



SOCIETY OF ACTUARIES

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### Innovations cont'd

flashed up on the three screens at the back of the ballroom.

"The atmosphere was festive," said Bowles. "That kind of atmosphere makes people more relaxed, friendly and communicative." Bowles said new heights of elegance were reached with Tuesday night's black-tie dinner featuring the Canadian Brass. "If registration fees can support events like that, we might want to offer them," he said. "The dinner brought some new life to the meeting."



Kenneth T. Clark, who delivered the meeting's closing remarks, presents Thomas P. Bowles, Jr., with an engraved silver platter in appreciation for his hard work as head of the Centennial Steering Committee.

Bowles, who began working on the Centennial Celebration four and one-half years ago, estimates he spent one-half of his time last year on the meeting and one-third the year before that. Much of that time was spent on the phone. "Until you work on a meeting like this, you have no idea the amount of planning and details involved," said Bowles, who left on a two-week vacation to British Columbia and Washington State immediately after the meeting.

"I was lucky to have the right people working on this with me. Members of the steering committee — Ed Boynton, Harry Garber, John Gardner and Stan Hughey — were vital to this meeting's success. There couldn't be a better person to head the program committee than Robin Leckie, who had a hard-working committee in Ed Friend, George Morrison, Dick Robertson, Bob Shapiro and Mavis Walters," he said.

"Our collective goal was to have people leave the meeting saying, 'Golly, I'm glad I was there for that.'"

## Fundamental Concepts to shape standards and principles

Charles L. Trowbridge's new monograph on the *Fundamental Concepts of Actuarial Science* may help shape actuarial standards and principles for the next 100 years.

The Actuarial Education and Research Fund (AERF) commissioned Trowbridge early in 1988 to author the monograph, which identifies the fundamental intellectual concepts of actuarial science. It was distributed to attendees at the Centennial Celebration.

Trowbridge, a former SOA President, said in an interview that the monograph is an important stepping stone for developing actuarial standards and principles. Without fundamentals, it would be impossible to develop standards and principles, he said.

However, Trowbridge said, the monograph is somewhat out of the ordinary. "It's kind of unusual. I don't know any other profession that's done this," he said.

In the introduction, Trowbridge described a three-tier structure the profession appears to be moving toward. The first level includes the fundamental concepts at which the

monograph is aimed. The second level is the principles actuaries employ, as they apply fundamental concepts to practical problems. The last tier is composed of actuarial standards.

He also emphasized the importance of unity in the actuarial profession. In an interview, he said the gap between life and casualty actuaries needs to be filled, and all actuaries must unite.

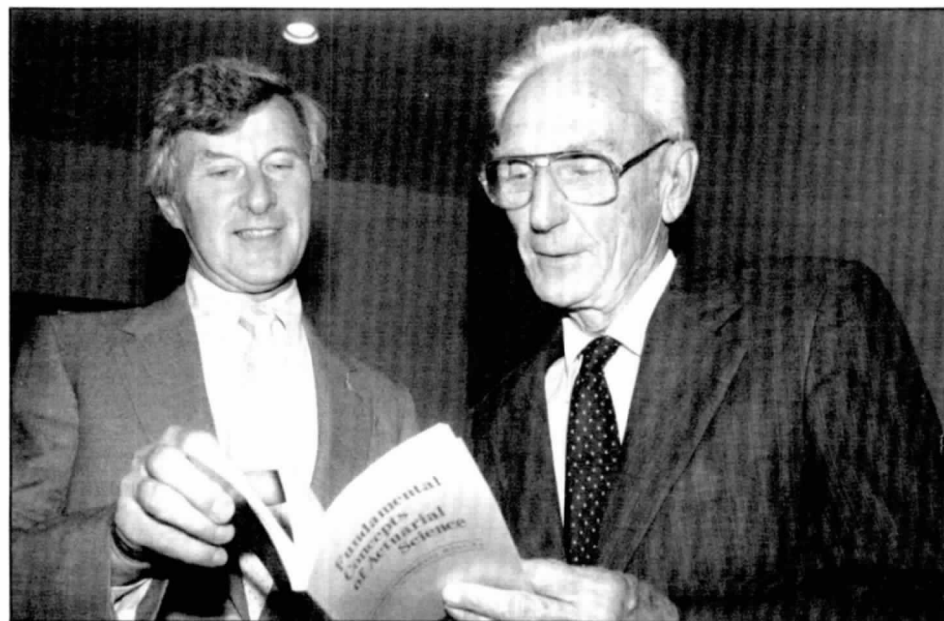
In the monograph, Trowbridge also touched on the evolution of the profession. He wrote, "In earlier days, most of those who thought of themselves as actuaries were employees of life insurance companies and hence part of the insurance industry... This close connection between the actuarial profession and the insurance industry is largely a thing of the past."

In one of the book's lengthier chapters, Trowbridge addressed the economics of risk, citing the special relationship actuaries have with financial security systems as one of the foundations of actuarial science.

In the same chapter, he discussed the uniqueness of the actuarial role.

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Charles L. Trowbridge, right, discusses his "Fundamental Concepts of Actuarial Science," with Ardian C. Gill.



### Concepts cont'd

He wrote, "The role of the actuary is that of the designer, the adaptor, the problem solver, the risk estimator, the innovator, and the technician of the continually changing field of financial security systems." In addition, he wrote, "The actuarial profession understands, however, that the actuary's role is not exclusive...Actuarial skills must mesh with the capabilities of others if financial security systems are to be successful in minimizing the financial consequences of economic risk."

In Chapter III, Trowbridge identified probability and statistics, the study of random variables, as another foundation of actuarial science. In Chapter VII, he said the cluster of ideas surrounding classification, selection and antiselection also is a fundamental concept.

Trowbridge discussed assumptions; conservatism and adjustment in Chapter VIII. He defined actuarial conservatism as "the use of any actuarial technique (usually but not always the choice of one or more assumptions) that leads to a higher price for a set of benefits, or a higher value of liability..."

In the Chapter VIII summary he wrote, "Except where prohibited by law, or effectively barred by competition, actuaries tend to incorporate some degree of conservatism into their calculations and their recommendations...The actuary's bias in favor of the conservative approach is based on a conception of the public interest, and on a preference for the results of erring on the conservative side as opposed to the consequences of the opposite kind of error."

The final chapter dealt with the role of fundamental concepts in the development of standards. Trowbridge wrote, "This monograph cannot anticipate the actuarial standards or actuarial principles that may eventually develop, but it may be useful to illustrate some of the ways in which foundations, principles, and standards might be interrelated."

The American Academy of Actuaries will send complimentary copies of the monograph to members with the September/October issue of its magazine *Contingencies*.

Others interested in a copy of the monograph may send a charitable contribution to the Actuarial Education and Research Fund, 475 North Martingale Road, Suite 800, Schaumburg, IL 60173.

# Centennial panel examines challenges from without

by Judith Bluder

**M**embers of an expert panel at the Centennial Celebration called for actuaries to change some of their old ways and expand their abilities in response to challenges from employers, the government, regulators and policyholders.

During the general session titled "The Challenge from Without," moderated by Ardian C. Gill, panel member Walter B. Gerken said three major developments affecting employers will consequently affect their actuaries. Those developments are the globalization of the financial services marketplace, socialization and potential legislation designed to solve social problems through cost shifting.

The trend toward foreign ownership of U.S. companies will continue, he said, along with the expansion of U.S. companies into the insurance and asset management business in foreign markets. "Employers who enter foreign markets will expect their actuaries to understand those markets and the applicable regulatory environment and even have a knowledge of the languages of the countries in which they operate."

Socialization, or the increasing impact of social factors on the actuarial profession, is a second major development, said Gerken, the recently retired chairman of the Executive Committee at Pacific Mutual Life Insurance Company. Proposition 103, passed by California voters last November, exemplifies this. The proposition set up rate regulation by calling for an elected insurance commissioner and a 20% rollback in premiums from the levels in November 1987. And, "What happens in California is likely to happen in other states," he said.

Actuaries also will be expected to design government programs that provide a role for private health insurance carriers if legislation is enacted to solve social problems through cost shifting, Gerken said. "This will require allocating the cost burden in a socially acceptable way by designing risk pools for uninsurables."

In addition, he said employers will challenge their actuaries to better understand how products are sold. Gerken suggested actuaries spend some time in the marketing departments of their companies as part of their training.

"Everything I've said so far brings me to one major conclusion," he said. "Actuaries will have to have a broader background and, in many career roles, will have to become generalists."

### Casualty insurance

From the view of employers in the casualty insurance business, panel member Carlton W. Honebein said the challenge facing actuaries is to help companies make a profit consistently over time. Actuaries also have a responsibility to accurately estimate the liabilities listed on the balance sheet.

In addition, he said actuaries must learn to be more individualistic and proactive. The way in which rates are determined has changed. In the past, actuaries determined rates in a group effort. But today, in a world of open competition and competitive ratemaking, actuaries cannot depend on their "strength in numbers," said Honebein, President of AVCO Financial Insurance Group.

"To me, the challenge from the employers is clear profitability and adequate reserves," he said. "But, it's really up to the actuaries to be influential in helping corporate management get to those answers. Actuaries must not be passive by-players."

### Government challenge

The challenge from both the Canadian and U.S. governments will be for actuaries to conduct thorough cost analyses of existing social insurance and pension programs and of proposed changes to those programs, said panel member Robert M. Hammond. "However, I think the challenge will be for actuaries to convince governments of this fact by producing credible results and by being able to explain and justify them."

In addition, government will continue to seek actuarial opinions on