

1974 ACTUARIAL REPORT

for

BLOOMINGTON FIRE DEPARTMENT
RELIEF ASSOCIATION

Hewitt Associates

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Section 1. A Brief Summary of the Census Data

The data on which this actuarial valuation is based is summarized below. Information on each member and beneficiary included in the valuation is presented in Appendix D.

Active Members

Number	112
Average Age	34.2
Average Service	5.9
Aggregate Salary (on Which Retirement Benefits are Based)	\$1,470,336
Employee Contributions for Past Plan Year	\$ 14,748
Prospective Annual Retirement Annuities	\$ 957,544

Other Members

	<u>Number</u>	<u>Annual Annuity Payments</u>
Retired Members	19	\$80,256
Disabled Members	1	4,224
Widows of Deceased Members	3	9,504
Children of Deceased Members	- 23	93,984 -0-
Deferred Annuitant Members	1	4,224*

*Prospective Retirement Annuities

Section 2. The Actuarial Valuation

The results of the valuation on December 31, 1973 are shown below.

1. Accrued Liability	\$4,190,975
2. Assets	<u>1,218,054</u>
3. Unfunded Accrued Liability (Prior Service Deficit)	\$2,972,921
4. Normal Cost for Current Year	\$ 359,518
5. Normal Cost as a Level Percentage of Current and Projected Future Participating Payroll	24.451%
6. Current Participating Payroll Used for Valuation	\$1,470,336

The actuarial assumptions will be found in Appendix A.

Section 3. Contributions

The contributions outlined below are the support rates required on an annual basis to meet the level of funding indicated. The amounts shown are based on the payroll used in the current valuation. The Normal Cost portion has been determined as a level percent of the payroll used in determining benefits and will fluctuate in dollar amounts in future years as the participating payroll fluctuates. The support rates shown assume payment as of the valuation date. The total contribution is that which would be required under the Guidelines Bill if there were no transition rules.

Contribution to Pay Annual Cost and Interest on Unfunded Accrued Liability

1. Normal Cost for Current Year	\$359,518
2. Interest Payment on Unfunded Accrued Liability (Prior Service Deficit)	<u>141,568</u>
3. Total Contribution	\$501,086

Section 4. The Preparation of the Report

This report has been prepared in accordance with generally accepted actuarial principles and practices. This actuarial survey was made in accordance with the requirements of Chapter 729 of Minnesota Laws 1967, as amended. The usual care has been exercised in making the calculations and presenting the results. The contents of this report are, therefore, believed to be a correct appraisal of the state of affairs of the Plan.

Respectfully submitted,

HEWITT ASSOCIATES

Rodger Patrick

Rodger Patrick, ASA

APPENDIX A

ACTUARIAL ASSUMPTIONS

Mortality Rates

The mortality rates used are based on the United States Life Table, 1959-61, White Males and White Females. These tables were used for both active and retired members and for survivors.

Withdrawal Rates

The rate of withdrawal of .030 at age 20 decreasing uniformly to zero at age 50 with no withdrawal after that age.

Disability Rates

These rates are based on "Intermediate Rates of Disablement" that were used by the Social Security Administration in their 1962 cost estimating procedures.

Retirement Age

The assumed average retirement age for this fund is age 53.

Salary Scale

A $3\frac{1}{8}\%$ annual increase in the salary on which retirement benefits are based has been assumed.

Interest Rate

Five percent compounded annually.

Actuarial Method

The Entry Age Normal Cost Method has been used to determine the Unfunded Prior Service Cost. The Normal Cost has been determined as a level percentage of current and future participating payroll on which the retirement benefits are based.

APPENDIX B

SUMMARY OF PLAN PROVISIONS

Requirements for Benefits

Retirement

Twenty years of service and 50 years of age.

Disability

In Line of Duty: None.

Not in Line of Duty: None.

Vesting

Twenty years of service. Benefit is deferred to the attainment of age 50.

Amount of Benefit

Retirement

Benefit When Minimum Requirements Are Met: 33-1/3% of the last three years' average pay of a Police Patrolman (escalator).

Disability

In Line of Duty: 33-1/3% of last three years' average salary of a Police Patrolman.

Not in Line of Duty: Same as for In Line of Duty.

Vesting

Same as for Retirement benefit.

Widow's Benefit

Twenty-five percent of last three years' average salary of a Police Patrolman. Maximum family benefit is 33-1/3% of the last three years' average salary of a Police Patrolman.

Children of Deceased Members

Four percent of the last three years' average salary of a Police Patrolman.

Other Death Benefits

\$500 funeral benefit.

Salary Basis for Benefits

Last three years' average salary of a Police Patrolman. For the year 1973, this average was \$12,672 per year.

Unit Value

Not applicable.

Member Contribution

\$144 per year payable semi-annually.

APPENDIX C

INCOME OF FUND DURING 1972

Members' Contributions	\$ 14,748.00
Taxes or Public Funds	250,676.22
Other (State of Minnesota, 2%)	78,303.92
Total Contributions	343,728.14
Investment Income	67,962.10

APPENDIX D
CENSUS DATA

BLOOMINGTON FIRE DEPARTMENT RELIEF ASSOCIATION

ACTIVE MEMBERS CURRENT SALARY IS THE SALARY ON WHICH
RETIREMENT BENEFITS ARE BASED

CODE NUMBER	AGE	SERVICE	CURRENT SALARY	PROSP ANNUAL ANNUITY
11	50	17	13128	4854
2	49	15	13128	5025
16	48	14	13128	5200
9	47	13	13128	5379
3	46	14	13128	5567
18	46	13	13128	5567
27	46	13	13128	5567
4	45	15	13128	5764
24	44	13	13128	5966
10	43	14	13128	6176
17	43	11	13128	6176
12	42	14	13128	6390
13	42	14	13128	6390
14	42	13	13128	6390
20	42	14	13128	6390
21	42	14	13128	6390
39	42	7	13128	6390
33	41	10	13128	6613
43	41	7	13128	6613
6	40	5	13128	6845
31	40	10	13128	6845
63	39	5	13128	7086
25	38	13	13128	7331
47	38	7	13128	7331

BLOOMINGTON FIRE DEPARTMENT RELIEF ASSOCIATION

ACTIVE MEMBERS CURRENT SALARY IS THE SALARY ON WHICH
RETIREMENT BENEFITS ARE BASED

CODE NUMBER	AGE	SERVICE	CURRENT SALARY	PROSP ANNUAL ANNUITY
58	38	6	13128	7331
64	38	5	13128	7331
73	38	3	13128	7331
82	38	3	13128	7331
83	38	3	13128	7331
84	38	3	13128	7331
8	37	12	13128	7590
28	37	12	13128	7590
42	37	14	13128	7590
48	37	6	13128	7590
49	37	14	13128	7590
51	37	6	13128	7590
92	37	2	13128	7590
1	36	7	13128	7857
23	36	14	13128	7857
34	36	2	13128	7857
55	36	6	13128	7857
57	36	5	13128	7857
74	36	3	13128	7857
19	35	6	13128	8128
30	35	10	13128	8128
35	35	9	13128	8128
38	35	7	13128	8128
44	35	7	13128	8128

BLOOMINGTON FIRE DEPARTMENT RELIEF ASSOCIATION

ACTIVE MEMBERS CURRENT SALARY IS THE SALARY ON WHICH
RETIREMENT BENEFITS ARE BASED

CODE NUMBER	AGE	SERVICE	CURRENT SALARY	PROSP ANNUAL ANNUITY
45	35	7	13128	8128
50	35	6	13128	8128
5	34	9	13128	8417
29	34	4	13128	8417
37	34	8	13128	8417
53	34	5	13128	8417
66	34	5	13128	8417
104	34	1	13128	8417
110	34	0	13128	8417
112	34	0	13128	8417
15	33	9	13128	8710
26	33	1	13128	8710
61	33	5	13128	8710
69	33	4	13128	8710
70	33	4	13128	8710
71	33	4	13128	8710
79	33	3	13128	8710
93	33	2	13128	8710
7	32	0	13128	9012
32	32	7	13128	9012
46	32	7	13128	9012
52	32	6	13128	9012
54	32	6	13128	9012
65	32	5	13128	9012

BLOOMINGTON FIRE DEPARTMENT RELIEF ASSOCIATION

ACTIVE MEMBERS CURRENT SALARY IS THE SALARY ON WHICH
RETIREMENT BENEFITS ARE BASED

CODE NUMBER	AGE	SERVICE	CURRENT SALARY	PROSP ANNUAL ANNUITY
67	32	4	13128	9012
68	32	4	13128	9012
85	32	3	13128	9012
95	32	2	13128	9012
98	32	1	13128	9012
101	32	1	13128	9012
22	31	5	13128	9332
41	31	7	13128	9332
59	31	4	13128	9332
75	31	3	13128	9332
76	31	3	13128	9332
87	31	1	13128	9332
60	30	5	13128	9655
80	30	3	13128	9655
88	30	3	13128	9655
91	30	2	13128	9655
105	30	1	13128	9655
78	29	2	13128	9992
94	29	2	13128	9992
99	29	1	13128	9992
103	29	1	13128	9992
36	28	4	13128	10342
40	28	7	13128	10342
77	27	3	13128	10706

BLOOMINGTON FIRE DEPARTMENT RELIEF ASSOCIATION

ACTIVE MEMBERS CURRENT SALARY IS THE SALARY ON WHICH
RETIREMENT BENEFITS ARE BASED

CODE NUMBER	AGE	SERVICE	CURRENT SALARY	PROSP ANNUAL ANNUITY
81	27	3	13128	10706
90	27	2	13128	10706
97	27	1	13128	10706
106	27	1	13128	10706
56	26	5	13128	11082
62	26	5	13128	11082
100	26	0	13128	11082
109	26	0	13128	11082
72	25	2	13128	11467
89	25	2	13128	11467
96	24	2	13128	11870
108	23	0	13128	12286
107	22	0	13128	12715
86	21	2	13128	13161
102	20	1	13128	13621
111	20	0	13128	13621

BLOOMINGTON FIRE DEPARTMENT RELIEF ASSOCIATION
RETIRED MEMBERS

CODE NUMBER	AGE	TYPE ANNUITY	ANNUAL ANNUITY
1	67	ESCALATOR	4224.00
2	64	ESCALATOR	4224.00
3	62	ESCALATOR	4224.00
4	62	ESCALATOR	4224.00
5	60	ESCALATOR	4224.00
6	60	ESCALATOR	4224.00
7	59	ESCALATOR	4224.00
8	57	ESCALATOR	4224.00
9	56	ESCALATOR	4224.00
10	56	ESCALATOR	4224.00
11	55	ESCALATOR	4224.00
12	55	ESCALATOR	4224.00
13	55	ESCALATOR	4224.00
14	54	ESCALATOR	4224.00
15	53	ESCALATOR	4224.00
16	53	ESCALATOR	4224.00
17	52	ESCALATOR	4224.00
18	51	ESCALATOR	4224.00
19	50	ESCALATOR	4224.00

BLOOMINGTON FIRE DEPARTMENT RELIEF ASSOCIATION
DISABLED MEMBERS

CODE NUMBER	AGE	TYPE ANNUITY	ANNUAL ANNUITY
1	36	ESCALATOR	4224.00

BLOOMINGTON FIRE DEPARTMENT RELIEF ASSOCIATION
WIDOWS OF DECEASED MEMBERS

CODE NUMBER	AGE	TYPE ANNUITY	ANNUAL ANNUITY
1	68	ESCALATOR	3168.00
2	63	ESCALATOR	3168.00
3	62	ESCALATOR	3168.00

BLOOMINGTON FIRE DEPARTMENT RELIEF ASSOCIATION
TERMINATED MEMBERS WITH DEFERRED VESTED BENEFITS

CODE NUMBER	AGE	TYPE ANNUITY	ANNUAL ANNUITY
1	44	ESCALATOR	4224.00