MINNESOTA HIGHWAY PATROLMEN'S RETIREMENT ASSOCIATION

Actuarial Survey as of June 30, 1955

October 19, 1956

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1. History of Fund.

The Association was formed pursuant to Chapter 637, Laws 1943. Money previously paid by its members into the State Employees' Retirement Fund was transferred to this fund.

The Plan was defined and amended by Chapter 172, Laws 1945; by Chapter 577, Laws 1947; by Chapter 627, Laws 1949; and by Chapter 453, Laws 1953.

2. Membership.

As of December 31, 1955, there were 288 members in the fund. Of these, 258 were active or on leave and 30 had either retired or had resigned and left their accumulations to buy a deferred annuity.

3. Benefits.

a. Retirement benefit. Originally, the Plan provided a pension of 60% of average final salary over the last five years of service, with a maximum of $100 per month. This was available after 20 years service at age 58.

An amendment reduced the retirement age to 55 and increased the pension $5 per month for each year of service beyond 20 up to 25 years total service; and the maximum pension was increased to $125 per month.

The latest amendment, which fixes the current benefit, raised the maximum benefit at age 55 to $150 per month plus $3 for each year of service beyond 20. For a service period between 15 and 20 years at age 58, a member may pay the remaining contributions to complete 20 years and receive the full annuity. For a service period between 10 and 15 years, a member receives a pension proportional to that available for 20 years service. Retirement is mandatory at age 60.

The pension benefit is a modified cash refund type under which the death benefit after retirement is the total amount of member contributions in excess of pension payments received.

b. Disability benefit. After 10 years service, the benefit for disability incurred while on duty is 60% of salary at time of disability with a maximum of $100 per month. Any income under the Workmen's Compensation Law or income from employment is deducted from this benefit.

c. Death benefit. Prior to the member's retirement, the death benefit is equal to his contributions to the fund.

d. Withdrawal benefit. A member with less than 20 years of service before age 58 is entitled to his contributions to the fund upon separation from service. If he has at least 10 years of service, he may leave his contributions and receive a deferred annuity payable at age 55. The amount of the annuity is the proportion of normal annuity that actual years of service bears to 20 years.

4. Contributions.

a. Member. Originally, the rate of contribution was set at 6% of salary not to exceed $15 per month. This was increased to 8% of salary, not to exceed $20 per month, which is the current rate of contribution.

b. State. Contributions are made each month out of highway funds to match member contributions.

5. Valuation of fund.

a. Assumptions. The assumptions used in this valuation are:

Interest: 2 3/4%

Mortality: 1937 Standard Annuity Table (both before and after retirement)

Retirement Age: 58

No withdrawal rates, disability rates, or salary scale are assumed. This follows the method employed in previous actuarial reports. Withdrawal gains are partly offset by fund expenses. Disability rates are not included because only negligible losses may be expected from disability claims. Salary scale does not affect valuation of this fund because both contributions and benefits are effectively set by the maximums applicable to both.

The assumptions of interest and mortality differ from those made in the 1948 and 1952 actuarial reports. The previous assumptions were:

Interest: 2 1/2%

Mortality: Combined Annuity Table

The more liberal current assumption of 2 3/4% interest appears to be justified in the foreseeable investment market for the type of securities purchased by the fund.

The current mortality assumption is considerably more conservative than that formerly used. It would appear that such conservatism is justified for several reasons. One of the most important of these is the high physical standard required of highway patrolmen. Another is that longevity is constantly increasing and may be expected to continue to increase. Investigations of annuitant mortality almost invariably show a secular reduction in mortality rates.

A retirement age of 58 has been used for this analysis. This is in line with the previous actuarial reports. Actual retirements under the fund have occurred at an average age of 57; but the fact that there are several members working beyond that age makes the assumption of average age 58 a reasonable one. Further experience should be taken into account in subsequent studies.

b. Status of fund as of June 30, 1955.

Required reserve	$2,690,593
Total assets	890,397
Deficits	$1,800,196

c. Analysis of deficit. The substantial increase in deficit over that shown in the previous actuarial reports is partly due to the changed assumption for mortality. The primary reason for the increase in deficit, however, is the increase in benefits which was made in 1953. This change was subsequent to the 1952 actuarial report. An increase in benefits was made of about 50% of their previous level, but there was no increase in contributions to pay for the increased cost. This resulted in an increase in deficit in 1953 of about $1,280,000.

No funding of the past service deficit has been made so that the present deficit of the fund is increasing at interest. This may be partially offset by gains on terminating employees without a vested interest. However, since contributions will not support benefits for a new employee, a larger deficit will result from any expansion of membership.

Respectfully submitted,

George V. Stennes,
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