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1981 ACTUARIAL REPORT

for

WINNEBAGO FIREMEN'S RELIEF ASSOCIATION



#### TABLE OF CONTENTS

Section		Page
1	A Brief Summary of the Census Data	1
2	The Actuarial Valuation	2
3	Contributions	3
4	Income of Fund During 1980	4
5	The Preparation of the Report	5

# Appendix

- A Actuarial Assumptions
- B Summary of Plan Provisions
- C Census Data

## Section 1. A Brief Summary of the Census Data

The data on which this actuarial valuation is based is summarized below.

## Members Not Yet Receiving Benefits

	Number	Prospective Retirement Annuities
Active Members	22	\$14,300
Deferred Annuitant Members	Min 1889	-

#### Members Currently Receiving Benefits

	Number	Annual Annuity Payments
Retired Members	13	\$ 8,450
Disabled Members		
Widows of Deceased Members	<b>-</b>	
Children of Deceased Members	end two	una mas

#### Section 2. The Actuarial Valuation

The results of the valuation on December 31, 1980, are shown below.

1.	Accrued Liability	\$122,004
2.	Special Fund Assets	75,837
3.	Unfunded Accrued Liability (Prior Service Deficit)	\$ 46,167
4.	Normal Cost	\$ 3,020

The actuarial assumptions used in determining these results will be found in Appendix A.

#### Explanation of Actuarial Terminology

Accrued Liability: The present value of benefits earned for service prior to the valuation date under the actuarial method used. The actuarial method used spreads the cost of total expected benefits equally over each member's anticipated period of active membership. The dollar amount shown as the Accrued Liability represents the number of dollars that should be in the Special Fund to provide for benefits already earned.

Unfunded Accrued Liability (Prior Service Deficit): This amount is the difference between the Accrued Liability (the amount that should be in the Special Fund to fully provide for benefits already earned) and the actual amount of Special Fund assets.

Normal Cost: The amount necessary, according to the actuarial method used, to pay for benefits earned in 1981 (and each future year until another actuarial valuation is completed).



#### Section 3. Contributions

The Volunteer Firefighter's Relief Association Financing Guidelines Act of 1971 (Chapter 261, as amended by Chapter 509 of Minnesota Statutes 1980) specifies minimum support rates required on an annual basis. The minimum support rates from the municipality and state aid are determined as the amount required to meet the Normal Cost plus amortizing any current unfunded accrued liability by the established date for full funding. This total contribution is shown below.

The contribution required by the municipality for any year is determined by taking Item 4 below, and subtracting one year's estimated state aid expected from the state pursuant to Minnesota Statutes, Chapter 69.

# Contribution to Amortize Unfunded Accrued Liability (Prior Service Deficit) by the Date for Full Funding, December 31, 2000.

1.	Normal Cost	\$3,020	
2.	Amortization Contribution on Unfunded Accrued Liability prior to any applicable change.	703	
3.	Amortization Contribution on Unfunded Accrued Liability attributed to any applicable change.	2,869	
4.	Total Contribution Required, if made 1/1/81 (including State Aid)	\$6,592	
5.	Interest at 5% to 12/31/81	330	
6.	Total Contribution, if made 12/31/81	\$6,922	

# Section 4. Income of Fund During 1980

Members' Contributions	\$ 72
Contributions by Municipality	1,876
State Aid	6,412
Other	0
Total Contributions	\$8,360
Investment Income	\$4,914

#### Section 5. 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 our understanding of the requirements of the Volunteer Firefighter's Relief Association Financing Guidelines Act of 1971 (Chapter 261, as amended by Chapter 509 of Minnesota Statutes 1980). 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

Eric R. Cerling

Eric R. Cerling Fellow, Society of Actuaries

# APPENDIX A ACTUARIAL ASSUMPTIONS



#### 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 active members, retired members and for survivors.

Withdrawal Rates

The rate of withdrawal of .060 at age 20 decreasing uniformly to zero at age 45 with no withdrawal after that age.

Disability Rates

The expected Normal Cost of any short term weekly income benefit has been determined using claim statistics based on rates developed by the New York State Employees' Retirement System, and the resulting cost has been included in the Normal Cost shown on page 2.

Retirement Age

Members are assumed to retire after attaining age 53 and 20 years of service.

Interest Rate

Five percent compounded annually.

Actuarial Method

The Entry Age Normal Cost Method has been used with the Normal Cost determined as a level amount each year from the date of joining the Department to the assumed retirement age.

# APPENDIX B SUMMARY OF PLAN PROVISIONS

#### SUMMARY OF PLAN PROVISIONS

Retirement Benefit

Requirements Twenty years of service and 50

years of age.

Amount Benefit When Minimum Requirements

Are Met: \$650 per year.

Additional Benefits For Service

Beyond Minimum Requirements: None

Vesting Benefit

Requirements Twenty years of service.

Amount Same as Retirement Benefit.

Disability Benefit

Requirements Not applicable.

Amount None.

Lump Sum Death Benefit

Requirements Not applicable.

Amount None.

APPENDIX C

CENSUS DATA

# WINNEBAGO FIREMEN'S RELIEF ASSOCIATION

### ACTIVE MEMBERS

Code Number	Age Nearest <u>Birthday</u>	Completed Years of Service	Projected Annual Annuity
1	40	12	\$650
2	32	0	\$650
3	46	21	\$650
4	39	7	\$650
5	53	19	\$650
6	37	6	\$650
7	48	13	\$650
8	34	2	\$650
9	34	7	\$650
10	32	6	\$650
11	36	6	\$650
12	26	3	\$650
13	22	0	\$650
14	43	12	\$650
15	37	8	\$650
16	47	20	\$650
17	23	1	\$650
18	29	5	\$650
19	39	4	\$650
20	28	1	\$650
21	37	3	\$650
22	29	1	\$650

### WINNEBAGO FIREMEN'S RELIEF ASSOCIATION

#### RETIRED MEMBERS

Code Number	Age Nearest Birthday	Annual Annuity
1	81	\$650
2	79	\$650
3	62	\$650
4	62	\$650
5	61	\$650
6	60	\$650
7	57	\$650
8	57	\$650
9	56	\$650
10	56	\$650
11	56	\$650
12	54	\$650
13	53	\$650



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