



SOCIETY OF ACTUARIES

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they relate to your mission.

Prioritize activities based on importance to your mission versus urgency of the activity.

- 4) *Think "win-win or no deal"* — Understand that we live in an interdependent world. We must cooperate with others to succeed. Look for alternatives that allow everyone to win. If a win-win option cannot be found, agree to disagree with no resentments. This will leave the door open for future win-win deals.
- 5) *Seek first to understand, then to be understood* — Always diagnose a problem before prescribing a solution for it. "Most people listen, not with the intent to understand, but with the intent to reply....By seeking to understand, we gain influence in the relationship." We may see another, more effective solution.
- 6) *Synergize* — "Synergy lets us discover jointly things that we are much less likely to discover by ourselves." We communicate with respect and creativity, while looking for a mutually satisfying solution with people who see the world differently. "Relationships that join people of different abilities and styles of thinking are opportunities for synergy."
- 7) *Sharpen the saw* — Take small positive daily steps to maintain and increase your personal production capabilities. This includes physical, mental, emotional/social, and spiritual exercises. Dedicate at least one hour a day to this activity.

The results achieved by any paradigm can be improved by comparing periodically the paradigm's assumptions with the most recent information available about the world in which the paradigm operates. Covey says, "It doesn't matter how good your behavior is or how good your attitude is if your paradigm is flawed." In a world of ever-faster changes, paradigm shifting becomes a necessary skill for the actuary or any other professional.

For more information, attend Teaching Session 8 on "Paradigm Shifts," offered Monday, October 26, at the Society of Actuaries' annual meeting in Washington, D.C.

Jon Rosenblith, associate actuary of Managed Care Product Development at Bankers Life and Casualty Company, is a member of the SOA Committee on Management and Personal Development.

Society publishes 2 new books

The Society of Actuaries has published two books that are now available.

Insurance Risk Models

This book by Harry H. Panjer and Gordon E. Willmot was funded by the Actuarial Education and Research Fund (AERF). It examines the mathematical modeling of the frequency and the severity of insurance losses, as well as the resulting total losses for a block of insurance business. The applications in all branches of insurance relate to the pricing and solvency of insurance and reinsurance. The book provides theoretical and practical justification for many mathematical models. The 442-page hardcover book sells for \$35 (U.S.). It is on the SOA syllabus for the Intensive Seminar on Risk Theory, Course 152.

Panjer and Willmot teach in the Department of Statistics and Actuarial Science at the University of Waterloo, Ontario, Canada. Panjer received his bachelor's, master's, and doctoral degrees in actuarial science and statistics from the University of Western Ontario. He has devoted most of his career to teaching and research in actuarial science at the University of Western Ontario, the University of Texas at Austin, and the University of Waterloo, where he is a professor. Willmot received his bachelor's, master's, and doctoral degrees in actuarial science and statistics from the University of Waterloo, where he is an associate professor. His research is in the areas of risk theory and other related areas such as statistics and queueing theory.

Options and the Management of Financial Risk

This book by Phelim P. Boyle introduces some basic concepts in modern investment finance. These concepts not only are relevant to the discipline of actuarial science but also provide the foundation for a wide spectrum of applications in the finance field. These models provide a theoretically sound framework for dealing with uncertainty and are based on strong economic intuitions. This 210-page softcover book will sell for a price yet to be determined.

Boyle holds the Harry A. Brandt Distinguished Chair in Financial Markets and Options at the University

of Illinois at Urbana-Champaign. He previously spent nine years at the University of Waterloo. He gained actuarial experience in Ireland and the United Kingdom before teaching at the University of British Columbia, Canada. Boyle was educated at Queen's University Belfast and received a Ph.D. in theoretical physics from Trinity College, Dublin.

Early release copies of TSA papers

The following papers have been accepted for publication in Volume 44 of the *Transactions*. Members who would like an early-release copy before it is published in a preprint should send \$5 for each paper to the SOA Books and Publications Department.

"A Practical Guide to Interest Rate Generators" by Sarah L. Christiansen

A new standard valuation law in the United States requires an actuarial opinion of asset adequacy. Often this opinion will be based on cash flow testing to assess the C-3 risk. Selection of interest rate scenarios is a critical part of any model used to perform cash flow testing. This paper discusses various methods of obtaining interest rate scenarios with particular emphasis on those methods that produce stochastic scenarios.

Several previously published generators are reviewed, along with two new generators. All easily programmable generators are parametrized for appropriate adjustments of bounds. A method of comparing generators was developed to aid an actuary in choosing a generator and to establish statistically that the generators reviewed are all distinct.

"Internal Rate of Return as an Evaluator of Tax Planning Strategies" by Edward L. Robbins and Kenneth A. LaSorella

The rapid evolution of tax law has seen a host of ambiguities and opportunities spring up, often with tax reserve issues, an area where large planning issues commonly are encountered. Since 1988, the industry also has confronted a series of both

continued on page 16 column 1

Annuities cont'd

ability to manage assets and liabilities. Face-to-face meetings are the best way for plan sponsors to evaluate an insurer's capabilities and commitment to this line of business.

Felix Schirripa is vice president, Metropolitan Life Insurance Company.

TSA cont'd

tax laws and statutory requirements that tend to push statutory liabilities and tax basis liabilities further apart.

Planning activities that bring tax basis liabilities and statutory liabilities closer often are valuable tools. Many companies would find certain tax planning activities desirable except for the statutory surplus strain that such activities often cause. This paper attempts to provide a means of evaluating those strategies for both stock and mutual life insurance companies under current law by computing an internal rate of return to measure their value. It provides guidance in computing a standard against which to measure that rate of return.

"A Practical Algorithm for Approximating the Probability of Ruin" by Colin M. Ramsay

A simple and practical algorithm for approximating the probability of ruin is developed. The approximation has an attractive feature in that it uses only the first four sample moments of the claim size distribution and the premium loading factor. The key concept is to fit a second order mixed exponential or a gamma distribution to the pdf $(1-P(x))/p_1$ where $P(x)$ is the claim size cdf and p_1 is the mean claim size. This approximation is compared to exact results and to the Cramer-Lundberg, Beekman-Bowers, and de Vylder approximations. Its accuracy generally is equal to that of the Cramer-Lundberg approximation and superior to the other two.

In memoriam

George Y. Cherlin FSA 1955,
ACAS 1961, MAAA 1965,
FCA 1982, EA 1976

Maurice E. Comfort FSA 1948,
FCIA 1965

Roderick Fraser-Petherbridge
ASA 1950, FIA

E&E developments cont'd

where there are few candidates.

Recently, the Society retained a consultant from the Rand Corporation who is an expert in professional education. He has had experience with many other professional organizations. His recently completed report includes several valuable ideas that we will pursue in areas such as examination construction and validation of pass-mark requirements.

The system will continue to be driven by the very valued efforts of E&E committee volunteers. At the same time, we will rely more on full-time Society staff, including an education professional and four FSAs. We will find the right mix of resources to maintain the E&E system as one of the finest professional educational systems in North America and as one of the key strengths of our profession.

Bruce Moore is Vice-General Chairperson of the Education and Examination Committee, Chairperson of the Investment/Financial Task Force, and senior vice president and chief financial officer, Prudential Insurance Company of America.

New E-Mail directory

William S. Jewell at the University of California in Berkeley is organizing an Electronic Mail (E-Mail) directory "to improve communication and encourage collaboration across the insurance research community." Using the chain letter approach, he has collected almost 80 E-Mail correspondents' names, affiliations, and addresses from 19 countries, mostly academics, using Internet, Bitnet, or their national equivalents.

Jewell asks that if you are part of the actuarial science, insurance mathematics or economics, risk theory, or similar community and want to participate, please send an EMAX to him at: <wsj@euler.Berkeley.edu>. Please give your full name, academic or business affiliation, address, and the external form of your E-Mail address. He especially encourages participation from governmental bureaus, research institutes, and insurance companies that are using commercial networks.

Dear Editor:

Head of Georgia State program protests withheld exams

In October 1985, the Society of Actuaries announced the implementation of a forward-thinking, but long overdue, policy on the distribution of "all multiple choice examinations" to its students. While this promise never was truly fulfilled (only four of more than 30 Course 100 and 110 exams for 1986-1991 have been released), it nevertheless provided an educational benefit of inestimable proportions to higher-level actuarial students during the six-year period.

With no prior notice, the Society withheld distribution of its November 1991 examinations. Indications are that such a policy is being continued in 1992. On behalf of many actuarial students sorely disappointed with that policy, I would like to register a strong protest.

In the academic world, especially at the undergraduate level, students often perceive that an antagonistic, competitive relationship exists between themselves and their instructors. Effective teachers work diligently to show their students that they share the ultimate goals of learning and thorough understanding. This antagonistic relationship seems to have existed for years, at or just below the surface, between the Society of Actuaries and its students. This previously was largely because of the secrecy of the examinations and the sense that the correlation between textbooks and other study materials and the exams themselves was not as high as it should have been. For six years, the Society eliminated the source of this criticism by publishing the exams.

The students' reaction to the recent change is predictable. Many students believe that examiners simply are unwilling to construct new tests with each exam administration. Exacerbating the effects of the policy change is the Society's attempt to implement a "gag rule," by which candidates are coerced into vowing not to discuss the examination with anyone, even after all the exams have been completed. This rule seems not only to be of dubious legality, but also is certain to increase antagonism toward the Society. Further, such a "gag rule" is certain to be ignored by many students.