INTRODUCTION

At the request of the Fund, an actuarial survey as of January 1, 1964 has been made of the

State Police Officers Retirement Fund

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.

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STATE POLICE OFFICERS RETIREMENT FUND

A. BENEFITS OF PLAN

The plan provides the following major benefits:

1. Retirement Benefit.

   a. Requirements for retirement:

      Age 58 and 10 years' allowable service credit. (Reduced early retirement benefit available at age 55 with 20 years' allowable service.)

   b. Monthly annuity when minimum requirements are met:

      2% of average monthly salary for each year of allowable service.

   c. Additional monthly annuity after minimum requirements are met:

      2% of average monthly salary for each additional year. No additional credit given for service after reaching age 60, except that participants hired before 7-1-1961 may count years of service past 60, with a maximum of 30 years' service.

2. Disability Benefit (monthly annuity).

   In line of Duty: 40% of average monthly salary.

   Not in line of Duty: If ten years' service completed, 2% of average monthly salary for each year of service, plus following supplemental benefits for participants disabled before age 58:

Age When Disabled	Supplementary Benefits
Under 51	$ 50
51	44
52	38
53	32
54	26
55	20
56	12
57	6

Maximum Benefit: 60% of average monthly salary. A participant eligible for both types of disability benefit may apply for either but not both.

3. Widow's and Orphan's Benefit. (Monthly annuity).

a. In case of participant's death before retirement, the surviving spouse may choose one of the following two benefits:

(1) $65 per month for surviving dependent spouse, plus $45 per month for each dependent child, plus $20 per month to be divided equally among the dependent children. Maximum of $250 for any one family.

(2) If member had completed 20 years of allowable service, a deferred annuity payable at age 62 of 75% of the members normal annuity, with a maximum of $150. If the member was under 58 at the time of death, the benefit is reduced by 1/2% for each month before age 58.

b. In case of death after retirement:

No survivors benefit unless participant had elected an option.

4. Other Death Benefit (lump sum): None.

B. ASSUMPTIONS USED IN ACTUARIAL VALUATION

1.	Mortality:	United States Life Tables, 1949-51 (White Males).
2.	Disability:	Rates of disability were adapted from recent experience of the New York State Employees' Retirement System, graduated and extrapolated.
3.	Withdrawal:	A rate 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 59.75.
6.	Options:	Provision was made for those members who have elected optional retirement benefits under 352A.11 and 352A.12.
7.	Interest:	Calculations were done using both 3% and 3 1/2%, with interest compounded annually.
8.	Salary Basis:	Calculations were done using both $4,800 and $6,000 as the maximum annual salary upon which deductions and pensions are based.

C. RESULTS OF SURVEY:

Valuation	3% Interest $4800 Max.	3% Interest $6000 Max.	3 1/2% Interest $4800 Max.	3 1/2% Interest $6000 Max
Normal Cost of Benefits	$ 107,119	$ 120,399	$ 96,829	$ 108,828
Required Reserve	2,617,556	2,739,125	2,465,504	2,576,860
Current deficit from full funding.				
Required reserve	$2,617,556	$2,739,125	$2,465,504	$2,576,86
*Assets in fund	963,463	963,463	963,463	963,46
Deficit	$1,654,093	$1,775,662	$1,502,041	$1,613,39
Annual payment to achieve full funding by 1997.				
Annual deposit to retire deficit by 1997	$ 78,275	$ 84,028	$ 76,243	$ 81,89
Normal cost	107,119	120,399	96,829	108,82
	$185,394	$204,427	$173,072	$190,72
Minimum contribution to prevent increase in deficit.				
Interest on deficit	$ 49,623	$ 53,270	$ 52,571	$ 56,46
Normal cost	107,119	120,399	96,829	108,82
	$156,742	$173,669	$149,400	$165,29

Income of Fund in 1963.*

Members Contributions	$ 52,523
State Contribution (9%)	78,869
State Contribution (2%)	17,576
Total Contributions	$148,968
Investment return	$ 35,122
Other income	
Buy backs	$ 533
Interest on buy backs	1,711
Interest from SERA	8,792
Redeposit of overpayment	192
Refund of Security subscription	2,252
	$ 13,480

Annual Payroll as of January 1, 1964. *

Total Annual Payroll:	$ 1,099,896
Payroll on which deductions are based:	
a) $4800 Maximum	787,200
b) $6000 Maximum	938,484

* 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 perioc 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 normal cost of the fund, the surveys as of 1-1-1958 and 1-1-1962 made a determination of the annual contribution necessary to eliminate the deficit by the end of 1997. A similar determination has been made in the survey as of 1-1-1964. 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 Section C is required.

The deficit in the fund will increase unless at least the assumed rate of interest is paid on the deficit each year in addition to the normal cost. The sum of the normal cost and interest (at the assumed rate) on the deficit should be regarded as the minimum annual contribution to the fund in order to keep the deficit at its present size. This minimum contribution is shown under item 4 of Section C.

E. CENSUS OF MEMBERSHIP

Summary of membership and survivors of deceased members.

Status	Number
Active members	164
Deferred annuitant members	3
Retired members	33
Disabled members	0
Widows of deceased members	16
Children of deceased members	10