

ages the disparity between actual and hypothetical salaries was not wide enough to justify the assumption of valuing on the basis that future salary increases would not bridge the gap. It therefore became necessary, not only to separate those contributing on actual and on hypothetical salaries, but also to make two valuations of those contributing on hypothetical salaries to allow for the fact that First Division officers under age forty-nine and Second Division officers under age thirty-eight would, on the average, rise to a higher actual salary than the hypothetical salary on which they were contributing. In making these several valuations, it was essential to allow for the fact that the salaries supplied on the cards had been automatically increased by 5 per cent. as from 1st April, 1934, and to make some assumption as to an early restoration of portion of the remainder of the salary "cuts." For this purpose I assumed that an all-round increase of 5 per cent. would be forthcoming on 1st April, 1935. Actually, a 7½-per-cent. increase was subsequently granted in August, 1935, and all salary "cuts" were fully restored as from 1st July, 1936.

22. The cards supplied in respect of discontinuances did not agree with the figures given in the annual reports, but for what it is worth, I give the result of the experience during the septennium based on the cards supplied.

23. The actual deaths during the septennium were 77 in the First Division and 308 in the Second Division, as against respective numbers of 72 and 310 expected by the tables used in the previous valuation.

24. The withdrawals were 216 in the First Division and 1,314 in the Second Division, as against an expectation of 458 and 3,231 respectively. This appears to have been directly due to the economic depression, the difficulty of finding remunerative employment checking the former tendency of officers to leave the Service for private employment.

25. The retirements in the First Division were 570 and in the Second Division 922, as against numbers of 273 and 600 expected, and the excess was reflected at all ages from forty-five onwards. These excessive retirements were commented on earlier in this report, and it will be sufficient here to point out that the total number of pensioners (exclusive of widows and children) which had increased from 1,417 in 1927 to 1,514 in 1930, grew to no less than 2,348 in 1934.

26. In view of the above figures and the special influences operating during the septennium, the experience could scarcely be regarded as a normal guide to the future, and it was decided to adopt rates of mortality, withdrawal, and retirement based on the period 1919 to 1927 and used in the 1927 valuation.

27. Details of the experience tables adopted and the life and service tables deduced therefrom are given in Tables VI and VII of the Appendix.

28. 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.

29. The valuation of the Fund has been made on the bases above mentioned and the valuation balance-sheet is given in detail in Table IX of the Appendix, but the results may be shortly summarized as follows:—

	£	£
Present value of existing pensions and allowances .. .. .	..	4,394,747
Present value of prospective benefits .. .. .	7,441,957	
Less present value of members' contributions .. .. .	1,495,975	
	<hr/>	5,945,982
Total net liabilities .. .. .	..	10,340,729
Funds in hand .. .. .	..	1,240,831
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Present value of total liability of State .. .. .	..	9,099,898
Less present value of existing annual subsidy of £170,000 (if treated as a perpetuity) .. .. .	..	3,777,778
And less present value of State subsidy in respect of allowances to widows and children under section 114 of the Act .. .. .	..	257,760
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Value of future subsidies to be provided for by the State over and above the present subsidies .. .. .	..	£5,064,360
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30. The above statement shows a total State liability of £9,099,898 as compared with £6,810,204 at the last valuation, giving an increase of £2,289,694. The increase is due partly to the accumulation at interest of the difference between the annual subsidies paid and those recommended in my last actuarial report, and partly to the excessive number of retirements of comparatively young officers.

31. 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, in the absence of profit and loss from other sources, 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.