

15. Average salary scales—males and females being treated separately—were constructed for the year immediately following the valuation date, and the resulting ratios of increase from age to age were applied to the annual salary on which each teacher was contributing as at the 1st February, 1930.

16. The rates of mortality, withdrawal, and retirement of male contributors used in the valuation were based on an examination of the fund's experience during the triennium under review, together with that of each of the two preceding triennia.

The number of deaths among teachers in active service is proverbially light, and accordingly it was deemed advisable to combine the data of the whole three triennia in order to minimize the possibility of fluctuations, and so produce smooth rates, which could also be relied on as an indication of the mortality likely to prevail in the future.

The withdrawals at all age groups showed a progressive decline during the three valuation periods, and it was decided to use the experience of the triennium under review as the main guide to the withdrawal-rates adopted in the valuation.

The number and incidence of the retirements have been materially altered by the removal of the length-of-service qualification in respect of pensions for retirements medically unfit. Many medically unfit teachers who previously had to withdraw from the Service are now eligible to retire on pensions, while other border-line cases who were able to remain in the Service until the completion of fifteen years' service before being retired medically unfit may now be retired at an earlier date. As might have been expected, this has resulted in an increase in the retirement-rates at ages under 40 combined with a decrease in the rates for succeeding ages up to about age 50.

Retirements were again heavy from age 55 onwards, and, as this feature has been in evidence in each of the last three triennia, I felt compelled for valuation purposes to regard it as a permanent feature of the fund.

The deaths, withdrawals, and retirements in respect of female contributors were examined for each of the last three triennia, and the necessary rates adopted for use in the valuation were arrived at along much the same lines as indicated above for the males.

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

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

RESULTS OF VALUATION.

18. The Act (section 111 (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 been made accordingly, and the results are shown in Table VIII of the appendix, but they may be shortly summarized as follow:—

	£	£
Present value of existing pensions and allowances .. ..	..	2,293,201
Present value of prospective benefits	6,241,722	
	£	
Less present value of members' contributions ..	1,635,681	
Less present value of Government subsidy under section 114 of the Act	141,329	
	<u>1,777,010</u>	<u>4,464,712</u>
Total net liabilities .. ..	..	6,757,913
Funds in hand .. ..	..	<u>1,198,711</u>
Present value of total liability of the State .. ..	..	5,559,202
Less present value of existing subsidy of £68,000 per annum (if treated as a perpetuity) .. ..	..	<u>1,511,111</u>
Value of future subsidies to be provided for by the State over and above the present subsidy of £68,000 per annum .. ..	..	<u>£4,048,091</u>

19. It will be seen from the above statement that there is a total State liability of £5,559,202, as compared with £4,647,798 at the last valuation, giving an increase of £911,404. 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 teachers with long service being in excess of the valuation assumptions.

20. 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.

The latter source of loss is self-evident in the case of those teachers who are retired, irrespective of age, after completing the maximum service that may be counted for pension, 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 the normal retiring-age. There appears, however, to be a fairly prevalent impression in many quarters that in the case of male teachers retired after thirty or thirty-five years' service, the fund is fully compensated by the fact that the pension is based on one-sixtieth of the salary multiplied by service, instead of the maximum of forty-sixtieths of salary.