



SOCIETY OF ACTUARIES

Article from:

The Actuary

December 1979 – Volume 13, No. 10

BOOK REVIEW

The Future of Risk, pp. 219, published by the Risk Studies Foundation, 205 East 42nd Street, New York, NY 10017, \$15.

by *Geoffrey N. Calvert*

This book contains the papers that were to have been delivered at a seminar in New York in the late fall of 1978. The seminar was never held, but the papers are available in this form.

Each section is written in the style of its author, and no editorial steps have been taken to introduce uniformity of treatment or style or to open or conclude the series. It is, therefore, natural that this volume, while containing much that is valuable and pertinent to the work of actuaries, risk managers, and those who work with human and financial values in a world of change and uncertainty, seems incomplete and ill-assorted.

Subject to this limitation, the serious reader will find in this book many nuggets of information, and a variety of innovative and challenging viewpoints and policy suggestions. Following is a sampling from its 11 sections:

Orville Freeman, discussing geopolitical and global economic risks, points to the rise of terrorism in the presence of a widening gap of wealth and poverty between the richest and poorest nations. Nine hundred million humans, living in grinding poverty and always hungry, can participate through television in the lives of the affluent while nuclear weapons proliferate—a disorienting and explosive situation.

Prof. Dan R. Anderson, in a competent article, covers energy-related risks in which the scale of potential losses and disasters has escalated far beyond the insurance market's capacity. As power plants and tankers have grown (a billion dollars for a nuclear power plant and potential damage of many times this amount from a serious accident), the "law of large numbers exposed to risk," which underlies the normal insurance principle, is negated. With sufficient insurance unavailable, some corporations are forced to self-insure at the top end of the risk (e.g., above a \$250 million limit for an exposure in the billions).

R. Morton Darrow, commenting on health services, urges the insurance in-

dustry to keep up with the times by providing product liability coverage related to new drugs and medical hardware, electronic medical record keeping, incentives and rehabilitation services to get disability claimants back to work, life care for retirees, and innovative and competitive approaches to medical cost control.

Anna M. Rappaport, FSA, deals with social changes and the challenges confronting those who design employee benefits in the context of a needed reversal of the early retirement trend, assertion of women's rights, job-sharing, sabbaticals, periodical re-education, performance evaluations, demotions, and pressures to index private pensions, to choose the time of death, to engage in multiple careers, to continue medical benefits during sabbaticals, to live under new and changing lifestyles.

Rick J. Carlson, J.D., focuses on the rising crime rates and falling scholastic standards among the young, tracing these effects to a combination of stressors including disintegration of family life, environmental pollution, nutritional and dietary factors, degradation of lifestyles, drugs, television, lack of exercise, and other stressors which interact and compound.

Cynthia Huston covers computer crime, concluding that, where knowledge is power, our growing dependence on computers exposes us to crimes on a scale and at a speed never dreamed of — a frightening vulnerability.

William C. Ashley describes how Sears Roebuck seeks to minimize "organization risk" by a systematic, ongoing study of economical, social, and similar trends which together provide the context within which the company operates.

Three papers by Schneider, Goldberg, Kunreuther and Kleindorfer, deal with climatic risk, the technical uncertainty of risk assessment (using Denver's air pollution as an example), and the problems of coping with natural disaster. Most disturbing are the uncertain consequences of continuing to burn fossil fuels, thus releasing CO₂ into the air. Man has already caused a 10% increase in atmospheric CO₂—one-half in the last 20 years—and this is projected to increase to 25% by 2000 A.D. and 100% by 2050. The resulting "greenhouse effect" might cause a 2-3° increase in temperature, changing the

whole character of vast areas of the earth, flooding coastal areas, and inundating 10 trillion (1977) dollars worth of property (including one-third of Florida).

Robert Theobald's section ends the book with a rambling discussion of the trend to centralization and giantism, an appeal to human values, and an interesting observation that, unbelievably, there is no theory of risk in economics—yet each of us must deal in business and in private with risk and uncertainty. "The Chinese are right," he closes. "Crises bring not only danger but also opportunity."

This book does not cover all the major risks one can name quite readily. For example, there is no reference to the possible impact of genetic engineering, predetermination of sex, prolongevity, global overpopulation, energy exhaustion, space colonization, deforestation, the Rasmussen report (on nuclear accident probabilities), the availability of food or water, laser technology, solar satellites as a source of energy, or new forms of war. The coverage provided, while interesting, informative, and insurance-oriented in places, is neither complete nor well balanced. But it is well worth reading. □

**PACIFIC INSURANCE CONFERENCE,
BANFF 1979**

by *Archie R. McCracken*

From 17 countries to the Canadian Rockies last June came 224 executives of life companies and related organizations, many with their wives, to enjoy P.I.C.'s 9th biennial conference—a stimulating program, good fellowship and the beautiful setting.

The major delegations were from the United States (56 executives), Canada (52), Japan (32), Australia (28), and the Philippines (16). The theme was "Change and Innovation." At the four business days 35 papers on the following topics were discussed and supplemented:

- I. Change and Innovation in Legislation and Consumerism
- II. Change and Innovation in Product Design
- III. Change and Innovation in Marketing

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SUMMARY NON-ROUTINE BUSINESS BY BOARD AND EXECUTIVE COMMITTEE, 4 MONTHS TO OCT. 31

by Myles M. Gray, Secretary

At meetings of the Executive Committee on Sept. 11 and the Board of Governors on Oct. 20-21, the following non-routine business was transacted:

(1) **Administration.** Executive Director John O'Connor presented his plans for the Society office, which he has reorganized into these five functional areas:

Educational Department, managed by the Director of Education;

Examination & Educational Support Services Division (Bernard A. Bartels, Mgr.);

Communications Division (Linda M. Delgado, Mgr.);

Finance & Administration Division, managed by our newly hired Director of Finance, Charles Stanley;

Research Division, to assist our Research Policy Committee.

Several actions by the Administrative & Finance Committee to improve internal operations were approved.

Elimination of academic degrees from the year book membership listing was approved.

(2) **Election Process.** An ad hoc Committee on Elections to review the entire election process was authorized. Also the by-laws were amended to provide for nomination of not fewer than three (formerly four) candidates for President-Elect, and not fewer than 12 (formerly 18) for elected Board member.

(3) **Financial Position.** In view of the Treasurer's report showing a substantial deficit for fiscal year 1978-79, the Executive Director and the Administrative & Finance Committee were requested to propose corrective measures.

(4) **Reorganization of the Profession.** (Members have been notified of defeat of the proposal to amend Article III—see *The Actuary*, October 1979 and a separate letter from the Secretary.) The Committee on Reorganization (Walter N. Miller, Chairman) will recommend possible future actions.

(5) **Special Interest Groups.** (This is separately reported in this issue—Ed.)

(6) **Membership Classes.** The question of appropriate membership

classes below Fellowship, on which a special committee has reported, will be considered by the Board in January.

(7) **Education and Examinations.** Transitional credits under the new syllabus, for completion of examinations of other bodies, were approved as follows:

Credit for Part 7-E (U.S.) Section A, upon successful completion of the Pension Enrollment examination (EA-2) in 1977 or 1978.

Credit for Part 3 and fractional Part 4B, upon successful completion of the Casualty Actuarial Society's Part 4 in May 1979 or before.

A resolution of appreciation to Warren Adams, former Director of Education, was adopted unanimously. Mr. Adams continues pro tem as part-time educational consultant.

(8) **Professional Conduct and Discipline.** Fellows will soon be asked to vote on amending Article VII of the Constitution; the major change would be that the Board rather than the Committee on Discipline would reprimand a member.

The Board, in conjunction with the other actuarial organizations in North America, has delegated responsibility for drafting professional conduct guides and opinions—to the Academy for U.S.A. and to the Canadian Institute of Actuaries for Canada. Such proposals will be subject to acceptance by the Board of each organization, and each will remain responsible for its own disciplinary actions.

The Board also adopted an Opinion on Advertising recommended by its Committee on Guides to Professional Conduct.

(9) **Publications.** Approval was given to accept discussions of papers by non-members for publication in the *Transactions*. New procedures for (a) appeal on rejected papers, and (b) copyrighting of the *Transactions*, were established.

(10) **Meetings.** Meetings in 1980, listed elsewhere in *The Actuary*, were approved. The 1981 spring meeting in New York is to be a special topic meeting on "Public Involvements of the Actuary." □

Pacific Insurance Conference

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IV. Change and Innovation in Administration and Investments

Canadian and United States authors were: (I) J. O. Darvish, G. M. Devlin, R. M. Hammond, E. J. Moorhead, B. T. Newton Jr.; (II) M. L. Hephner, R. I. Mehr, N. N. Stanley, C. L. Trowbridge; (III) R. Bray & C. C. McLeod, R. E. Carlson, M. B. Hutchison, M. T. Lake, J. Marchand; (IV) T. A. DiGiacomo & R. B. Leckie, L. G. Merritt, W. B. Pardue.

P.I.C.'s format for presentation of papers is one that might well be tried elsewhere. Authors are seated on the platform while their papers are on the agenda—but each paper is introduced by somebody else who highlights the portions he considers to be of widespread interest, or with which he disagrees. That opener raises questions, which the author is later invited to answer, whereupon other questions and discussion from the floor are welcomed.

Each afternoon except the last provided several workshop sessions to continue discussion of that morning's theme. It was stimulating to find many similarities but also some sharp differences in the events and opinions in different countries.

P.I.C. has always been strongly supported by actuaries. This year Ian Michie did Canada proud as General Chairman, as also did George N. Watson as Organizing Committee head. The staff work throughout was of high quality.

Highlight of the closing ceremonies was the announcement of the rather badly kept secret that the 10th P.I.C. will be in Manila in 1981. A word to the wise—book early!

If you would like a set of the formal papers, send \$10 to E. J. Moorhead, Secretary P.I.C., 2594 Woodberry Drive, Winston-Salem, NC 27106. □

Deaths

Seth Hastings FSA 1948

Mrs. Lena B. Purcell FSA 1964