



SOCIETY OF ACTUARIES

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### Looking for Offer(s)

If you are interested in writing a PENSION TEXT BOOK for actuarial exam preparation, please *immediately* get in touch with John O'Connor at Society headquarters. Subjects to be covered: Elementary & Advanced Pension Math; U.S. & Canadian Law; Practical Aspects.

### Slightly Perfect

(Continued from page 2)

ought to write a book about them. Malcolm-Smith took up the challenge and went to work on such a book. He and I had several conferences in his quest for background, although I don't recall that I contributed anything to the story plot that eventually evolved. He gave the book the name *Slightly Perfect*. When, in the 1940's, it was made into a musical comedy and a movie, the name was changed to *Are You With It?* This I understand to be an expression used by traveling carnival people to distinguish a fellow member from an outsider. (The theme of the plot was that a young actuary, at the Associate level, in chagrin at having made an arithmetical error, quit his job and joined a carnival).

"Quite naturally the book was dedicated to Heywood Broun, but in acknowledgement of such help as he thought I had given, George named his hero Haskins."

James E. Hoskins

Jim conceded that at least one item in the description fitted him—he used to walk to and from work, 4 miles each way (but not counting the steps). The rest was presumably a composite picture of actuaries as Mr. Malcolm-Smith observed them. We are indebted to Mr. Malcolm-Smith for permission to reproduce his wry definition. □

*Ed. Note: A modern version of the life-expectancy rule is: Subtract the present age from 77 (men) or 84 (women), and reduce the answer by 10%. This rule gives accurate values for  $e_x$  for United States 1976 population mortality from age 0 up to middle 60's.*

### BOOK REVIEW

*Problem Solving in Life Contingencies*, Brian Bambrough, F.S.A., 190 pages (approx.), 1979. The book may be ordered directly from the author at 206 Cedar Hollow, Rocky Hill, CT 06067. The price is \$12.50 U.S. or \$14.50 Canadian.

by Mitchell R. Katcher

Efficient use of time is optimal strategy for exam takers. For the students taking the new Parts 4B and 5A, this can best be achieved by plenty of problem solving, reducing the excessive reliance on memorizing.

For the student who finds that Jordan's text and the *Northeastern University Problem Manual in Life Contingencies* do not provide enough problems, or that a new approach or supplemental material will enhance understanding, Brian Bambrough has written *Problem Solving in Life Contingencies*. As the author, an experienced teacher, writes in the preface, "This book does not seek to teach the subject matter . . . Rather, its purpose is to help a student who already knows the material to solve multiple choice problems."

Principles underlying broad classes of problems are identified, and specific step-by-step methods for solution are presented. For example, all annuity and insurance problems are broken down into three elements: the benefit, the probability that it will be paid, and the compound interest factor. When this analysis is applied to  $\bar{a}_x$ , it can be seen that the benefit is  $dt$ , the probability it will be paid is  ${}_t p_x$ , and the compound interest factor is  $v^t$ . Hence, the value of that part of the benefit paid between  $t$  and  $t+dt$  is  $v^t {}_t p_x dt$ . Integrating this expression gives the desired value.

The reader is given an alternate approach for solving stationary population problems as follows: at any instant in a stationary population there are  $l_y dy$  people of exact age ( $y$ ), who can be treated as a survivorship group. After a suitable diagram is drawn, the integrals can be set up, limits derived, and the solution quickly obtained. Though lacking the Veit method's elegance, this process can be applied easily and to a wider range of problems.

The highlight of this book is its section of tests. Challenging multiple choice

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On page 423 of your Year Book you'll find help with some of your questions. Reading Lists compiled by the Society's Continuing Education Committee can be had free from the Society office. On page 424 it tells what subjects these cover.

Even though not always up-to-date, these may still be the answer to an actuary's prayer.

R.E.H

problems are given, along with a basis upon which to judge one's performance. Taken under exam conditions, these tests can sharpen one's competitive edge. The book contains also a description of a useful generalized technique applicable to Jordan's Chapter 16 (A Generalized Model), and helpful treatments of multiple and secondary decrement tables.

Since the author asserts that 90% of the student's time should be spent doing problems, it is disappointing that he has not given more problems to be solved.

An attempt is made to reduce to a mechanical process problems of the type, "Find the probability that ( $x$ ) will die before ( $y$ ) and not survive ( $z$ ) by  $t$  years or more." This process, requiring that a diagram be drawn and that integrals be judiciously manipulated into easily recognizable forms, invites confusion rather than clarity.

The author stresses the "elimination" method, which purports to obtain an answer to a multiple choice problem without solving the problem itself. Although a student *may* be able to increase his score slightly by this approach, it has its drawbacks . . . it may be time-consuming and yet be less accurate than direct problem solving.

It must be realized that Bambrough's book is meant to supplement Jordan, not to replace it. Used in this way, *Problem Solving in Life Contingencies* can be a valuable tool for the students taking the new parts 4B and 5A. □