the margin between the statutory support and the required contribution. However, as will be shown in the consolidated section of the Report, this margin is not sufficient to cover the deficiency for the Basic Group.

The unfunded accrued liability for the Coordinated Group increased by \$1,181,742 during the year. The PERA Actuary shows the following breakdown:

### Increases:

Salary Scale Loss	<u>↓ \$13,724,293</u>	
Total Increases		\$13,724,293

### Decreases:

Amortization Contribution	✓ \$11,162,955	
Excess Interest	↓ 863,837	
Mortality Gain - Retired Lives	456,154	
Other Gains	<u>59,605</u>	
Total Decreases		<u>12,542,551</u>
Net Increase		\$ 1,181,742

### C. CONSOLIDATED REPORT

Since the Basic Report shows a deficiency in financing and the Coordinated Report shows a surplus, the question arises as to whether the System as a whole is in balance. This question can be answered best by comparing the total requirement with the support either in percentages of payroll or in dollars. If the former basis is used, then the Statutory support is obtained by weighing the percentage contributions by the ratio of each group's payroll to the total.

The results as a percentage of payroll follow:

	<u>1975</u>	<u>1976</u>
Required Support		
Normal Cost	9.356%	9.143%
Expenses	0.142	0.148
Amortization	<u>3.597</u>	<u>3.617</u>
Total	13.095%	12.908%
Statutory Support		
Employee	5.291%	5.155%
Employer Regular	5.291	5.155
Employer Additional	<u>1.823</u>	<u>1.789</u>
Total	12.405%	12.099%
Deficiency	0.690%	0.809%

The results in dollars follow:

	<u>1975</u>	<u>1976</u>
Required Support		
Normal Cost Plus Expense	\$55,265,068	\$60,760,460
Amortization	<u>20,967,662</u>	<u>23,784,243</u>
Total	\$76,232,730	\$84,544,703
Statutory Support		
Employee	\$30,843,851	\$33,900,169
Employer Regular	<u>30,843,851</u>	<u>33,900,169</u>
Sub Total	\$61,687,702	\$67,800,338
Employer Additional	<u>10,625,524</u>	<u>11,763,091</u>
Total	\$72,313,226	\$79,563,429
Deficiency	\$ 3,919,504	\$4,981,274

In both years, the total statutory support appears adequate to pay normal cost and retire the deficit by about 2008 or 2009.

## 5. Conclusion

The Report filed by PERA conforms with the statutes. Under the present laws and standards, the financing for the Coordinated Group appears to be more than adequate but that for the Basic Group is not sufficient to retire the Basic deficit by 1997. When PERA-General Employees is viewed as one system, the financing falls short of normal cost plus amortization by 1997, and during the past three years, this deficiency has increased from \$3,602,212 to \$4,981,274.

Franklin C. Smith  
Associate, Society of Actuaries  
Stennes & Associates, Inc.  
Commission Actuaries

PERA VALUATION AS OF JUNE 30, 1976

(Police and Fire Fund)

The purpose of this memorandum is to discuss the valuation report of the PERA Police and Fire Fund, dated November 15, 1976, which was submitted to the Commission in accordance with Chapter 356 of Minnesota Laws 1974. The valuation was made using the entry age normal cost method and assuming 5% interest. The 1976 and 1975 valuation reports were completed by Davis H. Roenisch of Compensation and Capital, Consulting Actuaries.

This memorandum contains the following:

1. Statistical and Valuation Date
2. Discussion of Valuation Results
3. Conclusion

1. Statistical and Valuation Data

Results of the valuation report are shown below. Figures are rounded where necessary for simplicity of presentation.

	<u>As of</u> <u>June 30, 1975</u>	<u>As of</u> <u>June 30, 1976</u>
(1) <u>Membership</u>		
Active Members	3,690	3,800
Retired Members	331	362
Disabled Members	12	15
Survivors of Deceased Members	241	238
Deferred Annuitants	22	183
(2) <u>Payroll and Annuities Payable</u>		
Covered Payroll	\$40,849,878	\$46,848,679
Annuities Payable (annual)	1,387,081	1,555,374
(3) <u>Valuation Balance Sheet</u>		(Millions of Dollars)
Accrued Liability	\$67.6	\$87.1
Assets	<u>56.1</u>	<u>67.0</u>
Unfunded Accrued Liability (Deficit)	\$11.5	\$20.1
Funding Ratio (Assets/Accrued Liability)	82.9%	76.9%

	<u>As of</u> <u>June 30, 1975</u>	<u>As of</u> <u>June 30, 1976</u>
<b>(4) <u>Normal Costs and Funding Costs</u></b>		
Normal Cost	15.356%	16.364%
Expenses	<u>.095</u>	<u>.092</u>
Normal Cost Plus Expenses	15.451%	16.456%
Normal Cost Plus Expenses	15.451%	16.456%
Interest on Deficit	<u>1.413</u>	<u>2.148</u>
Minimum Contribution	16.864%	18.604%
Normal Cost Plus Expenses	15.451%	16.456%
Amortization by 1997	<u>2.146</u>	<u>3.351</u>
Required Contribution	17.597%	19.807%
<b>(5) <u>Statutory Contributions</u></b>		
Employee	8.0%	8.0%
Employer Regular	12.0	12.0
Employer Additional	<u>0.0</u>	<u>0.0</u>
Total	20.0%	20.0%

## 2. Discussion of Valuation Results

The substantial increases in the cost figures were produced by a change in the assumed average age at retirement from age 62 to age 60. The experience study which accompanied the 1975 report indicated that the previous assumption was no longer appropriate.

The deficit increased from \$11,541,019 to \$20,127,969 which is an addition of \$8,586,950. The change in the assumed average retirement age added \$6,657,841, and the complete analysis follows:

### Increases:

Change in Assumed Average Retirement Age	\$6,657,841	
Salary Scale Loss	<u>4,695,857</u>	
Total Increase		\$11,353,698

### Decreases:

Amortization Contribution	\$2,134,271	
Excess Interest	441,571	
Mortality Gain - Retired Lives	<u>190,906</u>	
Total Decrease		<u>\$ 2,766,748</u>

Net Increase		\$ 8,586,950
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### 3. Conclusion

The Report filed by PERA relative to the Policy and Fire Fund conforms with the requirements of the various statutes.

With the change in the assumed average retirement age, the statutory contribution still covers the required support, but there is almost no margin.

Attention is also directed to the fact that the total financing of this plan is shared by Employees and Employers.

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Commission Actuaries