



SOCIETY OF ACTUARIES

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## MORE ON THE EDUCATION OF THE ACTUARY

by Bert A. Winter

Arthur Pedoe's comments on Specialization (*The Actuary*, October 1963) are pointed up by the issue of new examination syllabi by the Institute of Actuaries and the Faculty of Actuaries. It is interesting to compare these and also to review them both in the light of the Society's Syllabus of Examinations bearing in mind the different educational backgrounds of the United Kingdom and of the United States. The Canadian background might be described as a composite of the two.

Basically the Institute examinations are geared to specialization in its Fellowship Examination, while the Faculty adheres to its traditional approach of giving the students a thorough grounding in all phases of actuarial work. We are sure that the Faculty had carefully considered the possibility of change but decided that their present approach was still satisfactory.

The Society, like the Institute, is committed to specialization and in the case of the Society the circumstances obtaining on the North American continent would certainly seem to justify a continuation of this course. Whether the end result is any different between the Institute and the Faculty is not for an outsider to judge.

### Syllabi Compared

The contents of the two syllabi are interesting. The Institute points out that one of the objectives of the changes is to adapt the examinations to current conditions, and to this end the preliminary examination has been adapted to the new mathematics, while in subsequent examinations there is:

- (1) a reduced emphasis on finite differences and an increased emphasis on numerical analysis;
- (2) the introduction of the basic principles of computer programming;
- (3) a change in the approach to probability and statistics towards a more statistical and unified treatment of the subject;
- (4) provision for the inclusion of the actuarial aspects of non-life insurance.

### BERT A. WINTER

There are times when we wish that the Society had decorations to bestow on members who have made a great contribution to its work.

Bert Winter would undoubtedly qualify for such a recognition of the highest order because of his long service, first on the Education and Examination Committee, and latterly as a member and subsequently as Chairman of the Advisory Committee on Education and Examinations.

His work has been in an area where all too often the laborers are "unhonored and unsung" even though such work is building the future of the Society.

Bert now retires from the Chairmanship of the Advisory Committee and we would take this opportunity to say "Thank you." To his successor, Edwin B. Lancaster, another educational stalwart, we say "Welcome."

The Institute in the final examinations has the specialization subject of Advanced Statistics. The subject of Operations Research is now introduced in this subdivision. The Institute also decided to reduce the emphasis on various subjects in the current syllabus. In the new syllabus there will be less emphasis on compound interest, on demography, on life interests and reversions (transferred to the Investment Section), and on social insurance. The syllabus, however, will still include the actuarial aspect of these items.

On the other hand, the Faculty will continue to examine in finite differences and demography. They apparently agreed with less emphasis on compound interest, but were of the opinion that such subjects as computer programming, operations research, and management studies were of a post-graduate nature.

The problems faced by the Advisory Committee and the E & E Committee of the Society are not dissimilar to those of the Institute and Faculty. In fact the purpose of these Committees is well stated in the Institute's objectives . . . "to adapt the examinations to current conditions and to reduce the

time taken to qualify while maintaining the standard of the Fellowship qualification."

The Society reviewer of these syllabi cannot help but comment upon the inclusion in both of the subjects of Finance and Investment and cannot help but wonder if the time has not come to enlarge the Society's syllabus on these topics. The introduction of separate accounts and investment year methods into life office operation suggests that it would be well for the actuary to have a larger interest and a larger say in financial matters. The consulting actuary on pension funds has to be involved in the investment side if he is going to do a satisfactory job.

Finally, the Joint Committee on Review of Education and Examinations has already included in its deliberations a review of these two syllabi. □

### University of Connecticut

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Contingencies; Construction of Tables, Sources and Characteristics of the Principal Mortality and Disability Tables and Demography and Elements of Graduation; General Accounting, Life Insurance Accounting, including Valuation of Liabilities; Selection of Risks, Gross Premiums, Expense Analysis, and Analysis and Distribution of Surplus; Group Insurance, Employee Retirement Plans, Individual Health Insurance, and Social Insurance.

The actuarial faculty, consisting of eight members of the Society of Actuaries and others, feels it has an unusual opportunity to offer actuarial education to interested part-time students.

The Actuarial Advisory Board is composed of the following Fellows of the Society: LaVerne W. Cain, Sanford W. Scott Jr., William D. Berg, Joseph F. Crowe, Robert K. Dickson Jr., Robert A. Meredith, and Theodore S. Rosky. Mr. Cain is Chairman and Mr. Scott is Secretary.

The companies with which students in the Actuarial Science Program are or have been affiliated include: Aetna Insurance Company, Aetna Life and Casualty, Connecticut General, Connecticut Mutual, Hartford Insurance Group, Massachusetts Mutual, Monarch Life, Phoenix Mutual, State Mutual of America, and Travelers. □