13. The cost of the scheme is borne jointly by the employee, the local authority (employer), and the State. The State bears 20 per cent. of the total cost, the employee contributes a percentage of his salary (the amount of such percentage varying with the age at joining the fund), and the local authority makes up the balance. The ratio of the contribution cost to the employer and employee depends on the incidence of the ages at entry into the fund, and consequently may show fluctuation not only between one local authority and another, but also in the same local authority at various stages of its existence. At the valuation date the proportion of the total cost of the benefits borne by the local authorities and their employees was approximately 50 per cent. and 30 per cent. respectively.

14. The scheme is unique in many respects, but two features are specially important, namely,—
(1.) The Actuarial Basis of the Scheme.—In calculating contributions for final-salary pension schemes, a salary percentage (varying with the entry age) is usually fixed, based on an estimated averagesalary scale at each age. The difficulty of this problem may be gauged by considering what economic changes may take place—and their effect on salaries—during the thirty or forty years before the bulk of the pensions fall in for payment. Even assuming that an average-salary scale could be forecasted in every detail, and that a salary percentage contribution could be fixed to secure that the pension fund should always have a ratio of solvency of exactly 20s. in the pound, there still exists the lack of a definite relation between the benefits and contributions of the individual, and this constitutes the chief defect of most final-salary pension schemes. The local-authorities scheme overcomes this defect by providing that each contributor, with the assistance of the State and his employer, pays in on the average for the benefits that he will receive without any addition to or diminution of the burden of any This was effected by basing the contribution for pension on present salary and other contributor. prospective service to the normal pension age (or prior breakdown) and dealing as they emerge with the additional pensions due to subsequent salary-increases. This method of dealing with actual instead of speculative salary-increases involves a series of adjustments at fairly regular intervals, but the additional labour is more than compensated by the increased stability. In effect it may be said that the sound actuarial framework of the scheme eliminates uncertainty as far as is possible in the light of our present knowledge.

(2.) The Period over which the Contributions are spread.—In view of the intention to include in the scheme all employees irrespective of their attained age and to allow back service to count, it was decided that to make contributions cease at retirement would throw too heavy an initial strain on the State and the local authority in respect of old employees. The liability of the State and the local authority was accordingly spread over the lifetime of the employee, the latter's contribution terminating at retirement. I am of the opinion that it would have been preferable to have limited the principle of extending the period for extinguishing the contribution liability to the cases of existing employees over a certain age (say 50), although it must be admitted that, in view of the assured continuity of the local authorities, and the State's guarantee, the fund itself is safeguarded. From an actuarial standpoint the principle has an element of safety by reason of the fact that any improvement in the mortality experienced by pensioners will throw a strain on the fund only in respect of the excess of the pension over the life contribution. In the case of the present contributors over the normal pension age there

is obviously no actuarial risk whatever in respect of pensions.

## APPROVED-FRIENDLY-SOCIETIES SCHEME.

15. The scope of the main Act was still further extended by the Finance Act, 1916 (Part IX, Social Insurance) which allowed approved friendly societies to become contributors to the fund on behalf of any of their members, to secure for them, on attainment of age 60, a weekly pension of 10s., 20s., 30s., or 40s. on special terms.

16. The tables of contributions are set out in Table I of the Appendix. The low contributions charged to members are due to—(1) The payment into the fund by the friendly society of a sum equivalent to its release from specified sickness benefits after members' attainment of age 60; (2) the increase of the State subsidy under this section to 50 per cent. of the contributions.

17. In addition to the aforementioned subsidy to each section of contributors, the State bears the whole expenses of administration, provides by an annual parliamentary grant a maternity benefit of £6 on the birth of a contributor's child or children (conditional on the parents' joint annual income not exceeding £300), and guarantees the scheme by agreeing to pay into the fund such further amounts as are deemed necessary in accordance with the Actuary's report.

18. The following statement shows the progress of the fund at the end of each triennium since its inception:—

Year.						Members.	Annual Contribu- tion at 31st December.*	Total Accumulated Fund.
1913 1916 1919	•••	••		•••		5,791 9,847 16,155	38,624 122,30	£ 29,327 122,361 338,729

<sup>\*</sup> Exclusive of annual premiums commuted by single payment.

At the 31st December, 1919, 14,058 males and 2,097 females were contributing, representing an increase of about 55 per cent. and 180 per cent. respectively in the number of male and female contributors on the books at the beginning of the triennium.