STATE POLICE OFFICERS VALUATION AS OF JUNE 30, 1966

The purpose of this memorandum is to discuss the valuation report of the Minnesota State Police Officers Retirement Association which was submitted to the Commission in accordance with Chapter 359 of Minnesota Laws 1965. The valuation was made on the basis of the entry age normal cost method and assuming 3% interest. Our office completed this valuation and the one in 1965.

This memo contains the following:

1. Statistical and Valuation Data
2. Discussion of Valuation Results
3. Conclusion

1. Statistical and Valuation Data

Results of the valuation reports as of June 30, 1965 and June 30, 1966 are shown for comparative purposes. Figures are rounded where necessary for simplicity of presentation.

(1) Membership	As of June 30, 1965	As of June 30, 1966
Active Members	168	171
Deferred Annuitants	3	4
Retired Members	31	32
Disabled Members	2	1
Widows of Deceased Members	19	21
Children of Deceased Members	9	5

(2) Payroll and Annuities Payable

	(Thousands of Dollars)	
Total Payroll (no limit)	$1,070	$ 1,147
Covered Payroll ($7,200 limit)	1,042	1,108
Annuities (Annual)	96	99

(3) Valuation Balance Sheet

	(Thousands of Dollars)	
Accrued Liability	$ 3,294	$ 3,231
Assets	1,070	1,203
Unfunded Accrued Liability (Deficit)	$ 2,224	$ 2,028
Funding Ratio (Assets/Accrued Liability)	33%	37%

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	As of June 30, 1965		As of June 30, 1966	
(4) Normal Cost and Funding Costs		% of Covered Payroll		% of Covered Payroll
Normal Cost	$ 128,000	12.3%	$ 131,473	11.9%
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Interest on Deficit	67,000	6.4	60,834	5.5
Minimum Contribution	$ 195,000	18.7%	$ 192,307	17.4%
Normal Cost	$ 128,000	12.3%	$ 131,473	11.9%
Amortization by 1997	107,000	10.3	98,435	8.9
Required Contribution	$ 235,000	22.6%	$ 229,908	20.8%
(5) Statutory Contributions				
Employee		6.0%		6.0%
Employer Regular		9.0		9.0
Employer Additional		3.5		3.5
Total Contributions		18.5%		18.5%
(6) Estimated Investment Yield *		3.9%		3.9%

* Ratio of reported investment income to estimated mean assets for fiscal year.

2. Discussion of Valuation Results

There was no significant change in the normal cost.

The accrued liability decreased from $3,293,669 to $3,231,212. Since one normally expects an increase in the accrued liability from year to year as the active participants move toward retirement age, this decrease requires an explanation.

There were four deaths among the 33 participants who were listed as retired or disabled on the 1965 report. This is about four times the number of expected deaths. In addition, since one of these deaths occurred at a relatively young age, the reserve released was larger than would normally be expected from four deaths. The combination of these two factors produced an abnormal change in the accrued liability.

The unfunded accrued liability or deficit has decreased from $2,223,974 to $2,027,799. This too is an unexpected result since the statutory contribution rate of 18.5% of payroll was short of the 18.7% shown as the minimum contribution in the 1965 report. The main reason for this unexpected result has been presented in the paragraph above, but, in addition, the rate of return on investments during the year exceeded the assumed rate of 3%.

The 1965 report indicated a minimum contribution rate of 18.7% compared with an actual contribution rate of 18.5%. The contribution rate necessary to pay normal cost and amortize the deficit by 1997 was shown to be 22.6% which exceeded the actual contribution rate by 4.1%.

The 1966 report shows a minimum contribution rate of 17.4% and a required contribution rate of 20.8% compared again with a statutory rate of 18.5%. The reasons for the improved situation have been discussed above.

It may be noted that at the current rate of contribution, it will require about 55 years to amortize the deficit.

3. Conclusion

Based upon our valuation assumptions, it is our opinion that the statutory contributions for this plan are greater than the minimum contribution but will not amortize the deficit by 1997.

Franklin C. Smith
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Commission Actuaries