



SOCIETY OF ACTUARIES

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RESEARCH CORNER

Research inserts in this mailing

The Society of Actuaries (SOA) Research Department maintains a list of actuaries who are interested in research and would like to participate on project oversight groups. Those interested in adding their names or who need to update their information should complete the Directory of Actuarial Researchers insert in this mailing and return it to the Research Department at the Society's office.

Also in this mailing is a suggestion form to help the research committees identify potential research topics to be promoted and funded by the Society of Actuaries and its Sections. We need your suggestions as members of the actuarial profession. Please fill out the enclosed suggestion form and return it to the Research Department.

Research reports to be published

Patrick Brockett's paper on "Operation Research Methods" addresses the use of operations research for insurance company problems such as insolvency prediction. The final report has been submitted to the *Transactions* of the Society of Actuaries.

Final reports from the Direct Marketing Persistency and Mortality and the Credit Life Insurance research projects have been received. Both reports are scheduled for publication in the next *Reports* volume which should be available in early 1996.

The final reports on "Public Employee Retirement Plans Research: Experience Studies, Valuation Reports, and Unfunded Liabilities" and "Public Financial Guarantee Programs," to be published as monographs, are scheduled to be available from the SOA Books and Publications Department in December.

The Boundaries of Risk Project Oversight Group has approved the

final report submitted by Donna Claire, researcher for the first phase of the project. The report will be available through the SOA Books Department and will be published in the *Reports*.

The Risk Adjustment Data Base Collection and Analysis project's final report has been received and will be available as a monograph through the SOA Books and Publications Department.

Research reports now available

Edward (Jed) Frees presented the results of the Methodology to Deal with Dependencies on Multi-Life Risks project at the August 1995 meeting of the American Risk and Insurance Association. (See *The Actuary*, May 1995, p. 15, "Research Studies Multiple Lives Dependency Risk in Annuities," by J. Carriere and E. Frees.) A photocopy of the paper is available free of charge from the SOA Research Department. The final paper has been accepted by the *Journal of Risk and Insurance* for publication.

The Society of Actuaries and the Life Insurance Marketing and Research Association (LIMRA) have completed a report on Universal Life. This report includes universal life results that have never before been published on an industry basis. Results are shown for several different policy, agent, insured and product characteristics. Copies of the report are available for \$595 from LIMRA's InfoCenter Service Desk (800/235-4672).

Grants go to 5 new projects

The first grant program sponsored by the Committee on Knowledge Extension Research has funded five new research projects:

- A report on the project to examine the characteristics of Continuing Care Retirement Community (CCRC) data and methods of analysis is being reviewed. This project also will test stochastic model assumptions, assess data needs, and provide ideas for the future.
- The Financial Markets Approach to Valuation project is exploring practical methods for determining market

values of derivative securities such as options on stocks, options on bonds, and mortgage-backed securities.

- Work is proceeding on development of a stochastic model for an optimal asset liability management process and presentation of a numerical method for practical use.
- The purpose of the Statistical Methods - Count Data project is to develop a method for combining count data from different sources using maximum likelihood procedures. Results should be useful in modeling loss frequency experience.
- The project on Empirical Likelihood in Insurance will introduce empirical likelihood methods to actuaries. The intent is to show how to test hypotheses and construct confidence intervals for various functions, without any parametric assumption, when certain information is known about the data.

Financial and investment management

Clarence Arnold is the researcher for the definitional phase of the Actuarial Aspects of Currency Risk project, which will develop an understanding of the nature and behavior of currency exchange fluctuations and attendant risk on financial results. This phase is expected to be complete before the end of 1995.

Data requests have been distributed to potential participants in a follow-up to the study of 1986-89 Credit Risk experience for both Commercial Mortgages and Private Placements. This follow-up will include experience through 1994. At least 15 companies have stated they plan to participate in the Commercial Mortgage study, with at least 18 companies planning to participate in the Private Placement study. A report on the experience of Private Placement through 1992 is expected before the end of 1995.

Health benefit systems

The Project Oversight Group is reviewing the final report of the Catastrophic Claims Health Data Base project. Plans for distributing the report and study data are underway.

Life insurance

The purpose of the Option Pricing Models as Alternatives to Cash Flow Testing research is to create a publication that serves as an educational tool for actuaries. The Project Oversight Group is reviewing a publication draft.

The Committee on Life Insurance Research has accepted the final report on Long Term Bond Yields of Life Companies with Junk Bond Portfolios. Plans are to extend the study through 1994.

Retirement systems

The Actuarial Consulting Center at the University of Iowa has begun to build a data base from data contributed by consulting firms and large employers for the Turnover and Retirement Rates project. The Project Oversight Group is reviewing proposals submitted for the second phase of this project.

The Macrodemographic Feasibility study will assess the usefulness and limitations of existing models and data sources for projecting the effect of environmental changes on design and cost of retirement benefit plans. The Project Oversight Group evaluated submitted proposals and is finalizing an

agreement with a researcher.

The Project Oversight Group is reviewing the Pension Plan Termination in Ontario project's final report. Upon approval, the project's product availability will be announced. Study results were presented at a session of the Annual Meeting in Boston.

A preliminary report has been received from Louis Adam, Canadian Pensioner Mortality project researcher, who is studying mortality among Canadian pensioners during the period from 1983 to 1992.

The Project Oversight Group for the Retirement Plans Mortality Study is reviewing proposals to assemble and analyze data. They will soon select a researcher for the project.

Board actions affecting research

At its August meeting, the Executive Committee recommended the SOA Board of Governors accept the final draft of "Principles Regarding Provisions for Life Risks" as an opinion expressed by the Committee on Actuarial Principles. They also recommended the final draft be published with an invitation for written discussions in the

Transactions. The Board accepted these recommendations at its October meeting.

The Executive Committee also recommended that the Board of Governors accept the Experience Studies Task Force's final report. The Task Force made recommendations to improve the organization, funding, objectives, and management of experience studies. The Board accepted these recommendations at its October meeting.

New York conference

Look for registration information on the December 7-8, 1995, Fair Value of Insurance Liabilities Conference. This conference, co-sponsored by the Salomon Center at New York University, is based on papers accepted in response to the Market Valuation of Insurance Liabilities call for papers.

Keep in touch with research

Remember to check Actuaries Online, the SOA's electronic bulletin board, for requests for proposals, research reports, project status reports, and other research information or contact the Research Department at the Society's office.



on the
lighter
side

Fiction Contest

by Jim Toole

In the interest of broadening our Gentle Reader's perspective, the Computer Science Section is sponsoring the first Actuarial Speculative Fiction Contest. Not merely science fiction, the genre of speculative fiction includes any wacky, creepy, or

spine-tingling, off-center vision of the past, present, or future that challenges reality and the accepted order of things. Some famous practitioners of the art include Jules Verne, Ray Bradbury, and George Orwell.

Guidelines are as follows:

- Entries must revolve around actuaries and the use of technology.
- 10,000 words or less in length.
- Illustrations/fanzines are encouraged.
- The contest is open to anyone who has passed an actuarial exam (no credit for college courses or GMAT:-).

First prize includes a \$250 gift certificate to the software chain of your choice, one year's free subscription to Actuaries Online, and publication in an upcoming issue of *CompAct*, the Computer Science newsletter.

Runners-up also receive a free subscription to Actuaries Online.

Dr. Bob Mielke, associate professor of English at Northeast Missouri State University, will judge the contest. A creative writing instructor, he also is the author of a series of monographs on J.G. Ballard, British writer of "new wave" speculative fiction.

Submissions should be in duplicate and include an IBM compatible diskette with your word processing file. Include an ASCII file if you use something unusual. Please send them to Jim Toole at PennCorp Financial, 101 Wade Avenue, Raleigh, NC 27605. Deadline is December 31, 1995. E-mail me questions at 102336.1557@compuserve.com or call 919/831-8933.