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## Forecast 2000 forum generates substantial media coverage

by Robert L. Brown

The recent Forecast 2000 forum on the environment held in Toronto dealt with such issues as increased taxes and higher insurance premiums to cover costs of natural disasters. The forum generated a lot of positive worldwide media coverage and brought more focus on the actuarial profession, despite the somewhat negative tone the survey projected.

In discussing the results, based on a survey of casualty actuaries, a positive pro-active stance was emphasized with the media.

In particular, it was our contention that through insurance premiums, the business sector will see real economic incentives and rewards for being responsible corporate citizens with respect to pollution control (e.g. reduced premiums for safe, inspected storage facilities). Furthermore, we stressed that actuaries have an essential role to play in assessing the economic value of the pollution liability risk, both in setting equitable premiums and also in assisting the courts in adjudicating penalties in cases of damage or injury.

Before the July 11 Forecast 2000 seminar, actuaries with a particular interest in the topic were polled on a series of relevant questions. In this case, the response was from 332 property/casualty actuaries (out of 1200 polled). Questions varied from the effects of a catastrophic natural disaster to concerns about environmental pollution. The results of the survey, which acted as the focal point

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## Continuing education: The debate goes on and on

by Burton Jay

Should actuaries have a formal program for continuing education? This question has been asked, studied and debated at least since the early part of the decade. For many years, accountants, physicians and lawyers of many states have had continuing education requirements to retain their license to practice. Many other professions, including some groups of life insurance agents, require their members to participate in continuing education activities or in some way recognize those who do. Where are the actuaries?

The topic was on the agenda of the Society's Services to Members Policy Committee as early as 1983.

In 1984, a joint task force representing the actuarial bodies in North America was formed to consider the question. In a September 1985 report to the Council of Presidents (COP) the task force recommended that each founding organization of the Academy

adopt a similar continuing education recognition program. The Conference of Actuaries in Public Practice (CAPP) was already in the process of adopting a program similar to the one envisioned by the joint task force. That program would have recognized - with an asterisk or other designations in the organization's yearbook - those individuals who fulfill the required hours of continuing education and submit documentation to the organization's administrative offices. The American Society of Pension Actuaries has also had such a program for a number of years.

Another type of program involves specified continuing education requirements to retain one's professional designation. The Joint Board for Enrolled Actuaries recently implemented a program that members must fulfill to retain their Enrolled Actuary designations. The COP deferred action

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**Forecast 2000 cont'd**

for the media event, can be summarized as follows.

According to the survey, actuaries believe that insurers would be unable to cover the costs of a catastrophic natural disaster, like an earthquake, in the year 2000. Eighty-one percent of respondents believe this given current premiums and coverage. Such costs could only be borne by higher insurance premiums, according to 50%; or increased taxes, according to 30%.

For example, if a major earthquake like the San Francisco earthquake of 1906 were to occur again in southern California, claims could total more than \$40 billion. If the insurance industry there tried to set aside \$50 billion for claims, the government would insist on taxing that money. It's just not possible to keep that kind of money around. (*Ed. note: This article was written before the San Francisco earthquake of October 17th.*)

Fifty percent of actuaries who responded believe that chemical wastes are the environmental risk

which will pose the greatest health hazard to the general public by the year 2000.

These hazardous chemical wastes will also be the environmental risk most costly to society, according to 64%. Federal, provincial, and state governments would bear the clean-up costs, say 55%. Ninety percent said, however, that federal regulatory systems, such as the United States' Superfund program, are inadequate as they exist today to pay for clean-up costs. Most respondents, 64%, think additional taxes would be necessary to cover these costs.

Employers will protect themselves from potential environmental hazards in the work place, such as office automation, sealed buildings and lead in water, through Workers' Compensation/Health Insurance, according to 63%.

Sixty-four percent of those surveyed believe that health claims resulting from nuclear exposure would increase by the year 2000.

Broad court interpretations of insurance contractors were blamed by 64% for the insurance industry's reluctance to provide pollution coverage.

Presentations at the forum were also made by Margaret Tiller, F.C.A.S., A.S.A., M.A.A.A. (The Cost of Environmental Risks), by her husband and business partner, environmentalist Michael Tiller (Global Risk Assessment) and Martin Theriault, of the National Coordinator of the Canadian Environmental Network.

This forum met with wide and enthusiastic response from both the print and broadcast media. (Follow-up calls came from as far away as London, England; the Soviet News Agency, Tass, even called to ask, "What is an actuary? We have none in the Soviet Union.") I hope that the remaining seminar in the series can be as successful.

Robert L. Brown is Associate Professor, Department of Statistics and Actuarial Science, at the University of Waterloo and President-Elect of the Canadian Institute of Actuaries. He presented the survey results at the Forecast 2000 forum.

## First Intensive Seminar draws 66 students

by Robert C. Campbell

Sixty-six actuarial students participated in the Society's first two Intensive Seminars for examination credit during the weeks of August 14 and 21. The seminars were held on the University of Wisconsin-Madison campus. A total of 65 students completed the course, with 62 passing.

The two identical five-day sessions in Applied Statistical Methods were sponsored by the Education and Examination Committee as part of the implementation of the Future Education Methods (FEM) programs approved by the SOA Board in 1987. Successful candidates earned 10 elective credits toward Associateship.

The intensive seminar concept supplements the self-study approach by providing students with an opportunity to use the mathematical knowledge obtained through self-study to analyze realistic problems. Successful completion of an intensive seminar is intended to enhance the student's education by moving beyond formulas to a deeper understanding of central concepts and their specific application to the work of actuaries.

The seminar combined lectures with case studies. Students' desks were equipped with terminals connected to a minicomputer running statistical software. Students learned to apply analysis of variance; regression; and time series analysis to a variety of economic, financial, and actuarial data.

Applied Statistical Methods was chosen as the topic for the first Intensive Seminar because data-intensive techniques are particularly well-suited to the interactive approach that a seminar environment affords. The seminar setting enables students to experiment with techniques to learn how and when to apply them.

Academic background was provided by Dr. Edward W. (Jed) Frees, Associate Professor of Business and Statistics at the University of Wisconsin. Dr. Donald F. Behan of Deloitte, Haskins & Sells served as the business faculty member, providing specific examples of applications of statistical techniques to real actuarial assignments.

Students were evaluated on the basis of a written examination and a class project. The written examination

was comparable in form and content to other Society examinations. The class project was the analysis of a complex data set. Students worked in small teams to decide what statistical techniques to apply and to perform the analysis. Each student then prepared a written report to communicate the findings and interpretations to a nontechnical managerial audience.

The seminar pass mark was set by the Society, through its E&E committee structure, to maintain appropriate standards for earning examination credit.

Both faculty members commented on the high level of student enthusiasm and preparedness, and student reaction to the course has been strongly supportive. Student suggestions for improvements will be considered as future intensive seminars are developed.

We plan to offer another Intensive Seminar in Applied Statistical Methods next summer and to expand the concept to other appropriate topics in the future.

Robert C. Campbell is an Actuarial Consultant with Hewitt Associates. He is an Education Vice Chairperson on the E&E Committee.