

**ACTUARIAL RESEARCH CLEARING HOUSE  
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**EDITORS' COMMENTS**

This special issue is dedicated to the 16th Actuarial Research Conference sponsored by the Committee on Research of the Society of Actuaries. The Conference was hosted by the Department of Actuarial and Business Mathematics at the University of Manitoba, Winnipeg, from August 27 to 29, 1981.

One of the editors, Henk Boom, was the Conference Coordinator and also the Chairman in charge of local arrangements.

The main theme of the Conference was: "Computers: The State of the Art and Its Implications for the Actuarial Profession". In the "Announcement and Call for Papers" it was emphasized that the Conference would be on new lines of thinking and on recent developments in the field of computers, including both hardware and software, as they were of interest to academics as well as practicing actuaries.

The editors have tried to order the contributed papers in such a way that a more general paper would precede a more specific one. However, since this guideline establishes only a partial ordering rather than a total one, a certain degree of arbitrariness could not be avoided.

An alphabetical list of contributors is included -- see page xix. Abstracts of the formal presentations begin on page xxi.

A few papers have been brought up to date by the authors to reflect the most recent developments having taken place since the originals were presented at the Conference.

We had Earl Joseph give the keynote speech and Ed Berkeley address the Conference banquet. They both provided us with exciting

ideas reaching far out into the future.

Every paper presented at the Conference discussed one or more aspects of using computers. On the implications of software for the actuarial profession, Al Christians discussed Sofasim in terms of software specification, design and implementation: "Developing software is very easy to do poorly and very hard to do well". Elmore Jenkins noted: "testing is a prime consideration during every phase of [program] development". There were papers on multiple claims models and corporate models where APL was used as a programming tool for its efficiency. Ken Iverson, the father of APL, stressed the importance of viewing APL as more than just a programming tool and discussed the value of APL as a tool of thought. He quoted A.N. Whitehead: "By relieving the brain of all unnecessary work, a good notation sets it free to concentrate on more advanced problems and, in effect, increases the mental power of the race."

On the development of languages, Hendrik Boom discussed the advantages of higher level languages: freeing the programmer from excessive attention to details and facilitating programming by transformation. The panel discussion provided lively exchanges of evaluations of the various languages from speakers and audience alike. ADA, ALGOL, APL, BLISS, Language C, FORTH, PASCAL, RATFOR and automatic programming were discussed and scrutinized, with admiration by some and rejection by others.

Actuarial and statistical theories were also advanced and tackled in the Conference. New developments in telecommunications and modern technology were discussed. George Dinney presented a computer game: "In this new world, communication will become a very

important function of distribution and, conversely, sales, or marketing, will become a subsidiary function of communication". The game should serve as a pioneering attempt for a financial information service which is eventually to be delivered to cable-connected home computers.

With some papers in this issue we have included the discussions which followed the presentations. Here, in order to convey the enthusiasm of some of the participants, we have tended to maintain a colloquial style.

We are pleased that, in this issue of ARCH, we have been able to make available, in printed form, a complete collection of the papers presented at the Conference. We hope that we have thereby contributed in bringing the profession up-to-date with the latest developments in computers and their applications, and, not in the least, in providing those who did attend with pleasant memories of exciting ideas, animated informative discussions and new, valuable personal contacts.

Special Issue Editors

Henk J. Boom and Fung-Yee Chan

University of Manitoba

