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Revision of *Actuarial Mathematics* reflects changes in profession



Actuarial work is changing with the globalization of business and technological advances. The second edition of *Actuarial Mathematics*, to be published this month, recognizes and addresses some of the new ways of working.

First issued in 1986, the textbook is used in SOA Courses 150 and 151 and is on the recommended reading list for Seminar 152.

“We’re in a technological revolution, and we have to keep moving ahead with new ideas. Time marches on,” said James C. Hickman, one of the book’s five original authors and one of the three who revised the text.

Among the notable differences in the revised text are a new chapter on stochastic models of interest rates and the omission of commutation functions, no longer a staple of actuarial calculations. In the new text, readers are instead asked to use current software to complete exercises that illustrate actuarial calculations.

Also, said Hickman, “The whole approach to regulation is entirely different in the second edition. Specific insurance regulations and practices in Canada and the United States are relegated to examples and exercises. The basic issues that motivate regulation and practice survive.”

He added, “We’re going international — this text has an audience in Mexico, Asia, and perhaps elsewhere. There are new ideas, new commercial practices. One of them is in the pension area: the decline of defined-benefit plans and the rise of defined-contribution plans. We didn’t change it; the world did. But we must acknowledge these types of changes in our work.”

In general, “we attempted to eliminate some of the products people have lost interest in and include current products,” said Newton L. Bowers, another of the revised text’s authors. “Retirement income policies, also known as income endowment policies, have been virtually

unknown for 15 years. Those and others may have historic interest, but that isn’t the focus of *Act Math*.” New products include accelerated benefits for terminal illness and long-term care.

Donald A. Jones, another of the revised text’s authors, observed, “A lot of teaching is done by professors doing research because you can’t get cutting-edge developments into print very quickly. We know that the publication process keeps us from being as current as everyone would like, but we believe the new edition of *Act Math* will be useful for teachers and students. It offers much of the latest thinking in actuarial science.”

Copies of the 780-page book will be available July 1. The cost is \$75, and the book can be ordered through Cathy Cimo in the SOA Books Department (phone: 847/706-3526; fax: 847/706-3599).

Next holder of Bowles chair announced

The third holder of the Thomas P. Bowles Jr. Chair of Actuarial Science will be Patrick L. Brockett, Ph.D., director of the Risk Management and Insurance Program at the University of Texas at Austin.

As the chairholder, Brockett will lead the third Bowles Symposium on March 26-27, 1998. Its focus will be genetic technology’s impact on underwriting.

Brockett received the 1991 Halmstad Prize Award from Actuarial Education and Research Fund (AERF) for his *Transactions of the Society of Actuaries* (TSA) paper, “Information Theoretic Approach to Actuarial Science: A Unification and Extension

of Relevant Theory and Application.” He was co-author of the 1996 SOA Annual Prize winning paper published in the TSA, “Actuarial Usage of Grouped Secondary Data.” His research has been awarded similar honors from the American Risk and Insurance Association, the American Statistical Association, and the International Insurance Society. His publications include several books and monographs and more than 100 journal articles. In addition to directing the Austin program, Brockett is holder of the Gus S. Wortham Memorial Chair in Risk Management and Insurance at the university’s graduate business school.

The Thomas P. Bowles Jr. Chair of Actuarial Science was established in 1988 to honor the renowned actuary for his contributions to the profession and his role in instituting the actuarial science program at Georgia State University. The chair’s purpose is to contribute to the profession’s vitality by addressing issues in the changing and complex environment in which actuaries practice.

Earlier chairholders were Hans Bühlmann, Ph.D., professor of mathematics at the Swiss Federal Institute of Technology, in 1995, and actuary James C. Hickman, Ph.D., professor emeritus and dean at the University of Wisconsin School of Business, in 1996.