

1968 ACTUARIAL REPORT  
for  
BLOOMINGTON FIRE DEPARTMENT  
RELIEF ASSOCIATION

June, 1968

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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 B.

Active Members

Number	58
Aggregate Salary (on which retirement benefits are based)	\$442,656
Employee Contributions for Past Plan Year	\$ 8,861
Prospective Annual Retirement Annuities	\$246,715

Other Members

	<u>Number</u>	<u>Annual Annuity Payments</u>
Retired Members	10	\$ 25,440
Disabled Members	1	2,544
Widows of Deceased Members	2	3,744
Children of Deceased Members	-	-
Deferred Annuitant Members	-	- *

\*Prospective Retirement Annuities

Section 2. The Actuarial Valuation

The results of the valuation on December 31, 1967, are shown below.

1.	Accrued Liability	\$2,016,957
2.	Assets	<u>327,741</u>
3.	Unfunded Accrued Liability (Prior Service Deficit)	\$1,689,216
4.	Normal Cost for Current Year	\$ 196,862
5.	Normal Cost as a Level Percentage of Current and Projected Future Participating Payroll	44.473%
6.	Current Participating Payroll Used for Valuation	\$ 442,656

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.

Contribution to Amortize Unfunded Accrued Liability (Prior Service Deficit) by 2007

1.	Normal Cost for Current Year	\$196,862
2.	Amortization Payment on Unfunded Accrued Liability (Prior Service Deficit)	<u>70,950</u>
3.	Total Contribution	\$267,812

Section 4. The Preparation of the Report

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

Respectfully submitted,

HEWITT ASSOCIATES



Rodger R. Patrick, A.S.A.

June 1968

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% annual increase in the salary on which retirement benefits are based has been assumed.

Interest Rate

Three per cent 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 CSUMMARY OF PLAN PROVISIONSRequirements for Benefits

<u>Retirement</u>	Twenty years of Service and 50 years of age.
<u>Disability</u>	<u>In Line of Duty:</u> None. <u>Not in Line of Duty:</u> None.
<u>Vesting</u>	Twenty years of Service. Benefit is deferred to the attainment of age 50.

Amount of Benefit

<u>Retirement</u>	<u>Benefit when Minimum Requirements are Met:</u> 30% of the last three years' average pay of a Police Patrolman. (escalator)  <u>Additional Benefits for Service Beyond Minimum Requirements:</u> Two-thirds of 1% for each year of Service in excess of 20 up to a maximum additional 3-1/3%.
<u>Disability</u>	<u>In Line of Duty:</u> 33-1/3% of last three years' average salary of a Police Patrolman.  <u>Not in Line of Duty:</u> Same as for In Line of Duty.
<u>Vesting</u>	Same as for Retirement benefit.
<u>Widow's Benefit</u>	Twenty-five per cent 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.
<u>Children of Deceased Members</u>	Four per cent of the last three years' average salary of a Police Patrolman.



APPENDIX CSUMMARY OF PLAN PROVISIONS  
(Continued)

<u>Other Death Benefits</u>	\$500 funeral benefit.
<u>Salary Basis for Benefits</u>	Last three years' average salary of a Police Patrolman. For the year 1967, this average was \$7, 632 per year.
<u>Unit Value</u>	Not applicable.
<u>Member Contribution</u>	\$144 per year payable semi-annually.

APPENDIX DINCOME OF FUND DURING 1967

Member's Contributions	\$ 8,861.00
Taxes or Public Funds	\$22,411.34
Other	\$ -
Total Contributions	\$31,272.34
Investment Income	\$19,800.27

CENSUS DATA - BLOOMINGTON FIRE DEPARTMENT  
 ACTIVE MEMBERS - CURRENT SALARY IS THE SALARY ON WHICH  
 RETIREMENT BENEFITS ARE BASED

CODE NUMBER	AGE	SERVICE	SEX	CURRENT SALARY	PROSP. ANNUAL ANNUITY	CONT. FOR 1967
28	51	18	M	7632	2358	144.00
1	49	20	M	7632	2670	144.00
46	49	19	M	7632	2614	144.00
49	49	20	M	7632	2807	144.00
11	48	20	M	7632	2948	144.00
15	47	20	M	7632	2948	144.00
13	47	20	M	7632	3038	144.00
50	45	20	M	7632	3223	144.00
39	44	10	M	7632	2988	144.00
30	44	14	M	7632	3187	144.00
51	42	9	M	7632	3077	144.00
16	42	8	M	7632	3169	144.00
40	40	7	M	7632	3265	144.00
34	40	6	M	7632	3361	144.00
33	40	8	M	7632	3436	144.00
14	39	8	M	7632	3436	144.00
48	39	9	M	7632	3695	144.00
52	38	19	M	7632	3849	144.00
22	38	4	M	7632	3567	144.00
45	37	7	M	7632	3726	144.00
2	36	8	M	7632	4002	144.00
29	36	5	M	7632	3756	144.00
12	36	8	M	7632	4206	144.00
23	36	1	M	7632	3785	144.00
26	36	8	M	7632	4206	144.00
10	36	9	M	7632	4206	144.00
3	36	6	M	7632	4037	144.00
25	35	8	M	7632	4206	144.00
17	35	1	M	7632	3897	144.00
38	34	4	M	7632	4070	144.00
54	34	1	M	7632	4014	108.00
9	32	5	M	7632	4595	144.00
32	32	5	M	7632	4732	144.00
24	31	1	M	7632	4448	108.00
58	31	2	M	7632	4543	144.00
4	31	6	M	7632	4875	144.00
47	31	5	M	7632	4875	144.00
43	30	1	M	7632	4680	120.00
57	30	0	M	7632	4582	72.00
41	30	1	M	7632	4680	96.00
6	30	11	M	7632	5022	144.00
56	30	8	M	7632	5022	144.00
18	30	2	M	7632	5022	120.00
20	30	1	M	7632	4922	120.00
35	29	1	M	7632	5172	108.00
42	28	1	M	7632	5172	96.00
53	28	3	M	7632	5172	144.00
8	28	2	M	7632	5172	120.00
44	28	1	M	7632	5172	108.00
37	28	1	M	7632	5327	144.00

CENSUS DATA - BLOOMINGTON FIRE DEPARTMENT  
ACTIVE MEMBERS - CURRENT SALARY IS THE SALARY ON WHICH  
RETIREMENT BENEFITS ARE BASED

CODE NUMBER	AGE	SERVICE	SEX	CURRENT SALARY	PROSP. ANNUAL ANNUITY	CONT. FOR 1967
55	27	2	M	7632	5327	144.00
31	27	1	M	7632	5488	144.00
21	26	3	M	7632	5488	144.00
5	25	1	M	7632	5651	144.00
7	25	1	M	7632	5651	108.00
19	25	1	M	7632	5821	144.00
36	23	1	M	7632	5997	144.00
27	22	1	M	7632	6360	144.00

CENSUS DATA - BLOOMINGTON FIRE DEPARTMENT  
RETIRED MEMBERS

CODE NUMBER	AGE	TYPE ANNUITY	SEX	ANNUAL ANNUITY
7	64	ESCALATOR	M	2544.00
1	61	ESCALATOR	M	2544.00
6	58	ESCALATOR	M	2544.00
4	56	ESCALATOR	M	2544.00
5	56	ESCALATOR	M	2544.00
2	54	ESCALATOR	M	2544.00
3	54	ESCALATOR	M	2544.00
8	53	ESCALATOR	M	2544.00
9	50	ESCALATOR	M	2544.00
10	50	ESCALATOR	M	2544.00

CENSUS DATA - BLOOMINGTON FIRE DEPARTMENT  
DISABLED MEMBERS

CODE NUMBER	AGE	TYPE ANNUITY	SEX	ANNUAL ANNUITY
1	46	ESCALATOR	M	2544.00

CENSUS DATA - BLOOMINGTON FIRE DEPARTMENT  
WIDOWS OF DECEASED MEMBERS

CODE NUMBER	AGE	TYPE ANNUITY	SEX	ANNUAL ANNUITY
1	57	ESCALATOR	F	1872.00
2	56	ESCALATOR	F	1872.00