



SOCIETY OF ACTUARIES

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## Broadening Scope

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lems outside what he styled "the proper domain of the Institute" — which he clearly regarded as life assurance. Yet the career of the first President, John Finlaison, who never served in a life office, had strikingly illustrated, many years before 1848, the scope of the actuarial approach in the solution of financial problems.

With the emergence of the idea that measurement by the aid of statistics could contribute to managerial and productive efficiency, it is relevant to record that our profession had long exhibited a curious inhibition about the word "statistics". The word, and its adjective, occurred but infrequently in actuarial literature, even though George King did include a chapter headed "Statistical Applications of the Mortality Table" in Part II of the celebrated Institute of Actuaries' Textbook, which dealt with Life Contingencies. Sir William Elderton wrote, in 1906, his *Frequency Curves and Correlation*, and Sir George Hardy daringly used Pearsonian frequency curves for the graduation of the official British Offices tables. But there seems still to have been no widespread perception that actuaries were in fact a species of applied statistician, or that they could make and process statistical observations in any other field of activity.

## Wars Change Attitudes

The exigencies of World War I brought about a change in attitude, a number of leading actuaries, such as Sir Alfred Watson, then Government Actuary, and Elderton, being employed in government departments on statistical duties — a phenomenon that recurred on a wider scale in World War II. By the 1930's, a few pioneers were achieving self-expression outside the conventional fields, e.g. in statistical branches of government departments, in the London County Council, and on the financial and statistical side of transport.

But, up to World War II, evolution proceeded at biological speed. As late as 1925, there were but two actuaries employed in or about the London Stock Exchange. By July, 1967, there were 40. There were none in commerce or indus-

try (whether private or public) in 1925, but by last July there were over 60, and the numbers in whole-time consulting practice had risen from 21 to 133. The total number of active F.I.A.'s and F.F.A.'s at home and abroad rose during the period 1925-1967 from 464 to 1,362, of whom roundly 400 (including whole-time consultants) were employed outside the life assurance area, compared with 66 in 1925.

The areas of commerce and industry where members of the Institute are now engaged include banking and merchant banking; managerial consultants; general merchants and agents; investment trusts; property; nationalized road and rail transport; docks; marine insurance; manufacturing industry, such as heavy and light engineering, both mechanical and electrical; chemicals; oil; artificial fibres; printing; food; instruments and data processing equipment; and retail trade (including food and clothing). Apart from the Government Actuary's Department, at least ten government departments in Great Britain now employ actuaries, usually in senior posts, while in the Commonwealth their employment in government service is widespread.

## Syllabus Reflects Demands

The post-war syllabus for the Institute Fellowship reflected in considerable measure the latter-day demands on the profession. It has recently been reviewed. As before, there is a Preliminary examination, from which exemption can be secured only by those who have attained a suitably high level in school mathematics or who have an appropriate university degree. The subsequent examinations are now to be in two stages, Intermediate and Final. All must still take "Statistics" and "Finance and Investment" at the Intermediate. At the Final, all must take "Life Office Work," "Pension Funds and Friendly Societies," and "Finance and Investment." One of these subjects must be taken at "More Advanced" level, unless "More Advanced Statistics and Operational Research" is offered.

As in the past, exemptions from particular papers may be accorded to those holding relevant Honours Degrees in Mathematics, Statistics and Economics. There are no post-graduate examina-

## EDUCATION AND EXAMINATIONS

The six actuarial organizations on the North American continent have now formed the Joint Committee on Review of Education and Examinations. This Committee by the terms of the resolution adopted by all the participating organizations is:

- (1) charged with a continuing review of policy matters relating to the education and examinations of actuaries, and
- (2) empowered to study these matters and, when appropriate, make recommendations on them to the governing bodies of the organizations.

Such terms of reference cover a wide field affecting the component bodies in many ways and the particular problems of each will be examined. The Committee also took heed of a general and common problem which is best stated in the words of the Committee Minutes as follows:

"The Joint Committee should consider whether the basic core of actuarial education can be extended further. The theories on which actuarial work is based are common to a wide variety of actuarial specialties. For example, workmen's compensation insurance is quite similar in principle to disability or pension plan coverage. There is, however, a tendency for the differences arising in practical applications to be perhaps unduly emphasized in the education process. Related to this is the need for further standardization of actuarial notation and terminology. Many differences between the life and casualty fields reflect confusing terminology rather than different concepts. The increasing association of life and casualty companies highlights the importance of common core education and elimination of unnecessary distinctions between the actuarial fields."

H. Raymond Strong is Chairman and Julius Vogel Secretary.

tions, but in these days the need to keep up-to-date is clamant.

If the number of actuaries needed in life offices may not expand as in the past, there is ample scope for employment in the directions indicated. How right Farr was in 1852!