GEORGE V. STENNES
FELLOW, SOCIETY OF ACTUARIES
FRANKLIN C. SMITH
ASSOCIATE, SOCIETY OF ACTUARIES
GERALD G. TOY
ASSOCIATE, SOCIETY OF ACTUARIES
CHANDLER L. MCKELVEY
ASSOCIATE, SOCIETY OF ACTUARIES

FEDERAL 9-8789

GEORGE V. STENNES AND ASSOCIATES
CONSULTING ACTUARIES
1433 NORTHWESTERN BANK BUILDING
MINNEAPOLIS 2, MINN.

May 1, 1958

Nashwauk Police Relief Association
Nashwauk, Minnesota

Gentlemen:

Pursuant to your request an actuarial valuation of your fund has been prepared. The results of the valuation have been summarized in the following pages together with other statistical data required by law.

I certify that all calculations in respect to the valuation were performed on the basis of the assumptions outlined in this report and that the results are true and correct to the best of my knowledge.

Respectfully submitted,

George V Stennes

George V. Stennes
Fellow, Society of Actuaries

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INTRODUCTION

In accordance with Chapter 11 of the Minnesota Special Session Laws of 1957, an actuarial survey as of January 1, 1958, has been made of the

Nashwauk Police Relief Association

The survey covers the membership of the Fund as shown in the census of members and survivors of deceased members which is included in this report. The details of the benefits under the plan as well as membership data were furnished by the Fund.

This report covers the following items:

A. Benefits of Plan.

B. Assumptions in Actuarial Valuation.

C. Results of Survey.

D. Discussion of Results.

E. Census of Membership.

A. BENEFITS OF PLAN

The plan provides the following major benefits.

1. Retirement benefit.

   a. Requirements for retirement.

      Age 55, 20 years' service.

   b. Monthly annuity when minimum requirements are met.

      One-half of average monthly earnings during three years prior to retirement.

   c. Additional monthly annuity after minimum requirements are met.

      $5 for each additional year of service not exceeding 5 years.

2. Disability benefit (monthly annuity).

   None

3. *Widow's benefit (monthly annuity).

   $60 provided deceased member had 20 years of service.

4. *Surviving children's benefit (monthly annuity).

   $10 to age 16, provided deceased member had 20 years of service.

5. Other death benefit (lump sum).

   None

* The combined widow's and children's benefit is limited.

B. ASSUMPTIONS IN ACTUARIAL VALUATION

1.	Mortality:	United States Life Tables, 1949-51 (White Males and White Females) These tables were used for both active and retired members, and for survivors.
2.	Disability:	The rates of disability were adapted from recent experience of the New York State Employees' Retirement System, graduated and extrapolated as required for this survey.
3.	Withdrawal:	A rate of withdrawal of .050 at age 20 decreasing uniformly to zero at age 45 with no withdrawals after that age.
4.	Salary scale:	No prediction of future salaries made except for assumption (where applicable) that salary at retirement of recent entrants will be the same as that for members of long service.
5.	Retirement age:	The assumed average age at retirement for this fund was **57.6.**
6.	Interest:	3%, compounded annually.

It is felt that these assumptions are appropriate for the valuation of this fund on a realistic basis.

C. RESULTS OF SURVEY

1. Valuation.

Normal cost of benefits	$ 1,611
Required reserve	52,840

2. Current deficit from full funding.

Required reserve	$ 52,840
*Assets in fund	17,882
Deficit	$ 34,958

3. Annual payment to achieve full funding by 1997.

Annual deposit to retire deficit by 1997.	$ 1,512
Total normal cost	1,611
Total annual payment	$ 3,123

4. Minimum contribution to prevent increase in deficit.

Interest on deficit at 3%	$ 1,049
Total normal cost	1,611
Minimum contribution	$ 2,660

5. *Income of fund in 1957.

Members' contributions	$ 564
Taxes or public funds	1,513
Other	0
Total contributions	$ 2,077
Investment return	$ None reported

6. *Annual payroll as of January 1, 1958. $ 13,560

*Data furnished by Fund.

D. DISCUSSION OF RESULTS

The valuation was made by a method known as the entry age normal cost method. Under this method, a normal cost corresponding to the hiring age of each member is determined. This normal cost is the annual deposit required (under the assumptions outlined) to pay for the cost of the member's prospective benefits over the period from the date of hiring to the date of retirement.

When a retirement plan is fully funded, the fund contains an amount equal to the accumulation (under the assumptions made) of the normal cost for each member from the date of hiring to the date of valuation. This accumulation is called the accrued liability or the required reserve. A retirement plan which is fully funded requires future contributions no larger than the sum of the normal cost of all active members to pay for the prospective benefits (if the assumptions made are realized exactly).

To the extent that normal costs have not been paid, a plan is not fully funded. The amount by which the plan is short of full funding is called the unfunded liability or the deficit of the fund. In other words, the deficit is the excess of the required reserve over the actual assets of the fund.

In addition to the current normal cost of the fund, the 1957 law referred to in the Introduction requires a determination of the additional annual contribution necessary to retire or eliminate the deficit by the end of 1997. Payment of this amount each year in addition to the normal cost would result in full funding of the present plan with no deficit by the end of 1997, provided that experience follows the assumptions outlined. In order for the fund to accomplish this result, an annual deposit of the amount stated in item 3 of Section C is required.

The deficit in the fund will increase unless at least 3% interest on the deficit is paid each year in addition to the normal cost. The sum of these two amounts should be regarded as the minimum annual contribution to the fund in order to keep the deficit at its present size. For this fund, the minimum contribution is shown in item 4 of Section C.

E. CENSUS OF MEMBERSHIP

Summary of membership and survivors of deceased members.

Status	Number
Active members	3
Deferred annuitant members	0
Retired members	0
Disabled members	0
Widows of deceased members	0
Children of deceased members	0

Nashwauk Police Relief Association - Census of Active Members

		Year of: Birth	Year of: Empl.	Salary	Contrib.	Pension
66	1	09	42	$0370.	$181.	$20000
66	1	24	54	0360	179	19000
66	1	99	37	0400	203	22000
						$6100.

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