Details of the Experience Tables adopted and the Life and Service Tables deduced therefrom are given in Tables VII and VIII of the appendix.

14. The factors necessary for the valuation of widows' and children's benefits were built up from population statistics combined with the experience of the fund itself.

Results of Valuation.

15. The Act (section 49 (2)) requires the actuarial report to be so prepared "as to show the state of the fund at the close of the period, having regard to the prospective liabilities and assets."

The valuation has accordingly been made and the results are shown in Table IX of the Appendix, but they may be shortly summarized as follow:—

		£	£
Present value of existing pensions and allowances			3,375,540
Present value of prospective benefits		11,157,495	
Less present value of members' contributions ..	£3,208,114		
And less present value of State subsidy under section 114 of the Act	570,978		
		3,779,092	
			7,378,403
Total net liabilities			10,753,943
Funds in hand			2,882,504
Present value of total liability of State			7,871,439
Less present value of present subsidy of £86,000 (if treated as a perpetuity)			1,911,111
Value of future subsidies to be provided for by the State over and above the present subsidy of £86,000			£5,960,328

16. The above statement shows a total State liability of £7,871,439, as compared with £6,659,770 at the last valuation, giving an increase of £1,211,669. This increase is mainly due to the accumulation at interest of that part of the State's liability which is unprovided for, and to the number of retirements of comparatively young officers with long service being in excess of the valuation assumptions.

17. As regards the first-mentioned source of valuation loss, it is scarcely necessary to point out that if a fund is in deficiency at one valuation, the amount of the deficiency at the succeeding valuation will, all other things being equal, increase at compound interest, since, in addition to the shortage in capital, the fund is deprived of the interest which that capital would have earned during the valuation period.

Reference has been made in previous valuation reports to the serious drain on the fund due to early retirements from causes other than medical unfitness. While in the case of those officers who are retired at ages ranging from 55 to 60 after completing forty years' service, the additional liability is self-evident not only from the greater number of years during which the Superannuation Fund is called upon to pay pensions, but also from the loss of contribution income until age 65, there appears to be a popular and fairly prevalent impression in many quarters that in the case of officers retired after thirty-five years' service, the fund is fully compensated by the fact that the pension is based on thirty-five-sixtieths of salary instead of the maximum of forty-sixtieths. It may not be out of place therefore, for me to state that in spite of the smaller annual pension, the net liability to the Superannuation Fund in respect of the retirement of a physically fit officer with thirty-five years' service is on the average at least 30 per cent. in excess of the net liability in respect of the same officer for a full pension after completing forty years' service.

18. The importance of the ascertainment of the state of the fund in the form given in paragraph 15 lies in the fact that the shortage in the fund to be made good by the State—viz., £7,871,439—is equivalent to an annual interest income (at 4½ per cent.) of £354,215. It follows that if any less annual sum than £354,215 is paid in by the State as subsidy the total deficiency will increase, and the subsidy must accordingly by way of compensation rise later on to a much higher figure than £354,215 per annum in respect of present contributors alone. If, however, any annual amount in excess of £354,215 is paid in, the fund would, in respect of present members, attain solvency within a definite period of time. It should be clearly understood that this amount of £354,215 is a perpetuity, and does not cease with the lifetime of the present members, nor does it include any subsidy to new entrants.

Ascertainment of State Subsidy.

19. The Act, however, does not provide that the subsidy should be determined from the foregoing actuarial ascertainment. It directs the Actuary to show in his report "the probable annual sums required by the fund to provide the retiring and other allowances falling due within the ensuing three years without affecting or having recourse to the actuarial reserve appertaining to the contributors' contributions." I take this to mean that as the contributions are insufficient to provide the full benefits for service after joining the fund, the principle underlying the section is that the State shall postpone till it emerges the liability for pensions arising out of service before joining the fund, and for such part of the pensions arising out of subsequent service as is not covered by the contributors' contributions.