

1984 ACTUARIAL REPORT AND  
EXPERIENCE STUDY

for

Buhl Policemen's  
Relief Association



**Hewitt Associates**

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SECTION 1. A BRIEF SUMMARY OF THE CENSUS DATA

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SECTION 1. A BRIEF SUMMARY OF THE CENSUS DATA

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

Members Not Yet Receiving Benefits

	<u>Number</u>	<u>Prospective Retirement Annuities</u>
Active Members	2	\$29,376.00
Deferred Annuitant Members	0	--

Members Currently Receiving Benefits

	<u>Number</u>	<u>Annual Annuity Payments</u>
Retired Members	0	--
Disabled Members	0	--
Widows of Deceased Members	1	\$7,005.24
Children of Deceased Members	0	--



## SECTION 2. THE ACTUARIAL VALUATION

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## SECTION 2. THE ACTUARIAL VALUATION

The results of the valuation on January 1, 1984, are shown below.

1. Accrued Liability	\$389,853
2. Special Fund Assets	<u>351,733</u>
3. Unfunded Accrued Liability (Prior Service Deficit)	\$ 38,120
4. Normal Cost for Current Year	\$ 11,758
5. Normal Cost as a Level Percentage of Current and Projected Future Participating Payroll	28.67%
6. Current Participating Payroll Used for Valuation	\$ 41,018

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

### Explanation of Actuarial Terminology

- **Accrued Liability:** The 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 1984 (and each future year until another actuarial valuation is completed).



### SECTION 3. CONTRIBUTION

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The Police and Firefighters' Relief Association Guidelines Act of 1969, as amended by Chapter 224 of Minnesota Statutes 1981, 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 amortize the unfunded accrued liability by December 31, 2010. This total financial requirement is shown below.

The contribution required by the municipality for any year is determined by taking Item 3 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 December 31, 2010

1. Normal Cost	\$11,758
2. Amortization Payment on Unfunded Accrued Liability (Prior Service Deficit)	<u>2,479</u>
4. Total Financial Requirement (including State Aid)	\$14,237

SECTION 4. INCOME OF FUND DURING 1983

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SECTION 4. INCOME OF FUND DURING 1983

Members' Contributions	\$ 3,258.45
Contributions by Municipality	3,323.32
State Aid*	10,791.39
Other	<u>1,353.14</u>
Total Contributions	\$18,726.30
Investment Income	\$27,754.13

\*To be made in January, 1984.



SECTION 5. EXPERIENCE OF THE PLAN

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## SECTION 5. EXPERIENCE OF THE PLAN

Since the previous valuation of the Plan, the Unfunded Accrued Liability has changed as follows:

Unfunded Accrued Liability, 1/1/83	\$ (46,089)
Normal Cost	7,441
Interest on the above	(1,932)
Contributions With Interest	<u>18,807</u>
Expected Unfunded Accrued Liability, 1/1/84, before plan change	\$ (59,387)
Actual Unfunded Accrued Liability, 1/1/84, before plan change	<u>(76,696)</u>
Actuarial Gain	\$ 17,309

The major cause of the actuarial gain was an asset gain of about \$17,000. There was also a pay loss of over \$15,000 due to larger than expected increases. This was offset by partial release of inactive liability resulting from a retiree death with a small benefit payable to the surviving spouse. There was also a small loss due to fewer terminations than expected. The plan change increased the unfunded accrued liability by about \$114,800.

The contribution for 1984 is \$14,237.

The average entry age of all active employees is 27.5.

There is one new surviving spouse receiving benefits.

## SECTION 6. THE PREPARATION OF THE REPORT

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## SECTION 6. THE PREPARATION OF THE REPORT

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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 Police and Firefighter's Relief Association Guidelines Act of 1969, as amended by Chapter 224, Laws of Minnesota 1981. 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



Michael M. C. Sze  
Fellow, Society of Actuaries



APPENDIX A - ACTUARIAL ASSUMPTIONS

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## ACTUARIAL ASSUMPTIONS

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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 is .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 disability 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 58 and 20 years of service.
Salary Scale	A 3-1/2% 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 Accrued Liability. 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

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## SUMMARY OF PLAN PROVISIONS

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### Requirements for Benefits

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

### Amount of Benefit

Retirement	<u>Benefit When Minimum Requirements are Met:</u> 65% of final pay.  <u>Additional Benefits for Service Beyond Minimum Requirements:</u> \$10.00 per month for each additional year of service in excess of 20 years but not to exceed \$50.00.
Disability	
Short Term	\$8.00 per day to a maximum of 26 weeks.
Total and Permanent	<u>In Line of Duty:</u> 65% of final pay. <u>Not in Line of Duty:</u> 65% of final pay.
Vesting	Same as Retirement benefit.
Widow's Benefit	65% of member's pension benefit based on 65% of final pay.
Children of Deceased Members	If both parents are deceased, 65% of member's pension. If member dies before retirement, \$125.00 per month per child to age 18 or 22 if in school.

Other Death Benefits	None.
Salary Basis for Benefits	Current compensation.
Unit Value	Not applicable.
Member Contribution	8% of compensation.
Escalator Clause	Former member's pension benefits are increased by 3-1/2% with each salary raise of active members.



## APPENDIX C - CENSUS DATA

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CENSUS DATA

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Active Members

<u>Number</u>	<u>Age Nearest Birthday</u>	<u>Completed Years of Service</u>	<u>Current Salary</u>	<u>Projected Annual Annuity</u>
1	54	26	\$21,475	\$14,559
2	49	18	\$19,543	\$14,817

Widows of Deceased Members

<u>Number</u>	<u>Age Nearest Birthday</u>	<u>Annual Benefit</u>
1	59	\$7,005



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