The Actuarial Update

VOLUME 18 NUMBER 8 AMERICAN ACADEMY OF ACTUARIES AUGUST 1989

In this issue

Enclosures

Included in this month's issue of *The Update* are the following:

- Government Relations Watch
- In Search Of . . .
- ASB Boxscore and Fact Book
- Final Reports on Continuing Education Recognition and on Qualification Standards
- Supplemental List of Members

1989 Centennial Celebration of the Actuarial Profession in North America

June 12-14, Washington, D.C.

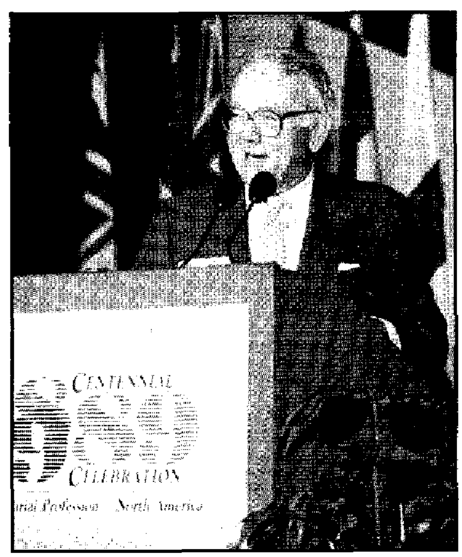
Opening of the Centennial Celebration

"Happy Birthday!" was the opening salutation, spoken exuberantly by Thomas Bowles, steering committee chairperson for the centennial. From the podium in the large, flag-bedecked ballroom of the Sheraton Washington Hotel, he repeated the invocation: "Happy Birthday!" In spite of the early hour (the opening session began at 8:45 a.m. on Monday), the 1,212 assembled guests apparently were roused by Bowles' enthusiasm. "Happy Birthday!" they responded.

"Welcome to the centennial celebration of the actuarial profession of North America!" he continued, his face beaming from the huge, simultaneous video display. "During these next three days we shall reexamine the intellectual foundations of our profession, and we shall recommit ourselves to serving the publics who benefit from our professional skills and experience. These days indeed will be both a celebration and a launching pad for our thrust into the future."

After the Alexandria Royal Fifes and Drums processed to and from the stage playing "Presentation of the Colors," Bowles began to formally present some prominent attendees. "Over the years, we in North America have benefited greatly from an infusion of strength and vitality from our peers overseas," he acknowledged, introducing the presidents of the Institute of Actuaries in England and the Faculty of Actuaries in Scotland: Roger Corley and Bill Morrison. Mr. Bowles reported that forty-two members of the Institute and Faculty were in attendance, and that in all about 100 delegates representing 23 nations had come to Washington, D.C., to participate in the North American centennial.

Bowles then introduced the presidents of the five organizations sponsoring the North American centennial: Jim MacGinnitie of the Academy, Peter Hirst of the Canadian Institute of Actuaries, Kevin Ryan of the Casualty Actuarial Society, David Hewitt of the Conference of Actuaries in Public Practice, and Ian Rolland of the Society of Actuaries. In the spirit of celebrating 100 years of professionalism, he then introduced 10 actuaries who had served the profession 50 or more years, and together had contributed more than 500 years of service.



The Actuarial Update

Chairperson
Committee on Publications
Carl R. Ohman
Editor
Charles Barry H. Watson
Executive Editor
Erich Parker
Associate Editor
Warren P. Cooper
Managing Editor
Jeanne Casey
Contributing Editor
George Soules
Production Manager
Renee Cox

American Academy of Actuaries
1720 I Street, N.W. 7th Floor
Washington, D.C. 20006

From a Guest President

Roger Corley

Two separate meetings, two weeks and an ocean apart, served well to demonstrate the international dimension of a major issue facing our profession.

The first of these meetings took place in Washington, D.C., during the splendid centennial celebration. I was privileged to be invited to join in those days, when all the visitors from overseas were made to feel thoroughly and continuously welcome, and I found much to interest me and much to enjoy. However for me, and I have no doubt for many others, the highlight in terms of stimulus and a call for action was the general session on Tuesday morning, when each of four outstanding speakers presented his views on "The Challenge from Without."

The threats and challenges that they listed were numerous and varied, but the question that I heard running through the whole session was whether our profession is prepared to do whatever is necessary to ensure that it is in control of its own destiny. Do we know whether we have the will, as a profession, to be responsible for the financial probity and long-term viability of the institutions and funds that we advise? Or are we content to allow the responsibility to rest with governments and their functionaries, seeing our own role as merely certifying that we have valued the liabilities in accordance with the rules?

There is, of course, no doubt about where the British actuary stands in this debate (having been subjected to increased supervision in the last few years), and it was a delight to listen to Bob Hammond describing the creation in Canada of an environment based on freedom with disclosure.

In London, exactly fourteen days later, I was in the chair for a joint meeting of the Institute of Actuaries and Faculty of Actuaries, which had been called to discuss a specially commissioned paper entitled "A Single European Market for Actuaries." We were fortunate for this event in having a number of friends from the continent join us so that all the countries of the Economic Community except Spain and Portugal were represented.

The paper was restricted to reviewing current actuarial involvement in supervision and control of life assurance in the twelve countries, and considering the possible effects of harmonization of supervision on the products of life offices and on the statutory and professional position of actuaries. Methods of supervision vary from country to country, but there is a broad division between Great Britain and Ireland, where reliance is placed on the judgment of a designated actuary, and the other ten countries in which strict regulations are designed to maintain financial security.

An interesting feature of the discussion was that some of the actuaries from continental Europe could see benefits in operating in a somewhat more flexible environment, but did not think that this would make much difference to their work, whilst the British actuaries regretted the loss of flexibility already brought about by legislation over the last few years and saw any further inroads as a huge threat to the work and standing of the profession. Perhaps this links with something Jim Anderson was expressing in Washington, in that those who have not been brought up to expect responsibility see little need to fight to secure it.

The preferred destiny of the profession must be to be considered worthy of meaningful responsibility built onto our technical expertise, and this means that we must develop a reputation for sound and broadly based judgment. It is difficult to see how this can ever be achieved in those countries where actuaries ignore the assets and focus narrowly on the liabilities.

In order to gain the recognition and status that our combined intellectual capabilities deserve, we have to work hard to pull the profession together, not only where artificial divisions within a country hinder progress, but also internationally, so that we can have the confidence to push the profession to undertake more and more responsibility. One way

(continued on page 3)

The Update welcomes letters from readers. Letters for publication must include the writer's name, address, and telephone number, and should be clearly marked as Letters to the Editor submissions. Letters may be edited for style and space requirements.

Letters to the Editor

Personal Plug for Volunteers

The Committee on Property and Liability Issues is looking for a few good members to add to its roster. During the past year, we have been actively involved in the McCarran-Ferguson repeal movement, the Dingell hearings on insurance company insolvencies, and many other political and regulatory issues that confront actuaries in the insurance industry.

Over the next year, we will continue our involvement in Washington. We expect to have considerable input into the Proposition 103 rate hearings. If you are interested in joining our committee and performing a valuable service for the profession, please call me at (203) 244-8985.

Robert V. Deutsch
Simsbury, Connecticut

Mr. Deutsch, chairperson of the Committee on Property and Liability Issues, is senior vice president and chief actuary with Executive Re Inc.

April in Paris!

We are organizing, in conjunction with the French Actuarial Associations, the first International AFIR Colloquium, which will be held in Paris from the 23rd to 27th of April 1990 at the Intercontinental Hotel. AFIR is the new financial section of the International Actuarial Association (IAA), and its colloquium will bring together actuaries and non-actuaries on the general theme: "Actuarial Approach to Financial Risks."

You are invited to take part in the organization of the colloquium by sending us, before September 30, 1989, your contribution regarding your work and research in this area. It also would be helpful if you would let me have the names and addresses of those you believe might also be interested in participating.

Jacques Chevalier
Paris, France

Over 200 U.S. actuaries have become members of the AFIR section, and a large number of them have expressed their interest in attending the April colloquium. However, U.S. actuaries are still under-represented in terms of contributed papers. Papers in English or French may be sent to: AFIR Secretariat; 5, Avenue de l'Opéra; 75001 Paris, France.

Actuaries Draw National Press

On June 13, a news conference highlighting some of the research findings from the profession's centennial meeting was held at the National Press Club in Washington, D.C. The briefing was organized under the auspices of the Forecast 2000 public relations campaign. In attendance were reporters from the Journal of Commerce, Washington Post, Barron's, *Associated Press, Associated Press Radio,* Kiplinger Washington Letter, *Biznet's "Nation's Business Today,"* National Underwriter, *National Media Services,* Pension and Investment Age, Pension World, U.S. Association Executive, BNA Pension Reporter, *Thompson Newspapers, Small Newspaper Group, Prentice Hall, and* FDC Report. *The Washington News Network videotaped the event.*

Meeting with the press were James J. Murphy, executive vice president, American Academy of Actuaries; Bartley L. Munson, principal, Mercer-Meidinger-Hansen; Robert Brown, University of Waterloo; Yuan Chang, vice president, Metropolitan Life; Robert Sturgis, vice president and director, Tillinghast/Towers Perrin; and Barnet Berin, chief actuary, Mercer-Meidinger-Hansen. Each representative of the profession reported on a different, newsworthy finding or topic. For example, Robert Sturgis discussed the cost of the tort system, Bartley Munson, shaping the future of health care.

The Update *will continue to keep Academy members informed of the Forecast 2000 campaign and the profession's ongoing effort to bring actuaries and their work into the public eye.*

FROM A GUEST PRESIDENT
(continued from previous page)

to move toward achieving this aim may be not only to determine the "actuarial core" that runs through all our work, and which Charles Trowbridge, James Tilley, and Sidney Benjamin have done so much to illuminate, but to gain international acceptance for this and then to analyze, country by country and sector by sector, what is added, in terms of techniques, professional judgments, and standards. By learning from each other and building on our strengths, we may indeed be able to create a profession of international standing, capable of meeting not only the challenges of a unified Europe, but also those expressed so clearly by the four wise men in Washington.

Mr. Corley is president of the Institute of Actuaries in Great Britain. A report on the session, "The Challenge from Without," referred to by Mr. Corley, appears on page 7.

The Challenge of Professionalism

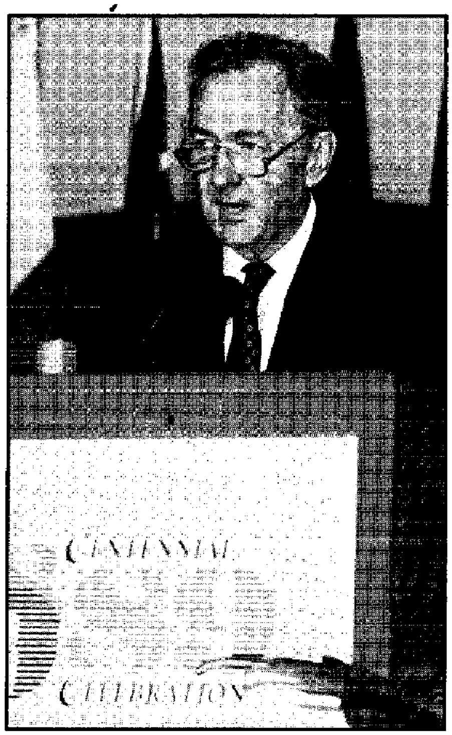
Justice Estey's Keynote Address

"I rise in a foreign land, to speak on a foreign subject, with what some may think is a foreign accent," began Willard Estey, former chief justice of the Supreme Court of Canada, "and I take great comfort in the fact that a thousand years ago Julius Caesar probably stood in the same position as he addressed the actuarii of Rome."

Although actuarial science may be, in some sense, a "foreign subject" to "Bud" Estey, professionalism is not. "On route to Canada's highest court, Bud Estey acquired a reputation for possessing one of the quickest legal minds in the country," said John Gardner, introducing Estey. Most recently, Justice Estey "directed the inquiry into the failure of two middle-sized Canadian banks." Gardner elaborated: "Tremendous publicity stemmed from this inquiry, for not many banks in Canada have failed," and Justice Estey's "strong sense of professionalism was made very clear to the Canadian public in the case of these two failures."

Hallmarks of a Profession

In the course of his speech, Justice Estey enumerated three general requirements for any profession. "First of all, there must be associated with the profession's undertakings—skilled, intellectual techniques." This first requirement assumes a "voluntary association at the core of the profession," "a code of conduct" with a "formalized mode of enforcement" by that association. Also, the professional body itself must provide training for qualification as well as means for continuance of that training. The second hallmark of a profession, according to Estey, is the public perception that a member of the profession applies special skills. The last, and most important attribute of a profession, in Estey's estimation, is the commitment by each and every member of that profession to society's interest, "to humanitarian and other altruistic goals" beyond the professional's own financial and personal interests. Justice Estey related that, as of 1900, only 4.6% of the North American labor force were members of a professional body. "By 1971, the figure had risen to 12.7%, and it is now probably much higher," he said. "The actuary perhaps would never have come about as a profession except for the advent of man developing his 'squirrel instinct' of storing something for the cold winter. Insurance was the first rocket thrust that the actuary had into his professional orbit," said Estey, "then came pensions and health benefits and now the greatest bonanza of all—human rights legislation—and the invasion of commerce by the actuary in the assessment of risks outside life and death. . . ."



Former Chief Justice Willard Z. Estey, keynote speaker.

Judge Meets Actuary

Estey's first personal encounter with the actuarial profession was when he was examining an actuary on the witness stand "to prove longevity or lack of it by reason of the intervention of the plaintiff with [an] automobile." He reflected that "the actuary then was a solo flying bird. Now when I see them in action at the legislative assembly, I realize they've taken on the characteristics of a Canada goose —and they all fly now in formation!

"And you see quite an advent of the actuary in the assessment of the impact of proposed social legislation. That, in my observation, is going to be the next bonanza of the actuarial profession. And your problem will continue to be an undersupply of trained actuarial talent."

Referring to his involvement in the judicial inquiry into the two failed banks, Estey mentioned coming upon the actuary in the actuary's new role—that of attempting to evaluate, for the regulator, both sides of the balance sheet. Actuaries "were not called in soon enough in the banks I had occasion to look at," he said. "One can easily read into the future that, in modern banking, the actuary will not be far away when the auditor sits down to examine the financial statements as prepared by management before presentation to the stockholder."

Risks Associated with Professionalism

Estey suggested that there are "hazards" for any profession as it begins to enjoy greater public recognition. And the easiest way to assess a profession's exposure to challenges is to analyze the interplay between that profession and the law of the land, Estey said. The actuary is a relative neophyte with respect to the legal system—unlike the physician, lawyer, and accountant who are sued so often that they "have a great war chest built up to (a) defend themselves, and (b) pay when they lose, which is more frequent than not," remarked Estey.

As the actuary moves away from the employer-employee relationship into consulting, he or she is increasingly prey to conflict of interest, Estey emphasized. For example, in Estey's view there is a conflict of interest for the actuary in telling management whether or not there is a pension or benefit-fund surplus in actuarial terms and, if there is such a surplus, who owns it and what use it may be put to.

Negligence is the second concern in any debate over legal liability, said Estey. He said that there is a "wholly new concept in legal liability thought," which says that a professional issuing a certificate stating an opinion, especially an opinion that might affect not only the client's resources but other people's as well, should include an assessment of what the consequence of reliance on the certificate would be if the certificate were wrong. Estey admitted that this second liability would have no real bound except those of the fundamental relationship between client and consultant or "duty of care," the physical form of that pronouncement, and any evidence of negligence.

Estey spoke at some length about the actuary's responsibilities as an expert witness—the key one being the "exclusive privilege" to answer the questions asked by counsel in an unbiased, thoughtful manner. Estey said that actuaries who serve as expert witnesses (and who, unlike ordinary witnesses—observers of fact and event—actually "give opinion as to how facts should be analyzed and what scientific principles the court must realize and appreciate to access the evidence") should carefully prepare their testimony and "should not get into that courtroom theater unless [they are] familiar with the process of cross-examination."

The profession's interplay with "the law of the land," as Justice Estey put it, is not exclusively in the areas of professional liability and providing expert opinion. Estey emphasized that "nothing is above the law," not even actuarial judgment. He referred to the the *Manhart* opinion and the actuarial tenet that there should be a differential in insurance premiums or pensions to reflect the fact that women, on average, live longer than men and therefore stake greater claim, as a group, on a given pension fund. Estey said that social policy dictates that whether or not women live longer than men, they cannot be discriminated against and that "everyone . . . is equal in the eyes of a pension plan."

Public Interest Paramount

In conclusion, Estey clarified that although he did not anticipate an actual surge in the number of suits brought against actuaries in the immediate future, he pointed out that the judicial system is suffering from a new version of Murphy's law—"That any claim that might possibly be advanced will be advanced." He mused, "Probably for self-protection, the actuary will have to have the shield or shroud or shell of a statute-based authority before too long," whether that jurisdiction is conferred nationally as it is in Canada, or locally.

Once again, "the highest, first, last, and always the paramount consideration in a profession is the public interest component over and above self-interest. The promotion of the public interest through one's profession is not an overnight task. It must be a long-standing, deeply embedded, operating principle of this and any other profession. I am sure the actuary, more than any other professional, realizes the need for the long-term view, and the need for the preservation of this first, last, and foremost professional characteristic," Estey concluded. Δ

Come to the Annual Meeting, October 15–18

This year, the Academy's annual meeting is to be held in conjunction with that of the Conference of Actuaries in Public Practice (CAPP), and it is scheduled for October 15–18, at the Homestead in Hot Springs, Virginia. Registration materials will be sent to you upon request. Simply call the CAPP offices: (312) 706-3535.

The theme of the 1989 joint meeting is "Preparing for the 21st Century: The Expanding Role of the Consulting Actuary." The keynote address will focus on this topic, as will follow-up sessions covering the impact of demographics and other trends on actuarial disciplines. Attendees also will be informed of the latest regulatory and legislative developments of concern to consulting actuaries.

A total of forty-seven concurrent sessions will be offered on topics ranging from "Effect of the 1988 Tax Reform Act on Life Products" to "Mergers and Acquisitions."

The meeting is designed so that enrolled actuaries will be able to get all ten continuing education credits needed to maintain their enrollment for the current cycle. The meeting sessions should provide twelve core and twelve non-core credits, although the maximum number of credits that can be earned at this meeting is twelve.

The Homestead is nestled high in Virginia's Allegheny Mountains and is touted as a first-class resort. Set on 15,000 acres of rolling hills and woodland laced with streams, the Homestead offers everything from PGA-rated golf courses, tennis courts, riding trails, and indoor and outdoor swimming, to a European-type spa and exercise room. You might be wondering how all those educational sessions are going to fit in!

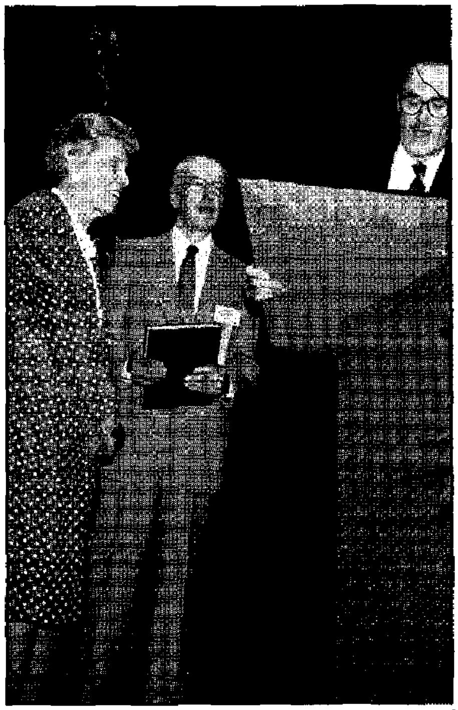
OPENING SESSION
(continued from page 1)

Author of *Our Yesterdays* Honored

One of these venerables, Ernest J. "Jack" Moorhead, and Iris, his wife, were asked to come forward by Dwight Bartlett, past president of the SOA. Mr. Bartlett presented Jack Moorhead with a leather-bound copy of Moorhead's newly published history, *Our Yesterdays*, and a commemorative plaque signed by the presidents of the five actuarial organizations.

"I think it is a good book, and I don't by any means take credit for it all," said Moorhead. "In fact, I'm prepared to blame every one of the residual errors on the people who worked with me," he teasingly remarked. Addressing the audience, he said, "As for you, I hope that there are a number among you who recognize yourselves in the dedication of the book, which reads 'to actuaries of all lands who have struggled mightily to create and maintain a profession worthy of public trust.' "

Our Yesterdays: the History of the Actuarial Profession in North America, 1809-1979 *can be ordered by sending $60 (price includes postage) to Society of Actuaries, P.O. Box 95668, Chicago, IL 60694. Please note that for overseas orders there is a 50% surcharge.*



Jack and Iris Moorhead receive tokens of gratitude for* Our Yesterdays *from Dwight Bartlett.

The Challenge from Within

by Dana Murphy

Perhaps more than any other, the session titled "The Challenge from Within" afforded centennial celebration attendees an opportunity to measure the distance they had come in the first 100 years of the actuarial profession. As James Hickman, dean of the School of Business at the University of Wisconsin declared, "We are here to celebrate a birthday," and to celebrate the foundations of the profession as well.

Key Ideas to Profess

Hickman observed that the word "profession" has the same root as the word "profess." A profession is founded on a set of ideas, which members of the profession have to transmit, reinforce, and expand upon, if the profession is to flourish. "The central proposition of today's session is that the challenge from within, the challenge to the heart and soul," he declared, "is the challenge to create new ideas and to develop the organization and the people that will carry on that great function."

One such key idea, risk theory, was explored by Hans Bühlmann, honorary president of the Association of Swiss Actuaries. As the core of the actuarial profession is its ideas and paradigms, said Bühlmann, "mathematics is best suited for expressing these ideas." But, Bühlmann added (quoting Goethe), "Mathematicians are like Frenchmen. They translate everything into their language, and then it sounds beautiful—only nobody understands it any more." Nevertheless, for "whoever wants to experience how the basic ideas can be more precise, the price to be paid is that the language must become more technical."

Actuarial science, said Bühlmann, is centered around two basic ideas: risk and uncertainty. If one die is rolled, no one knows which side will come up; this phenomenon is described by probabilities. If the probabilities are unknown (the die may be loaded, for example), one is also faced with uncertainty.

Our Ideas' Historical Ascent

During its history, actuarial science has been characterized by the construction of models, like Halley's seventeenth-century table of mortality for the city of Breslau. Such classical models are still the most common type, but, Bühlmann noted, in them "there is no room for uncertainty or risk. The whole theory relies on the underlying assumption that the law of large numbers is working." It does not address the issue of deviations from this law.

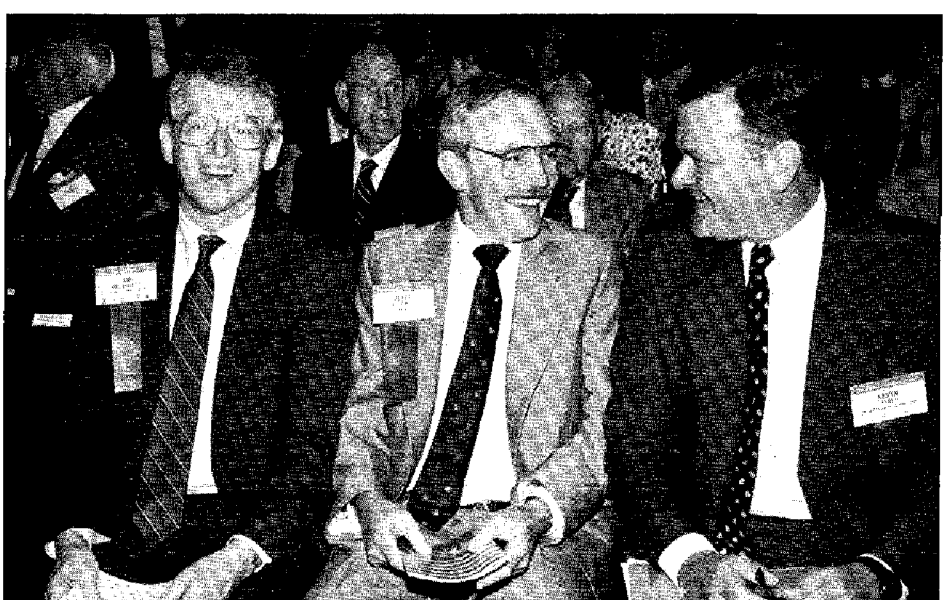
Historically, individual risk theory represented the first attempt to recognize the existence of risk. "*Qx* now becomes a probability, and is no longer just a rate by which the living people are diminishing," noted Bühlmann. But it was in 1909, at the International Congress of Actuaries, that the most powerful advance in risk theory was announced. Put forth was the concept that risk was built not only upon individual lives, or the individual policy, but upon class experience as well. Upon this notion, collective risk theory was founded. This idea opened a pathway for the application of the theory of stochastic processes.

"With the advent of collective risk theory," said Bühlmann, actuaries got, for the first time, instruments to predict and control surplus—one for the short term, and one for the long term. Nonetheless, problems created by uncertainty persisted; these were tackled in turn by later actuaries, who came to realize that "If you want to control risk, you have to do the underwriting properly. If you want to control uncertainty as well, you need additional tools: experience rating and credibility theory." Bühlmann judges the latter as "*the* most prominent contribution American actuarial science has given to the whole world of actuarial science."

Puzzlingly, though, another actuarial variable, *i* (interest rate) is pretty much handled as it was in the seventeenth century. "We all know the model is wrong," said Bühlmann, "so we correct the model in practice by rules of participating policies or by profit-sharing arrangements." But, he queried, "Aren't these corrective measures *not* a kind of actuarial mayonnaise under which we hide the mistakes of our professional kitchen?"

Why do we use such crude mechanisms for financial risk? The answer, Bühlmann observed, is related in part to the mathematical treatment, which is very difficult. Second, errors in the model are very costly: "There is no law of large numbers on the financial side." But newer work has vitiated these excuses—There are now tools "by which you can eliminate financial insecurity."

Bühlmann concluded with an attempt to summarize the history of the profession: "In the seventeenth century, the profession originated with the model as developed by Halley, by his table of mortality. The actuaries of this era are the *classical actuaries*." Then, some time in this century, the first miracle of the actuarial profession occurred, when actuaries learned how to control uncertainty on the risk side. From this effort, the actuaries of the second era arose. Most recently, advances on the financial side that provide completely new tools to be incorporated into our profession will inaugurate a "third era for our profession."



Smiles from the front row. *Current presidents Jim MacGinnitie (AAA), Peter Hirst (CIA), and Kevin Ryan (CAS).*

Lest We Get Too Serious

Providing a rather humorous typology for the actuarial profession was Jack Moorhead, the author of the profession's definitive history, *Our Yesterdays*. Moorhead observed that there are two general classifications of actuaries—"phlegmatic and debonair," saying that he had positively identified only one debonair actuary at the centennial. He quipped, don't look to see if this actuary is sitting next to you; "a characteristic of debonair actuaries is that they never attend general sessions." On a more serious note, Moorhead asked, "Can you not put more of us [retired actuaries] to work for the good of the profession? We have an asset that most of you lack—time."

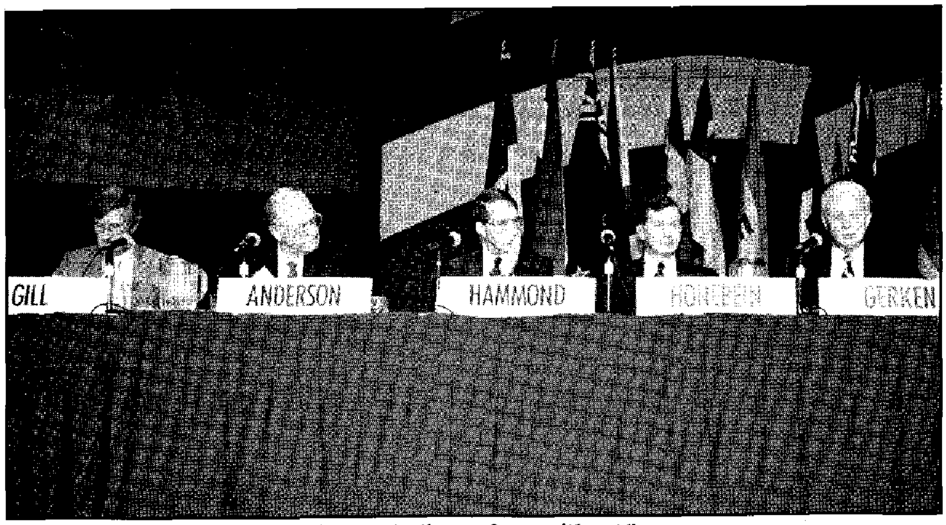
Ferreting Out New Ideas

James Tilley, managing director, Morgan Stanley & Co., provided a synopsis of his essay on mathematical ideas. One challenge for the profession, he observed, "is to step away from the traditional channels of actuarial thought, and to search for the common elements of actuarial models." If we discover these, he said, then we can decide how our future may evolve. One step in this process must be the expansion of actuarial models to include more non-actuarial elements, if actuaries are to tackle social problems such as providing health care to AIDS victims and people of all ages and protecting retirement benefits against inflation.

In the past, actuaries have probably been guilty of thinking too narrowly. For instance, it may be useful in this regard, said Tilley, to adopt a more systems-oriented approach. "Many, if not all, of our actuarial ideas," noted Tilley, "really are expressions of the dynamics—the time evolution—of systems and are embodied in equations of motion." These, he said, "are one of the unifying themes that unite the work of actuaries across their various specialties." When actuarial problems are formulated in a systems framework, and their dynamics can thereby begin to be understood, programs for optimal control can be devised.

"Meeting the scientific challenge for our profession from within," he concluded, "may actually lie from without. I have no doubt that a successful future for actuarial science depends on borrowing concepts and mathematics from other disciplines." Δ

The Challenge from Without



Panelists consider the profession's "challenge from without."

by Jeanne Casey

. . . Praise without end for the go-ahead zeal,
Of whoever it was invented the wheel;
But never a word for the poor soul's sake
That thought ahead, and invented the brake.

Howard Nemerov

"Actuaries function primarily as designers and operators of control mechanisms, whether these are for controlling the adequacy of pension funding, the pricing of insurance products, or the matching of assets and liabilities," remarked session moderator, Ardian Gill. "We don't get much praise for that," he observed, "instead we are often accused of stepping on the brake."

Four panelists, three of them actuaries, were assembled to discuss the challenges to the profession from without, that is, from the publics actuaries are accountable to: their employers, government regulators, insureds, and society. Walter Gerken, retired executive committee chairman, Pacific Mutual Life Insurance, (and the only non-actuary in the group), began by outlining three factors influencing employers, which in turn determine what employers expect of actuaries.

Employers' Demands

First, with the trend toward internationalization of companies, employers will expect actuaries to have knowledge of international markets and even foreign languages, said Gerken. Second, employers are facing public initiatives like Proposition 103 in California. The public in California thinks "the insurance companies are getting filthy rich" and California voters "don't understand the costs required for the kind of premiums put out there. It's up to the actuaries to state in clear terms what is involved," Gerken emphasized. He added that, in the health area, as federally mandated insurance programs grow, "the likelihood is that employers will expect their actuaries to design government programs that make sense in the social context and that also provide a role for private carriers."

Third, actuaries should gain more knowledge of how products are sold, and even spend some time in the marketing department, Gerken advised. He urged actuaries first to get a good liberal arts education and then to do graduate work in business administration, adding that "the combination of an actuarial degree [the FSA or FCAS] with the broadening of an MBA is a good combination." He concluded: in short, "Employers are looking for broad-gauged actuaries with the communication skills of Ronald Reagan."

Carlton Honebein, president, AVCO Insurance, related what he thought was the actuaries' overriding challenge from employers: "Actuaries have to help the companies make a profit consistently over time and [to] accurately estimate the liabilities that go on the balance sheet."

Insureds' Interests

Next he considered a challenge posed by insureds—product affordability—and advised actuaries to avoid "paradigm traps," such as the presumption that prices have to go higher to meet rising costs. He suggested that actuaries have relied too much on historical data to make future

(continued on overleaf)

projections. Changing demographics are likely to make this "looking out the back window ratemaking process" suspect. An alternative would be to determine first what the buyer can afford and subsequently to arrive at a price, said Honebein. He urged insurance companies to become more aggressive in controlling the costs of their products. "We have to get in there and control what hospitals [and] medical doctors are charging the customer that we are actually paying the costs for," said Honebein.

Government's Imperatives

Robert Hammond, deputy superintendent of insurance and pensions for the Canadian Insurance Department, noted that two years ago the Canadian government passed legislation requiring the chief actuary at the department to perform actuarial valuations of the Canadian social security system and national pension plans, and to send these reports directly to members of Parliament. He added that, since 1987, all property and casualty companies have had to file actuarial reports on the adequacy of claims reserves and liability for unearned premiums.

Hammond said "parallel action" is taking place in the United States. As both countries tackle deficit problems, more thorough cost analyses of pension and other insurance plans will be required. "The challenge will be for actuaries to convince government that they can produce credible results and justify them," said Hammond. "Government will not be satisfied by a wide range of answers," he asserted.

The cost of "safety nets" to cushion the public against the failures of financial institutions has led regulators "to agree that one of the key elements is sound and strong audit and actuarial functions," Hammond added. He said that government will expect actuaries carrying out these activities to put the public interest first and to resolve conflicts in favor of policyholders. And consumers themselves will expect actuaries to see that products are priced adequately to ensure various products' availability throughout an insurance cycle.

Addressing the challenge from government, James Anderson, vice president and director, Tillinghast/Towers Perrin, asserted that insurance and other fiduciaries "prosper best in an environment of benign regulation rather than an unregulated one." Insurers in the United States have long respected and even envied the regulatory climate in Canada, Anderson noted. "The recent consolidation of the regulation of financial institutions into a single department is a rational response to the consolidation already evident among financial institutions in Canada and elsewhere," he said. However, some of the current insurance-related proposals in Canada "have extended well beyond the threshold of benevolent regulation," and would virtually give regulators the prerogatives of managers, according to Anderson. Anderson emphasized, "Management must have the right to make mistakes. Consumers must have the right to take risks."

Society's Mandate

With respect to society's challenge to the actuary, Anderson reflected that "those who know us have come to expect from us an emphasis on duty toward truth," and in his opinion, "commercialization has weakened our stature in this regard." The opportunity exists to bend our views to suit the interests of our particular constituency, and this tendency can be seen in some of our work related to the valuation of insurance companies for sale or purchase, product pricing, the valuation of liabilities, and the funding of pension plans, said Anderson. He warned against any compromise of truth, saying, "Each profession has its own professional soul—ours is the duty towards truth."

In the area of professional competence, society gives the actuary high marks, said Anderson. Although our qualification standards are rigorous, said Anderson, "actuaries in the U.S. suffer by comparison to those elsewhere, since the profession here is fragmented among several professional organizations with no common or even comparable standards for membership."

Anderson related how this fragmentation of the profession among various organizations only compounds the identification problem that actuaries face worldwide. "If any profession is to receive lasting recognition and respect," said Anderson, "society must know generally what it does and who its members are. What we do is not widely known," and that problem is exacerbated when there are a number of professional organizations, "each of which qualifies its own members and even competes with the others for relative status and recognition," he said.

"We, the members of a small and obscure profession, whose members nevertheless have achieved notable success, must demand that our leadership take the steps necessary [for] more widespread recognition and respect. And when our leadership responds to this demand, we must be prepared to follow, no matter how unpopular those steps may be," he concluded.

Society is going to continue to expect much from actuaries, according to Gerken. He underscored keynote speaker Justice Estey's point that the public's interest must be the paramount concern of a professional. Today, society faces concerns as diverse as the issue of providing affordable health insurance to the 37 million in the United States without it, financing Social Security, securing the solvency of major financial institutions, and protecting the environment. "Actuaries should help define the magnitude of these costs," in terms of return on investment, said Gerken.

Jeanne Casey has been managing editor of The Update *since January.*

Academy Hires Director of Government Information

Gary Hendricks, formerly chief economist with the Pension and Welfare Benefits Administration, U.S. Department of Labor, has joined the Academy staff as director of goverment information and chief economist, a newly created position. Hendricks was one of the speakers to address Academy members at this year's Washington Luncheon Briefing. (See May 1989 *Update*). On that occasion, he urged actuaries to meet with policymakers in person: "you are an informational constituency," he said. In his new post at the Academy, Hendricks will be in a position to effect an increased exchange between actuaries and policymakers.

The Challenge from the Leadership

by Gary Simms

"Do more, do it more professionally, and do it more publicly," was the three-fold challenge that the profession's leadership, the five current presidents of the North American actuarial organizations, communicated to actuaries attending the centennial. Their challenge was conveyed via prepared speeches and a subsequent panel discussion moderated by Robin Leckie, himself a former president of both the Society of Actuaries (SOA) and the Canadian Institute of Actuaries (CIA).

Presidents' Vantage

Each president, in turn, provided a brief history of the organization he represents. Kevin Ryan, president of the Casualty Actuarial Society (CAS), commented that it was the 75th anniversary of the CAS, reflecting on its growth from an organization largely devoted to workers' compensation issues to one with a "central mission to develop principles in an ever expanding field." He stated that the CAS will "continue to respond to actuaries' educational and testing needs" and that in future, the CAS "will be larger and will play a larger role in many areas."

Ian Rolland, SOA president, portrayed the SOA's mission as "education, research, and member service." The SOA, which celebrates its 40th anniversary this year, must help the profession to be "relevant to societal needs," according to Rolland. Therefore, the examination and education system must adapt to current and future circumstances, and "provide appropriate numbers of practitioners to meet the public need," he said. Rolland reviewed the results of a recent survey and stated that SOA "members are generally content with their current circumstances, and confident of their futures." He concluded by observing that the structure of the profession "will continue to be an issue until we are able to effectively deal with our publics and with society."

David Hewitt, president of the Conference of Actuaries in Public Practice (CAPP) stated that "practical applications of actuarial science" are the hallmarks of CAPP efforts. He reviewed the contributions of many individual members during CAPP's history, and stated that the diversity of its membership is a source of strength. Noting that CAPP enjoys the smallest membership of the actuarial organizations, Hewitt stated that "we cherish the intimacy" that the present size provides.

Reacting to recent proposals to unite CAPP with the actuaries from the American Society of Pension Actuaries (ASPA), Hewitt suggested that instead of a "complex joinder," CAPP would consider offering membership in CAPP "on a senior level" to all ASPA actuaries.

The CIA president, Peter Hirst, said that the Canadian Parliament's incorporation of the CIA twenty-five years ago "has given us great strength and significant responsibilities as well." Its membership has almost quadrupled since 1965, and with this growth there has been a change in the organization's emphasis. "Conduct now has equal if not greater importance than competence. How we practice and how we should practice" is the predominate issue, according to Hirst. As the CIA continues to ponder whether the credential it bestows is "a license to practice, an educational degree, or both," it will focus on the question of where the actuary's role as an actuarial technician and advisor ceases, and where the role as a professional begins.

Rounding out the initial presentations was that of W. James MacGinnitie, president of the American Academy of Actuaries (AAA). He remarked that, whereas the Academy's original purpose was "to embrace all existing qualified actuaries in the United States and seek accreditation," the Academy's "larger purpose now includes public interface and the formulation of professional practice and conduct guides, and the discipline to enforce them."

The Actuarial Standards Board (ASB), under "the umbrella of the Academy" (in MacGinnitie's words) is a vital addition to the profession in the United States. He challenged the profession to make "an effective contribution to public policy." We need, he said, "to point out the long-term cost consequences" of legislative proposals. Meeting this challenge will, according to him, "require an increased level of money, manpower, and perseverance." MacGinnitie concluded by urging the profession to reverse the tide of recent industry activities, pushing risk back to those seeking to transfer the risk (in pension plans, in claims-made forms, in nonguaranteed elements). The profession should "facilitate the transfer of risk, not justifications to refuse it . . . We must deal with 'how' and not 'why not.' "

Opinions on Strengthening

Panel moderator Robin Leckie then posed his first discussion question: "How will the organizations respond to the key recommendations [of] the joint task force to strengthen the profession?" MacGinnitie noted that the Academy has already begun expansion of government and public-relations efforts. Rolland called the report "a first and small step toward rationalizing our structure" and noted his "personal hope" for more. "Frankly, I'm disappointed" he stated, regarding progress to date, and promised the cooperation of the SOA.

"I'm also somewhat disappointed," remarked Kevin Ryan, "that the thrust of the report centered more on form than substance." The problem is not one of "too many voices, but rather no voice at all."

Leckie then asked the panelists to provide comments on the SOA report on the "Actuary of the Future." Rolland stated that the actuary of the future will have to "pay more attention to communication skills" as well as "management skills." He said that the report will have an impact on "recruiting, education, and virtually all other areas of operations."

CAS President Ryan commented on the phenomenon of "innumeracy" and stated that "the need that drives the communication requirement is astounding." Hewitt, representing CAPP, remarked that the "real challenge is to invite a broad spectrum to our profession, and then admit them."

Leckie next asked how actively the profession should address social issues. Kevin Ryan called such activity "dangerous" and cautioned that "we should not take positions on the advisability of social programs." Ian Rolland argued that "we need to do much more," and stated that "the public has little understanding of underwriting, risk classification, or class pricing." He urged a strong actuarial role in educating the public and policymakers. David Hewitt advised the profession to "illuminate social issues with actuarial aspects" and thereby offer society informed alternatives. Peter Hirst remarked simply, that addressing social issues "is more than a role, [it is] a responsibility." Jim MacGinnitie concluded by noting that the actuarial perspective often brings "unwelcome news," but that we "must find ways to deal effectively and efficiently with the means to satisfy the needs of society."

Gary Simms is general counsel for the Academy.

The Response to the Challenges

by Jeanne Casey

This final session recapitulated and further highlighted many of the broad challenges that had been considered over the course of the centennial meeting.

Jack Byrne, chairman of Fireman's Fund Insurance Company; Sydney Jackson, chairman of the board of the Manufacturers Life Insurance Company and one of the original organizers of the Canadian Institute of Actuaries; and Robert Winters, chairman and chief executive officer of the Prudential Insurance Company of America, were, in moderator Tommy Bowles' words, "perched on Mount Olympus," that is, prepared to offer their individual perspectives on the challenges besetting the profession today.

Competition and Team Problem-Solving

The panelists were shot questions by Bowles, and in Jack Byrne's case, kidded a good bit as well. Bob Winters responded to the first question—how does technology and competition from other professionals affect the actuary?—by noting that "we have seen the old actuarial function folded into business units designed to take organizations closer to their customers. We've seen more use of teams in both problem solving and problem identification."

Jackson concurred that the team approach to problem solving is now standard, commenting on changes in the character of the life insurance industry. Such a team often includes not only an actuary but also a lawyer, marketing person, and accountant, he said. He pointed out that the increasing pressure on profits in the life insurance industry is another dramatic change. "Competition in the short-term products that we're offering has meant that we have very thin margins on our new products. We have been protected to some extent by the profits on our old business, but now we see replacement of our old business with falling interest rates— that's a whole new era for the actuary," said Jackson.

Casualty/Property in Relief

Jack Byrne then was asked to compare the actuary in the casualty/property arena to the life actuary. He picked up on Winters' point that actuaries in the future would be working on less well-structured problems, and he made the observation that casualty/property actuaries tend to work much more on less well-structured problems than do life actuaries. He also said that in his opinion "young casualty/property actuaries tend to get into the marketing and distribution and product-design side of the business muchearlier."

The fact that "the commercial liability business for the last fifteen years has not made . . . a decent return on owners' capital" is the overriding problem in casualty/property business today, according to Byrne. "I try to think hard about whether we actuaries who work in that business are part of the solution, whether we're part of the problem, or whether we're just irrelevant. And I haven't decided yet," remarked Byrne.

Byrne outlined his "balance-sheet actuary" concept. He identified the terrible cycles that the casualty/property business goes through. His thesis being that the cycle largely is caused "by the fact that our balance sheets are never stated properly.

"In 1981 and 1982 we were telling the world that we had roughly $50–$55 billion of policyholder surplus standing beneath our casualty property liabilities," he continued, "when in fact, as time now shows, we really only had about $10 billion of surplus—10 instead of 50. And that was because the balance sheets were not stated correctly. Mostly, our loss reserve was way off; our bonds were not worth what we were carrying them for. . . ."

"I like an actuary who says this is your balance sheet, and five years later you look back and say 'Yeah, he called it pretty close,' " said Byrne.

International Marketing

Sydney Jackson said that, in the next ten years, internationalization's impact on the insurance business in the United States would be dramatic. Until now, "the American life business has been highly regulated by over fifty jurisdictions, and it has been rather insular," he said. Given a big domestic market, there has been little incentive for companies to go international. But that will change, according to Jackson, because the American market is relatively mature, many industrial companies are already international, and the European common market in 1992 will offer great opportunities. He anticipates further "harmonization of some of the regulations," as the trend toward internationalization continues.

Revamping Education and Exams

Bowles reflected that the professional leadership was calling for a rethinking of the actuarial education and examination system. He asked Jackson to comment on what education was necessary to become the "right kind" of actuary, that is, an actuary prepared to respond to society's needs. Jackson responded that "there is no particular, one 'right kind' of actuary." Effectively, the talents, training, and ambition that any individual actuary exercises in meeting the needs of his or her employer all contribute to that actuary being "the right kind." Jackson emphasized that the actuary "doesn't need to be more of a businessman than a mathematician." The actuary has to show a willingness to change, however. Not only should he put a premium on continuing education in his own discipline, but he should be willing to explore new areas, said Jackson.

Reviewing employers' expectations of actuaries in a changing business environment, Bob Winters pointed out that businesses have moved from rather established and stable structures to dynamic ones. Winters suggested that the qualifying process for actuaries has not reckoned with that yet.

National Recognition Elusive

Winters reflected on the long-held hope of the actuarial profession in the United States—a federal charter. The Canadian Institute of Actuaries, and through that organization, the actuarial profession in Canada, has been federated by the Canadian Parliament for some time. Winters explained U.S. actuaries' difficulty in getting a congressional charter as resulting, in part, from the tradition of anti-elitism in the United States. To effectively claim a domain of exclusive operation, it is incumbent upon the profession not only to clearly define what it does, but convince a skeptical public that its members alone can do it. But if the public thinks that "bookkeepers can do loss expense reserves as well as actuaries, I think the U.S. tradition would [rule] that bookkeepers ought to be allowed to do it too," said Winters.

With respect to our garnering an exclusive practice domain, Winters pointed out that "we've succeeded to some degree, but not in the fashion that many had hoped in connection with the responsibilities of an enrolled actuary." He added that he thought that the hope for such recognition would continue "to burn in the actuarial breast, but . . . that the history is rather forbidding in terms of the likelihood of our making significant progress."

A Wrenching Proposal

Jackson put forth the idea of the Canadian Institute of Actuaries separating from the Society of Actuaries and offering their own qualifying examinations to actuaries in Canada. He emphasized that his proposal was his own (not necessarily representative of Canadian actuaries) and that it was offered constructively, as a possible way to help the U.S. organizations present a united front as they seek federal recognition for the profession in the United States.

He said he thought that the Canadian Institute of Actuaries was of a size now that it could write its own examinations. Bob Winters challenged whether "the property/casualty side is strong enough in Canada to stand on its own feet." Jackson acknowledged "Casualty is a problem, there are a lot of problems," deeming his thought of separating "an emotional wrench." He continued, "I reluctantly put it forth, but I think that if it helps the American problem, which I think is very serious, I think it should be considered." Bowles acknowledged that this was not the first flirtation with such an idea.

Presence in Public Debates

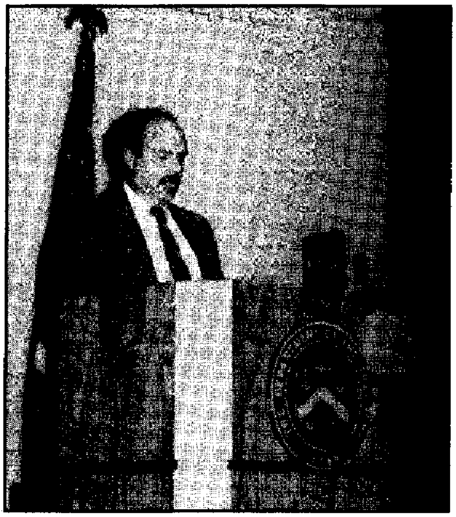
Jack Byrne then took up the question of how the profession could more effectively contribute to public policy debates. He commented that he didn't have much to add to what Academy President Jim MacGinnitie had said at the earlier "Challenge from the Leadership" session. A profession of 9,000 has only 9,000 votes—and "it is very hard to get the ear of the congressman or senator unless you carry a constituency with you. Of course, our constituency is truth," he added.

Sydney Jackson and Jack Byrne both agreed that "it's much easier for us to speak out as individuals than to speak out through the organization," which almost always involves "a watered down consensus," according to them.

Benediction

In conclusion, Tommy Bowles encapsulated the actuary's challenge—the challenge of becoming a true professional. "The organizations can't do it, the leaders can't do it, but with courage, with discipline, with vision, with dedication, hard work, integrity, and by seeking the truth . . . we will be able to realize our professional careers . . . and we'll move into a bright future." Δ

Thompson Testifies at IRS Hearing



Representing the Academy's Pension Committee, Jack Thompson testified at a June 29 Internal Revenue Service (IRS) hearing on proposed regulations on the integration of pension plans with Social Security. Thompson told IRS and Treasury officials that provisions in the proposed rules governing PIA offset plans (plans that base their offsets on a percentage of the Social Security Primary Insurance Amount) should be reexamined, since fully five out of eight integrated plans are the PIA-offset type. "Conceptually," he said, "it is a lot more palatable to take an existing plan design and add a couple of additional limit tests, than it is to completely throw out the approach and start over." Thompson also expressed concern that plan sponsors have been waiting nearly a year and a half for integration regulations. "Plan sponsors need to know all the factors affecting plan design in order to make decisions appropriate for their organizations," he said. Δ

Qualifications, C.E. Reports Adopted

At a June 22 meeting, the Academy's Board of Directors adopted the final reports of the Committee on Qualifications and the Task Force on Continuing Education Recognition. Copies of these reports are included in this month's *Update* mailing.

The Qualifications Committee report has two major aspects: it reformats existing qualification standards, and it creates a new general qualification standard for statements of public actuarial opinion. The committee anticipates increases in the number and scope of qualification standards in the near future.

The report on continuing education recognition recommended that specific continuing education requirements be added to existing and future qualification standards. While the task force's name reflects its original purpose: to outline terms for the *recognition* of continuing education, the task force and the board have now focused attention on the need to enhance qualification standards through significant continuing education requirements relating directly to the subject matter of each qualification standard.

The policies reflected in these reports will be implemented officially on January 1, 1990. It is expected that exposure drafts of several new qualification standards will be released later this year.

Call for Volunteers

Please consider volunteering to serve on one of the Academy committees. Names of the committees and their respective chairs are listed in the Yearbook. You may volunteer either by mailing in the "Committee Service Request" form that was included in your July *Update* mailing, or by calling the Academy office. Committee chairpersons will be told of your interest and encouraged to contact you.

Limited Liability at Lloyd's?— Reinsurance Issues

by Dana Murphy

Although it was not the primary purpose of the centennial celebration to present new actuarial research, the reinsurance breakout session featured a synopsis of a major piece of work by James Stanard (F & G Re) and Russell John (Underwriters Reinsurance Corp.): "Evaluating the Effect of Reinsurance Contract Terms." The session's moderator, Kirk Roeser, believes that the presenters' model, which permits reinsurance actuaries and underwriters to assess the question of relative price adequacy (Is deal A better than deal B?), will have immediate practical application. In essence, this new approach allows the summary of key information, rather than the isolation of a single "optimal" solution.

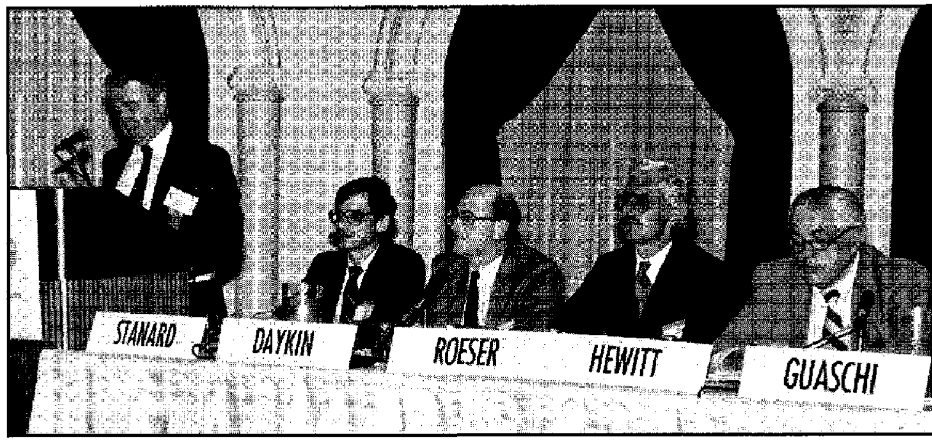
A New Model

Other methods that are commonly used to give actuaries some notion of the relative profitability of deal A and deal B use aggregate loss distributions. But these methods, if used alone, can occasionally lead to the wrong conclusion about which deal offers maximum profitability. In Stanard and John's approach, the efficiency of reinsurance contract terms is measured by estimating the distribution of present value of cash flows and the accompanying investment income. To accomplish this, paid and incurred aggregate distributions are examined as a function of time over the life of a contract. Stanard and John's method also examines the sensitivity of these results to changes in the parameters of the underlying loss model.

Supervisor Sees Challenges

"Reinsurance presents particular challenges to the actuarial profession," noted another presenter, Christopher Daykin, a government actuary in the United Kingdom, "because it's a subject of considerable technical difficulty, while at the same time requiring practical solutions in an essentially practical world, where most of those involved are not mathematicians and are possibly even suspicious of what actuaries have to say."

Reinsurance, he said, is a business that is based on personal relationships, and traditionally it has been carried out



Speakers at the reinsurance break-out session.

between companies that have collaborated for many years. But times have changed: this old pattern has been overthrown, to a considerable extent, by changes in the market. Says Daykin, "There are some disturbing features there, which raise major issues for the parties involved, including the actuaries."

For Daykin himself, as a supervisor, the first issue is the security of reinsurers and the likelihood that the ceding insurers will be able to recover on their contracts, especially in the non-life arena. "For the supervisor, supervising reinsurance is a major problem," commented Daykin, adding that "most supervisors around the world seem to have dodged this issue, and concentrated on supervising the direct-writing companies." Among other factors, the variety and complexity of the reinsurance contracts; the difficulty of determining liabilities, which are often very long-term, variable, and uncertain; and the international nature of the business all make regulation of reinsurers a daunting task.

One major challenge for actuaries is to develop ways of assessing the financial solvency of reinsurance companies, said Daykin, and to develop scientific methods for this effort. Right now, reinsurers themselves (in terms of their own retrocessions) as well as direct insurers, brokers, and supervisors are devoting sizable assets to this task. Perhaps, said Daykin, companies should keep trying to assess the amount of their reinsurance recoveries that are recoverable, as well as reflect, on their balance sheet, possible unrecoverable reinsurance (in event of insolvency, or litigation).

Daykin also wonders about the identity of the life reinsurers: "To what extent is the life reinsurer a leopard that's changed its spots?" Each of these companies seems "to have moved from being a traditional bearer of risk to being much more of a financier, or a banker." In many instances, the deals are designed to help finance direct-writing companies with solvency margin requirements, or to get over the initial financial impact of writing new business, or to generate new capital. "There's a clear commercial justification for such contracts," said Daykin, "but once one gets in this area, one inevitably seems to get closer and closer to a situation where these contracts are designed to circumvent statutory requirements. I gather that these concerns are on this side of the Atlantic as well," he concluded.

Lloyd's Dilemma

Francis Guaschi, with the U.K. firm Bacon and Woodrow, spoke on new developments at Lloyd's. In the past few years, the underwriters at Lloyd's finally have broken from their tradition and have begun to draw upon the talents of actuaries, especially in the area of IBNR (incurred but not reported) reserves. Actuaries can provide Lloyd's with objective judgments on the adequacy of reserves, judgments that are immensely useful in dealing with the "Inland Revenue" (the British equivalent of the IRS).

Guaschi also reported that, during the last year, Lloyd's underwriters have been discussing the idea of limited liability. Given the catastrophic nature of risks such as environmental pollution and large-scale asbestos removal, "it's quite clear to many in the Lloyd's market that the day will have to come when limited liability will have to be accepted." But after 300 years, the people in the Lloyd's market are "loath to bite that particular bullet, because it will then make them virtually into insurance companies." However, Guaschi said that he sees "no alternative."

Dana Murphy is the editor of Contingencies.

Health Policy and the Actuary

by Bartley L. Munson

Ninety-one actuaries can't be wrong. At the centennial celebration's health care session, actuaries completing a ballot on five resolutions strongly agreed that the profession should be more involved with the policy issues relating to a subject that concerns vast numbers of Americans: availability of health care. Their resounding consensus was tempered, of course, with comments that the health care actuary should proceed with caution into the arena of public debate.

The panel of Howard Bolnick, president of Celtic Life; Timothy Harrington, actuary with Blue Cross/Blue Shield of Massachusetts; and John Hartnedy, vice president and chief actuary, Golden Rule Insurance, debated five resolutions. After each resolution was debated, the audience cast written ballots indicating their level of agreement or disagreement with the resolution. At the end of the session, the ballots were collected and tallied.

Before attendees voted on the first resolution, John Hartnedy and Tim Harrington debated an issue that would polarize both the panelists' discussion and the audience's ballot responses: should social issues concerning access to health care be distinguished and kept separate from insurance issues or not?

An estimated 37 million Americans out of a population of about 250 million—that's 15% of all Americans—have no health insurance, according to Hartnedy. Resorting to *Webster's*, Hartnedy defined some key terms that were significant to the debate. He reflected that insurance, as defined, had to do with insuring against "loss," defined as "the amount of an insured's financial detriment due to occurrence of a stipulated contingent event."

Hartnedy proposed that insurance's purpose is to protect assets, and that, in this sense, the poor do not have an insurance problem—they have no assets to protect.

People are in one of four positions vis-à-vis health insurance, Hartnedy reflected. They (1) have health insurance; (2) can afford it, it's available to them, but they don't buy it; (3) can afford it, but they can't buy it; or (4) they can't afford it. Access to health insurance for the fourth group is not an insurance problem, but a social issue, if you accept Webster's definition of insurance, said Hartnedy. But "society has redefined insurance, and we have allowed society to do it," he said. Hartnedy resolved that actuaries could help solve the social dimension of the insurance problem, only in concert with other professions.

Harrington said that he, unlike Hartnedy, did not believe that we could separate the social issues from the insurance issues. The public views health insurance as a right, and the principle of equal access is increasingly emphasized in policy debates. Harrington said that what's called for, then, is a complete rethinking of the insurance market. The challenge within the profession is to try to expand private health insurance by increasing the risk pool's size, for example.

Attendees had their say too. **Resolution 1** stated: **"Health actuaries must take an active role in helping to solve the problem of access to good health insurance."** Eighty-one percent of the attendees agreed. Several of their open-ended comments suggested that we should be very active in doing what we can to help solve not only insurance problems, but attendant social problems, such as access to health care, as well. One respondent suggested he would change his vote on resolution 1 from "disagree strongly" to "agree strongly," if only the word "care" were substituted for "insurance." Indeed, most comments seemed to diverge around the issue of whether availability of health "care" and availability of health "insurance" should be addressed as two distinct problems or as one and the same. Other comments urged health actuaries to be sure that their insurance product costs are realistic and pricing assumptions sound.

Resolution 2: "Health actuaries should play a greater role in influencing policymakers regarding major health care and health insurance policy," brought the strongest support. Some 98% of the voters agreed. Their comments centered on the actuary's role as expert witness. Emphasized was the importance of helping the public and policymakers understand sound insurance practices. Some said that we must estimate costs and design funding programs to help secure coverage for more citizens.

Resolution 3: "Health actuaries must take a much more active role in reducing over-utilization and price increases which make insurance prices almost confiscatory." Around 76% agreed, suggesting we focus on product design and development. We should present facts, respondents advised. Some cautioned that, as a profession, we should not speak to serve the interests of either the government or the insurance industry, but to objectively share information.

Some suggested we should inform the public and policymakers on the cost of mandated benefits, over-utilization, and the implications of cost shifting. We should work to help make insurance affordable, yet not for insurance to be seen as a resource to be used for all solutions just because it is there.

If health actuaries are to act effectively on these first three resolutions, we might need to improve our capability to deliver. Hence the last two resolutions.

Resolution 4: "Health actuaries can and should do something to improve their profession's research, which is at an unacceptably low level."

In their discussion, the panel suggested that there was a wealth of relevant data to assist the actuary in making good decisions for health care, both in terms of national policy and private insurance. However, we meet several constraints, according to Bolnick. There are difficulties relating to developing meaningful private-sector databases, learning to use public databases, and marshalling resources to expand research. Even so,

(continued on page 14)

Health care break-out session panelists.

Woman's Status a Matter of Mortality, Says Actuary

by Alan Kennedy

For the eons that the human race struggled to survive in the face of disease, external threat, and high infant mortality, women had no choice but to conceive early and often and to devote themselves full-time to rearing young. Of course, women faced a particular, additional risk: death in childbirth. In pre-modern times, women's average life expectancy was only about fifteen years; men's a few years longer, according to Barnet Berin, managing director and chief actuary, William M. Mercer Meidinger Hansen.

Because of their greater longevity, men "naturally" functioned as leaders. Women bore children and reared them. Men protected and hunted. And this sex-defined division of roles for the sake of collective survival led to "the emergence of masculine superiority patterns in family, social, and communal relations," Berin told attendees at the centennial meeting. And this pattern "persisted everywhere for millions of years until recently," according to Berin, and George Stolnitz and Aaron Tenebein, coauthors of the research paper, "Mortality Trends of Males and Females Over the Ages."

The basis for the "numbing" estimate that life expectancy at birth averaged only fifteen to twenty years in ancient times, Berin said, was paleodemographic research summarized in a paper by Shigekazu Hishinuma, former president of the Institute of Actuaries of Japan, and more recently president of the Japanese Institute of Gerontology. These studies include skeletal, tombstone, and other archeological evidence from ancient Greece and Rome, medieval Hungary, seventeenth-century London, seventeenth- and eighteenth-century Germany, and the modern era, when life tables began to be compiled.

The historical estimates are admittedly soft and include a large margin for error, Berin cautioned. But the pattern of males living longer than females in the pre-modern era is found in virtually all areas studied. Men's edge in life expectancy was greatest—five to eight years more (that's 33% to 53% longer)—at the ages of greatest fertility and greatest maternal mortality.

Now that the brutal conditions of the past that affected mortality rates no longer pertain, at least in developed and developing countries, there have been huge and rapid increases in life expectancy—from an average life expectancy of fifteen to twenty years from prehistoric times through the 1700s, to thirty years by 1800, and fifty years by 1900. By 1980, the average life expectancy at birth was seventy years and over, and the gender trend had been reversed: women now outlive men—by about seven and one-half years.

Era	Estimated Expectation of Life at Age Zero
Millions of Years Ago	15 Years
1800	30
1900	50
1980	70M, 77.5F

"One may reasonably expect that female struggles to achieve fully equal status, within and outside the family, are bound to be much reinforced," Berin said. "If males historically could not be challenged in societies beset by population-threatening mortality, it should follow that today's radically transformed vital rate conditions might well indicate ever-rising sociopolitical and economic potential for women," concluded Berin. Put another way, low life expectancy was the reason why women infrequently became leaders, scientists, and artists in the past, and this reason has now been removed, Berin told press attending a June 13 briefing in Washington, D.C.

Alan Kennedy is a technical writer for the Actuarial Standards Board.

HEALTH POLICY
(continued from page 13)

Bolnick viewed research as one of the most positive ways to influence public policy. The resolution to enhance research within the profession was agreed to by 88% of the attendees.

Resolution 5: "Health actuaries should improve their training, to help meet the challenges." Ninety-two percent indicated agreement on the ballot. In the related debate, Harrington underscored the usefulness of courses in medical terminology and health care economics for an actuary who is to design and price products dealing with health care providers.

In sum, this session was intended to (1) inform, (2) provoke examination of the health care actuary's role with respect to broader issues relating to health care, and (3) collect opinion in order to assist our profession's awakening to its role in health care—whatever that should be. These objectives were met.

In the 100-year history of our profession, as its narrative is detailed in *Our Yesterdays* little is said about the health actuary. The health actuary simply hasn't been around that long. But with the level of public concern over access to health care today, we can say with near certainty that the next 100 years are going to be much more significant and exciting for the health actuary.

Bart Munson is principal with William M. Mercer Meidinger Hansen, Inc. He was moderator for this session at the centennial. The ballot results from this session were released to the press at a briefing the next day.

Checklist of Academy Statements June 1989

TO: House Subcommittee on Oversight and Investigations, June 15, 1989. RE: Property and liability insurance. BACKGROUND: This letter commented on the need to strengthen loss reserve certification requirements.

TO: Roxani Gillespie, Commissioner of Insurance, June 15, 1989. RE: Proposition 103. BACKGROUND: This letter offered assistance in analyzing issues relating to Proposition 103.

TO: Internal Revenue Service, June 29, 1989. RE: Pension plans integration rules. BACKGROUND: This testimony was offered at an IRS public hearing to comment on proposed regulations relating to Social Security integration under qualified pension plans.

TO: Colorado Commissioner of Insurance, July 11, 1989. RE: Qualifications for actuaries to sign loss reserve and health care institution financial statements. BACKGROUND: This testimony was offered for the record of a public hearing on Colorado loss reserve certification requirements.

Professional Standards at Home and Abroad

by Christine Nickerson

Standards of practice are an emerging force within the actuarial profession that will affect the daily work of every actuary in one way or another, according to Ronald Bornhuetter, chairman of the Actuarial Standards Board (ASB). Bornhuetter led a panel discussion covering recent developments in the standards movement in the United States, Canada, and the United Kingdom.

In the United Kingdom, standards are set and maintained by the Institute of Actuaries based in London and the Faculty of Actuaries based in Edinburgh, explained Roger Corley, representing the Institute. As a result of the cooperation between these two actuarial bodies, there is one set of guidance notes for all the actuaries working in the United Kingdom. In the U.K., actuaries have had some statutory duties since late in the 19th century. The earliest of these were contained in an act of Parliament relating to friendly societies under which the Treasury could appoint actuaries as public valuers. This use of actuaries for valuation of long-term liabilities appeared in other acts of Parliament relating to life offices and local government superannuation funds.

In the 1970s, with the Insurance Companies Act of 1974, the concept of the appointed actuary appeared. In filling this role, the actuary combined the giving of advice to the life company with a duty to inform the Department of Trade of any concern regarding the financial soundness of the company. The potential conflict in these two roles and the need to reinforce the professional resolve of the appointed actuary was recognized in the decision to prepare the first guidance note (GN1) published in 1975. Since then guidance has evolved, and there are now five guidance notes relating to aspects of life insurance. During this same period, the pension system was changing to allow plans to be contracted out of the state system. This again gave rise to a need for professional guidance and the development of several pension-related guidance notes. Corley described standards in the United Kingdom as a developing system of guidance. An important concern of the Institute and Faculty is to keep guidance as light as possible and to avoid replacing professional judgment with rules, he said.

The level of standards-making activity in Canada is accelerating, according to Robert Chamberlain, representing the Canadian Institute of Actuaries (CIA). Legislation has served as an impetus for development of standards of practice. The first standard was issued in 1979 and relates to financial reporting for life insurance companies. Since that time, standards have been adopted dealing with pension plans valuation, employee benefit plans, property and casualty financial reporting, dividends, deferred pensions, and actuarial reports and testimony. The CIA is now undertaking a comprehensive review of all the existing standards and the way in which standards are created.

Standards-making in Canada involves committees at three levels: practice committees, a committee on standards of practice, and the Council (the elected governing body of the CIA). The job of the eight practice committees is to prepare the documents that lead to the development of a standard. The Committee on Standards of Practice recommends standards for adoption by the Council after due process. The committee is currently examining how standards of practice are created and recommending changes in both due process for standards, and form and content of standards. Acceptance by the CIA Council of these recommendations would result in a rewriting of current standards.

Robert Chamberlain outlined some of the problems with the current standards-setting procedure. Standards development has not been systematic, work on standards has sometimes been undertaken by standing committees and sometimes by special task forces, and the adoption procedures have varied. The want of a system has resulted in a lack of common understanding as to the content of a standard, duplication, and no proper dissemination of dissenting views.

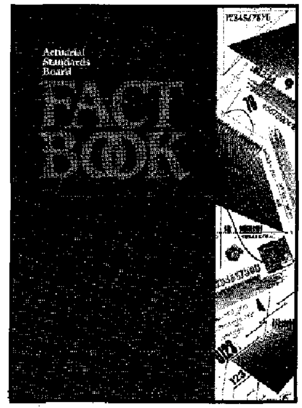
Chamberlain also discussed the issue of discipline. He said that the CIA views the link between standards and discipline to be compliance, and it is considering setting up compliance monitoring procedures.

Acting as devil's advocate and arguing that standards of practice are unnecessary to the actuarial profession, Fred Kilbourne, a member of the ASB Specialty Committee, suggested that such standards supplant the actuary's integrity and judgment by rules and regulations. Written standards as opposed to written principles may be a bad idea whether self imposed or "forced on us by a man with a gun," said Kilbourne. Discussing the presumed need for standards in order to ensure professional discipline, he suggested that the best discipline may be the self-discipline imposed by the desire to gain respect rather than to avoid opprobrium. Kilbourne noted that standards are supposed to offer a safe harbor to actuaries, but suggested that there's no guarantee that standards won't prove to be "more useful to the attacker than the attackee." Finally, he questioned whether the "standardizers" might become a self-perpetuating bureaucracy finding a need for their services in every corner of actuarial endeavor.

John Harding described the U.S. actuarial profession's struggle with the idea of professional standards. It had appeared to many actuaries, said Harding, that professional practice and what they perceived as "cookbook standards" could not coexist. Harding, who served as chairman of the Standards Organizing Committee that guided the creation of the ASB, recounted that a number of actuaries had questioned the need for standards, expressed concern that standards would grow increasingly restrictive, and wondered how standards would be kept current. At the time, the approach to

(continued on overleaf)

ASB Fact Book Released



Included in this mailing of the *Actuarial Update* is a copy of the newly released Actuarial Standards Board *Fact Book*. The fact book explains why standards are needed, the genesis of the Actuarial Standards Board, the structure of the ASB, and why the ASB is affiliated with the Academy. It also describes how standards are developed, the exposure process, the format of standards, and the discipline process.

managing standards was ad hoc at best. Members of the Academy board, responsible for final adoption of standards of practice, often had no working knowledge of the subject matter to be promulgated or any concern with a consistent form or tone. There was an ambiguity and overlap as to the roles of the Academy and the other actuarial organizations in standards-setting.

In response to this situation, the Standards Implementation Committee (SIC) was formed in 1983 to address the issue of standards. The SIC was given the job of recommending a standards management process and of informing the profession about the need both for standards and for a process that could manage the promulgation and modification of standards. The SIC recommended a structure similar to the one now in place—a managing board, and suggested an interim board as a precursor to the final structure. This would allow an opportunity to make certain that such an organization could manage the standards-setting process.

In the fall of 1985, the forerunner of today's ASB, the Interim Actuarial Standards Board, was set up. The IASB proved a success, and in the spring of 1988 the membership passed a bylaw amendment that established the ASB.

Harding reminded the group why standards of practice are necessary to the actuarial profession. Standards serve to ensure the public that actuaries are professionally accountable. At the same time, standards provide practicing actuaries with a basis for assuring that their work will conform to generally accepted actuarial principles and practices.

It is important to assure those outside the profession that actuaries not following standards will be disciplined, Harding noted. The Joint Task Force on Strengthening the Actuarial Profession is studying this issue, he said, and has developed a set of recommendations. Harding told the group that "by producing a genuine standards management process in the U.S., we have made important progress toward building a more effective profession. The added cost of time and money are not trivial, but if we also take action to enforce them they will yield a substantial return to actuaries and to the publics we serve."

Christine Nickerson is director of standards administration, a liaison position between the Actuarial Standards Board and the Academy.

Actuarial Principles vs. the Socialization of Risk

by Dana Murphy

In the United States, there are two basic means by which the public is provided protection from risk. The first is a system of private insurance, which uses risk classification; the second comprises mandatory programs that socialize the risk for the entire population. The problem is, the public is often unable (or unwilling) to understand the technical reasons for the difference between the two systems—politics, simple emotion, and a generally evolving shift in what constitutes true equity in terms of insurance coverage have meant an ever-increasing tendency toward the socialization of risk and the erosion of sound risk classification principles.

The centennial celebration session to discuss this phenomenon was to be, perhaps inevitably, an arena for hot debate.

Risk Classification on the Line?

E. James Morton, chairman and CEO of John Hancock Mutual Life Insurance, related that "Many of the issues in socialization of risk threaten our time-tested ways of doing business. All of our experience and our education in the business teach us the importance of proper risk classification and the importance of setting premiums that are consistent with the true cost of the insurance offered." In general, actuaries themselves are convinced, he added, that "these principles serve as a pretty good mechanism for allocating the social costs of risks."

But the public, all too often, cannot discern the equity of the operative principles in risk classification. "There are growing pressures to adopt alternative approaches because, in many cases, the cost of insurance was felt to be simply too high for some people." Others, he noted, have complained that "insurance pricing distributed costs in a way that was perceived to be unfair." Finally, there has emerged in recent years a "basic belief in the right to protection."

For Morton, the fact that consumerists and politicians, searching for solutions to drastic social problems, may be quite wrongheaded about the technically correct method of computing insurance prices is essentially beside the point: "Insurance becomes a target." In such circumstances, however significant these arguments may be, they are not responsive to the basic issues.

One PR Approach

So Morton's company has gone out of its way to "put significant resources into comprehending those underlying issues or perceived inequities, and to become involved in the effort to find solutions." As an example, he cited a film on AIDS, sponsored by his company, which attempts "to deal with the emotion-laden tragedies of this disease in a way that promotes compassion and understanding for people with AIDS." An additional task mentioned concerned forging alliance with most of the action groups working on behalf of AIDS patients.

Unisex Pricing

More controversial for the actuaries attending the session were Morton's views on unisex pricing: "I continue to feel that blind adherence to technical principle will not serve our basic interests," he said. "There is an evolution of attitudes that is simply inevitable, and if we defended the status quo too fiercely, we would simply be left behind." In the case of arguing against unisex pricing, he said,: "We were, in short, facing a losing battle." John Hancock, in the belief that "we gain little by appearing to be on the bad side of the argument," determined that it could "live with the results" of unisex pricing, especially applied only prospectively.

But Philip Briggs, vice-chairman of the board, Metropolitan Life Insurance, disagreed: "I think that the difference between male and female risks is very substantial and has the potential for causing real competitive problems, in addition to significant questions of equity." Yet, like Morton, he discerns a "trend toward the the greater socialization of risk" in much recent legislation; for example, in Michigan's essential insurance act, which requires insurers to issue an auto insurance policy to anyone who applies. In this instance, the stimulus for the new law is simple—steep increases in prices. To Briggs, it would be much preferable to "attack the underlying causes of the high cost of auto insurance in urban areas," since "spreading the cost does not solve the basic problem and is unfair."

Briggs believes that all too often, attempts to wipe away risk differentiations via legislative and regulatory mandates are "a bit like denying the existence of gravity and just as likely to succeed." He concluded: "I don't believe that the private insurance system should be used to solve social problems." Δ