

## NOTES ON THE TRANSACTIONS OF THE FACULTY OF ACTUARIES

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PETER L. MCKINLAY, M.D., D.P.H., F.R.S.E. *Vital statistics: their collection and analysis*, pp. 265-280. A summary of three lectures delivered before the Faculty in November and December 1947. The summary discusses the available statistics, their limitations and imperfections, and gives examples of their use in the general medical field. A note at the end of the summary stresses the need for more adequate statistics descriptive of all the facets of national health.

J. B. MACLEAN. *Some recent actuarial developments in the United States of America*, pp. 281-321. Against the background of a general review of the law and practice in the U.S.A. with regard to valuations, surrender values and non-forfeiture regulations, the paper gives an interesting discussion of developments resulting from: (1) the recent passage of the 'standard valuation law' by most of the state legislatures, and (2) the general adoption by the companies of a lower interest assumption in the calculation of premiums, valuation reserves and non-forfeiture values. The paper and discussion may be recommended to British students and others who wish to learn more of conditions in countries other than their own. The paper should be read side by side with *Surplus distribution under ordinary insurance in the United States and Canada* by E. W. Marshall, *Proceedings of the Centenary Assembly of the Institute of Actuaries*, Vol. II, pp. 275-288.

*Continuous mortality investigation: annuitants' experience*, pp. 322-343. A summary of the experience over the period 1923-45, which appeared in *J.I.A.* Vol. LXXIV, pp. 126-144.

A. R. REID and D. W. A. DONALD. *Widow's annuity option in connection with staff pension funds*, pp. 344-354. This note provides a useful solution of the practical problem which arises when a member of a pension fund is given the right to opt for a widow's pension in return for a stated reduction in the amount of the member's own pension when he retires. In the authors' solution the amount of the widow's pension is made to depend upon the widow's age at the time of the election and upon the member's age passed through—the heading of the table on p. 350 is, we think, confusing. In the example given in the table the amount of the widow's pension reduces rather rapidly as the age of the member increases.

This number of the *Transactions*, which completes Vol. XVIII, also includes a letter from C. M. Gulland giving a table of percentages of the total assets of ten life offices invested in different classes of securities at 31 December in each of the five years 1943-47. The table is a continuation of those given in *T.F.A.* Vol. XVI, p. 263 and Vol. XVII, p. 226.

- A. R. DAVIDSON. *Presidential Address*, pp. 1-16. Discusses some of the problems arising out of the population growth of the United Kingdom since the industrial revolution, with particular attention to the proportions of the population in the various age-groups, the relationship between population and economic resources, the classes of the population for whom restraints in breeding have been increased and those for whom those restraints have been removed, and the incentives necessary to induce production and to encourage the most intelligent and energetic sections of the community.
- G. H. RECKNELL. *Insurance against inflation*, pp. 17-46. The author asks whether it is possible to protect life assurance policyholders against the risk of currency depreciation. He considers linking policies to gold, a commodity price index, or the price of a particular commodity, and decides in favour of linking with the price of ordinary shares.
- S. C. KEPPIE and A. C. STEPNEY. *Notes on constant and increasing extra mortality*, pp. 47-88. The paper gives tables of extra premiums and equivalent level debts required for under-average lives for different classes of policy in addition to the A1924-29  $2\frac{1}{2}\%$  ultimate net premiums, on the assumption that extra mortality may be expressed either as a constant addition or as a fixed percentage addition to A1924-29 ultimate  $q_x$ .
- The use of these tables is discussed and tables are given of reserve values for policies subject to the same type of under-average mortality.
- International actuarial notation*. The statement which appeared in *J.I.A.* Vol. LXXV, p. 121.