



THE Actuary

1990-91 Year in Review

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Our Horizons Broaden

THE Actuary

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The art of actuarial science

by Daphne D. Bartlett
 President, Society of Actuaries, 1990-91
 Address at Annual Meeting
 October 22, 1991
 Toronto, Ontario

I'd like to share my vision for the future of the actuarial profession.

It's a future where members of the Society of Actuaries are serving a wide array of businesses far beyond those we currently serve and where we realize that we have the ability to do so.

It's a future where our publics think of us not just as insurance mathematicians, but as "professionals who combine business and analytical skills to price and manage future risks." And it's a future where we really are those professionals.

It's a future where we spend more time as an organization being concerned about external issues and serving the public than we do about credentials, organizational structure, and other internal matters.

It's a future where we have moved away from our traditional thinking about what an actuary is supposed to do and have recognized that we can bring more to the table than just a bunch of calculations. We will suggest ideas for improvement, identify opportunities, and be full participants in the decision-making process.

It's a future where we will think of ourselves as artists as well as scientists, where actuarial work is defined more broadly to encompass business as well as technical skills.

What is the actuarial artist?

We all entered this profession because we are good at math — the science in actuarial science. What many of us have forgotten is that the material we studied in the later exams was mostly business. We learned how to deal not only with the problems that had a single right answer, but also with those problems that didn't have a right answer — the ones that taught us to use judgment, common sense, and far broader skills than just the purely mathematical. This is the actuarial art.

Our original skills are scientific, and we tend to revert to those because



they come to us more naturally. We find it easy to address the structured problems, the scientific ones, the ones that have a right answer. We don't find it as easy to address the unstructured problems — the ones that involve looking at problems differently, coming up with new ideas; the ones requiring creativity, judgment, business acumen, and a sense of the big picture — the ones that involve the actuarial art.

actuarial science that we have all studied and applying those principles to new areas — to any area where there are risks to be evaluated and managed.

The Task Force on the Actuary of the Future has devoted its efforts this year to addressing this issue. To summarize its recommendations:

- The Society of Actuaries must develop a major initiative to market the skills of its members to potential users of those skills.
- The Society must modify its basic and continuing education offerings to provide training for members who wish to pursue these new avenues.
- The problem is urgent.

However, please don't wait for the Society to do this for you. Have confidence in your intelligence and your ability as an individual to research and learn on your own about new businesses beyond those that were covered in the Study Notes.

With respect to the perception of what an actuary is and does, broadening our scope means showing the public and existing and potential new employers that we are not just technicians. It means showing them that we are managers, creative thinkers, and professionals with the courage to do

"It's a future where we think of ourselves as artists as well as scientists."

If actuaries are going to matter, and if we are going to survive, we must change. The actuary of tomorrow will have to put just as much emphasis on actuarial art as on actuarial science.

There's not much point in having a vision of the future if nothing is done to get there. A lot has happened during the past few years to build the foundation for our future. We are ready to begin to broaden our scope.

We must find potential new areas of employment, given the narrowing of our traditional areas of opportunity, the growth in our numbers, and the huge public need that exists for people with our training. Broadening our scope means using the principles of

what is right — "professionals who combine business and analytical skills to price and manage future risks."

We can demonstrate to the public that actuarial research is more than the generation of mortality studies or development of new non-forfeiture methodology. We can do this by defining actuarial research to be anything that has an actuarial component, rather than restricting ourselves to only those limited areas that can be described as exclusively actuarial.

This work has begun. The Committee for Research on Social Concerns has appointed two task forces in the last year. One is just in

Continued on page 4 column 1

President's address cont'd

the process of formation and will perform research on life insurance guarantee funds. Its objective will be to review the current systems and to offer suggestions for improvement or change, and it's looking for volunteers.

The other task force, for research on life insurance sales illustrations, has completed the first phase of its work, and its preliminary report was discussed in a session at the annual meeting.

What is different about these two projects? First, the reports will contain more words than numbers. Second, the areas being explored could be described as not being exclusively actuarial, unless you recognize that they are using actuarial art, as well as actuarial science.

Another project underway also will broaden our image as being more than number-crunchers. This is the work of the recently appointed Task Force on Long-Term Care Insurance Valuation Methods. Earlier this year, the NAIC asked the Society to develop morbidity tables for the valuation of long-term care insurance. Tables were fine for the old days before computers. Are they fine for today even if the historical data were available in sufficient quantity?

We persuaded the NAIC that the Society of Actuaries could better serve it by developing a methodology for

valuation of long-term care coverages. The methodology might include tables, but it also should include more.

The NAIC liked this idea so much that it extended its request for methodologies to life insurance and annuity valuation as well. I'm leaving those projects to my successor.

A more modest effort to broaden the public image of the actuary was the profession's response to the infamous left handed mortality study. Several people have commented that we should not be wasting our time on such trivia. Please understand that this study was published prior to the

current solvency situation. The objective of the rebuttal was to take advantage of the wide publicity given to the study to get across the message that actuaries are more than insurance technicians, and to possibly create some future employment opportunities for actuaries to assist in the preparation of the many similar, possibly erroneous, studies about mortality that the public reads about every day.

Our ideal future would have us more concerned about external issues than internal ones. Today, that's not the case. During the last year I have probably spent more time discussing the organization of the actuarial profession with members than anything else. But it is the least important of all the issues we have to deal with.

Yes, it would be wonderful if we had a tidier organizational structure. It offends our mathematical sense of order that there are so many organiza-

tions with "actuary" in their names. The fact is that nobody cares except us, and wishing is not going to make any organization go away. Hardly anyone cares about actuaries, unfortunately, so how can we reasonably expect anyone besides ourselves to care about the fine distinctions between our various organizations and membership qualifications? It really doesn't matter even to us how many organizations there are as long as we cooperate so the profession is funded efficiently and that, wherever possible, we work together and all don't do the same things.

"Broadening our scope means applying the principles of actuarial science to any area where there are risks to be evaluated and managed."

There have been many attempts at reorganization over the years. All have failed. It was a major breakthrough when it was recognized that trying to reorganize was a waste of energy. A far better course of action was to agree to agree. The Working Agreement, signed last year, is a commitment to cooperation between the six organizations representing actuaries in Canada and the United States. I sincerely hope that its spirit will not die. I hope that future leaders of the profession will continue to build on it and not fall back into the "us versus them" attitudes that have been prevalent in the past. Our profession cannot afford to waste its scarce volunteer resources on such unnecessary squabbling when there's so much really important work to be done.

What better time to examine our traditional thinking about ourselves and our profession and what actuarial work is all about than now, when all our preconceived ideas about life insurance company solvency have been shattered?

Conversations I have had recently about the life insurance company solvency situation in the United States clearly indicate there is a strong difference of opinion about what an actuary should be. Some feel that the exclusive actuarial role in this situation should be to slowly and carefully develop new and better ways of measuring and funding for risk. The movement to develop a system of risk-based capital is an example of this approach. These are the people who define the actuary as a scientist.

Others, including myself, believe that the actuary should take not only the scientific approach but also play a far more immediate and proactive role in the situation, looking at a much broader range of issues and opportunities. One example would be the implementation of a stronger

Appointed Actuary system in the United States which could involve the actuary in all aspects of the operations of the insurance enterprise rather than just a few. Another would be to focus on product design changes to better protect against "runs on the bank." And what about developing new and improved ways of rating life insurance companies? These are the actuaries who believe we are both scientists and artists.

We claim to be professionals. Being a professional takes courage. We have to have the courage to speak up, to get involved, and to assume the risks that will result from a broadened scope for the actuary, the risks that will allow us to fulfill my vision for

the future. I challenge all of you to have that courage.

My objective today has been two-fold. First, to encourage those of you who have the interest and desire to broaden your scope, to put the art in actuarial science. Second, to recognize that not all of us are cut out to be actuarial artists. That's fine.

But, if you choose to remain as a scientist, please try to understand that there is room for art in our work, and that you should accept and encourage the artists in our midst. It's for the long-term benefit of all of us.

It's been a wonderful year. I can't leave without a few thank you's:

- To the Board of Governors and particularly the Executive Committee, for their energy, their

enthusiasm, their hard work and, most of all, their support

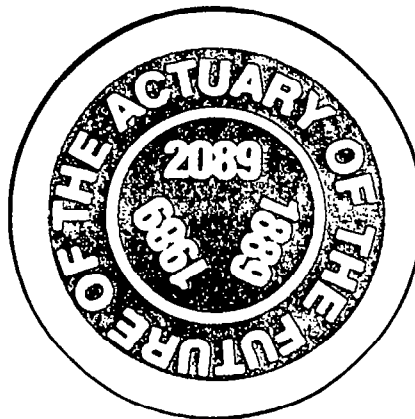
- To those of you who served on committees so generously, for your time and your commitment to the profession
- To the Society staff, for their patience with all of us, their loyalty, and their good humor through thick and thin
- To John O'Connor, for his wisdom, his intelligence, and his friendship
- To all of you, for giving me the opportunity of a lifetime

I hope I have served you well. Thank you.

Year of work results in nontraditional opportunities plan

The Actuary of the Future Task Force's report at the October Board meeting reflected a year of extensive discussion and analysis. The Board endorsed its 12 recommendations, and the task force will be working with the 1991-92 Planning Committee to implement them. Following is a simplified list of these recommendations:

- (1) The Society should develop career planning prototypes for individual actuaries to develop paths leading from where they are today to new opportunities.
- (2) The Society's basic and continuing education processes should be reviewed and modified, if necessary, to provide direction and support for this plan.
- (3) The Society's recruiting objectives and preliminary examination and informational brochures should be revised to highlight actuaries' career potential beyond the traditional environments.
- (4) The Society should expand the role of actuaries within traditional employers.
- (5) The Society should establish a crisis task force to examine the criticism that actuaries often do not



perform traditional functions with enough business perspective.

- (6) The Society should charge an implementation task force to develop relationships with targeted nontraditional employers and to prepare Society members for new roles.
- (7) Seminars, programs, Section agendas, and other efforts should be carefully crafted and marketed to send messages consistent with expanding roles and opportunities.
- (8) The Society should work with universities, search firms, and other

centers of influence to both improve our understanding of what employers need and determine how to best communicate the profession's capabilities and objectives to them.

- (9) The Society should implement a public relations effort to
 - educate members about their broader potentials, using an individual career planning perspective
 - obtain a first-hand understanding of current employers' perceptions of actuaries
 - educate targeted nontraditional employers about the value of actuarial skills in their businesses.
- (10) The Society should initiate white papers and research to establish actuaries and the profession as generalists in shaping and managing critical emerging issues.
- (11) The Society should establish a financial track in the examination system to emphasize the broader financial principles essential to the profession.
- (12) The Society should review ongoing efforts to develop principles of actuarial science to properly support this plan.

Annual financial report

by Michael R. Winn
Treasurer, Society of Actuaries, 1990-91

The Society of Actuaries operated in fiscal 1991 with a budget of \$12.4 million in revenue and just under \$12.1 million of expenses, a margin of only 2% of budget. The results for the year, including investment income, exceeded those budgeted, producing a contribution to surplus of \$1,084,000, the largest in the Society's history.

The following charts show the sources of Society revenue and how these funds were spent. For the fiscal year ended July 31, 1991, total revenues of \$12,381,000 were 101% of budget, while total expenses of \$11,297,000 were only 93% of budget.

Self-supporting activities
Three major activities – Education and Examination (E&E), Meetings, and Seminars – are budgeted to operate on a self-supporting basis. This means these activities are expected not only to break even but also to provide a margin to contribute to membership equity. The table shows a trend of substantial growth in both revenue and margin contribution from these activities.

E&E activities continue to be the largest single source of gross revenue, accounting for more than 48% of total revenue. As in recent years, E&E again had the largest excess of revenue over expense, accounting for \$1,319,000 of the total margin from the self-supporting activities.

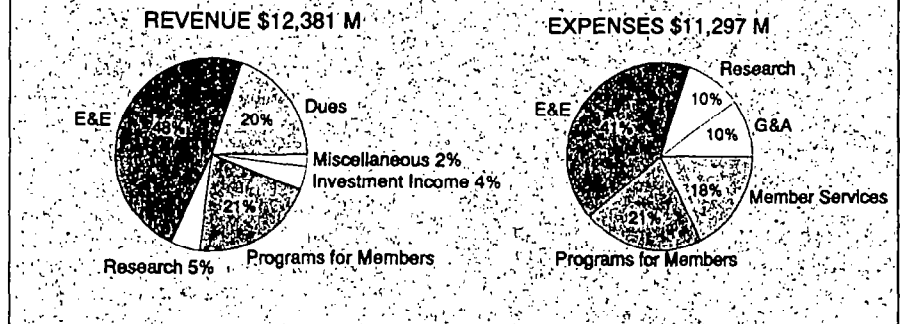
Membership programs, which comprise meetings, seminars, and symposia, made a combined contribution to surplus of \$195,000.

Research

At the 1988 Annual Meeting, the Board of Governors made a major commitment to expand the Society's

	Revenue	Expense	Margin
1986	\$3,038	\$2,878	\$ 160
1987	3,849	3,710	139
1988	4,954	4,492	462
1989	6,028	5,581	447
1990	7,075	5,871	1,204
1991	8,530	7,016	1,514

1991 REVENUE AND EXPENSES BY CATEGORY



research activities. Prior to that time, research expenses consisted mainly of the annual cost of experience studies, which were more than covered by revenue from this activity. Until funding of research efforts becomes sufficient to cover expenses, the Society will continue to anticipate and budget for deficits in the research area. The 1991 deficit amounted to \$546,000, slightly more than the previous year's deficit of \$538,000.

Other activities

Expenses for all other activities – Membership Services, Public Information Programs, and General Administration – exceeded income by \$343,000. These activities are not expected to be self-supporting and include items such as public relations efforts and publications that are provided with membership in the Society.

They are principally funded by membership dues. Dues now account for only 20% of total revenue and support only 22% of total expenses. These percentages have shown a declining trend that will continue into the 1990s.

Membership equity

As of last July 31, membership equity stood at \$4,522,000, or about 36% of expenses in the proposed budget for the fiscal year 1992.

A complete report of the Society's finances and an audited statement from Selden, Fox and Associates, Ltd. will be published in *Transactions*. They have been reviewed by the Administration and Finance Committee and the Executive Committee and approved by the Board of Governors.

Dues

At the Board meeting in June, the Administration and Finance Committee presented a 1992 budget of \$13.1 million, largely supported by growth in income from self-supporting activities. Because of our current surplus position and the continued growth in revenues from self-supporting activities, the committee recommended no dues increase for 1992.

The Board approved this recommendation and a budget with a projected excess of revenue over expense of \$352,000 for the fiscal year ending July 31, 1992. The years ahead show further increases in the trend of the Society's income shifting away from dependence on dues and more toward fee-for-service activities.

Membership Statistics November 1, 1991

Membership, Nov. 1, 1990	
Fellows	6,453
Associates	6,006
Total	12,459

Increase through:	
Examination	950
*Election	28
Reinstatement	47

Decrease through death or withdrawal	118
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Membership, Nov. 1, 1991	
Fellows	6,715
Associates	6,651
Total	13,366

*Fellows of the Institute of Actuaries (United Kingdom), the Faculty of Actuaries (Scotland), and the Institute of Actuaries of Australia may be elected Associate members of the Society of Actuaries upon review of their applications.

1990-91 Year in Review

Our horizons broaden

It was a year unprecedented in recent history for the financial services industry...a time of intense public scrutiny and self examination. The economic, societal, legislative, and regulatory environment propelled the industry into a defensive mode — to protect products and customers, ratings, employees, and even the solvency of the companies themselves.

Public confidence in life insurance companies was shaken. Voices calling for various solutions, such as federal regulation, market value accounting, risk based capital standards, and an increased role for the valuation actuary, carried more impact than ever before.

These issues were of vital importance to the actuarial profession. At the same time, many actuaries were seeing their own job security threatened for the first time. As companies looked at the bottom line in a weak economy, personnel cuts went deep.

Uneasy questions from those in the profession surfaced:

- Will the actuary survive and prosper in the present climate?
- Is there room in the profession for the increasing numbers headed for actuarial careers?
- Shouldn't we use our actuarial skills to analyze many kinds of business decisions, including what is found on the asset side of the balance sheet?
- Do our present set of skills prepare us to take on new responsibilities and expanded roles or to move into new areas of practice?

It was not a year to be complacent; that was clear to the 1990-91 leadership of the Society of Actuaries. It was a year of opportunity — to examine the status quo, rethink traditional approaches, explore new areas, and expand actuaries' roles in the business world. The officers and Board of Governors took up the challenge. During the year, they began and, in some cases, completed projects of major significance for the future direction of the Society and the actuarial profession.



Four generations of Presidents gather at the September Executive Board meeting: (L-R) President-Elect Walt Rugland, who will be the 1992-93 President; 1991-92 President Don Sondergeld; 1989-90 President Allan Affleck; and 1990-91 President Daphne Bartlett.

In her message in the January *Actuary*, President Daphne Bartlett urged members to "broaden traditional ideas about ourselves...to use our education, intelligence, and strong personalities to assert ourselves." This vision of a profession broadening its scope to realize its full potential in the business world marked the 1990-91 Society of Actuaries program year. The following pages highlight some of the most significant activities.

Expanding roles and opportunities
The 1990-91 Actuary of the Future Task Force set the course for a program that could have wide-reaching implications for actuarial careers. Its charge was three-fold:

- (1) to identify nontraditional roles and opportunities for actuaries
- (2) to develop a plan for motivating actuaries to consider nontraditional roles, and to inform, educate, and motivate nontraditional employers to use actuaries in these roles
- (3) to help members prepare for these new roles

The task force reported its progress in the June 1991 *Actuary* and presented its recommendations at the Board meeting in October 1991. These recommendations are outlined in an article on page 5 of this issue.

Responding to solvency concerns
This fall the profession's public interface organization, the American

Academy of Actuaries (AAA) in Washington, D.C., formed a high-level task force to develop a public position for the profession on solvency issues. Society of Actuaries' President-Elect Walter Rugland, who was chairperson of the Joint Committee on the Valuation Actuary, serves on the task force and will coordinate its activities with the Society. Daphne Bartlett and Vice-President David Holland also will serve on the task force.

The work of the Joint Committee on the Valuation Actuary, which includes representatives from five actuarial organizations, took on increased importance this year as the Appointed Actuary concept moved toward becoming law in Canada and the United States. Appointed Actuaries will be responsible by statute for preparing an opinion on a life insurance company's reserves. A May 1991 *Actuary* article detailed the changes in the Standard Valuation Law (SVL) initiated by the National Association of Insurance Commissioners (NAIC) to establish the Appointed Actuary. These changes provide a broader role for valuation actuaries.

The 480-person attendance at the Society's 1991 Symposium for the Valuation Actuary broke all previous records for any symposium on any topic. A case study workshop held the

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Review cont'd

following day with members of the Actuarial Standards Board attracted 130 actuaries.

A special seminar is planned on "Life Insurance Company Solvency: the Myth and the Reality" for the first quarter of 1992. It will examine real and perceived problems and possible solutions of solvency issues.

The Program Committee planned several sessions at the October annual meeting that addressed solvency concerns.

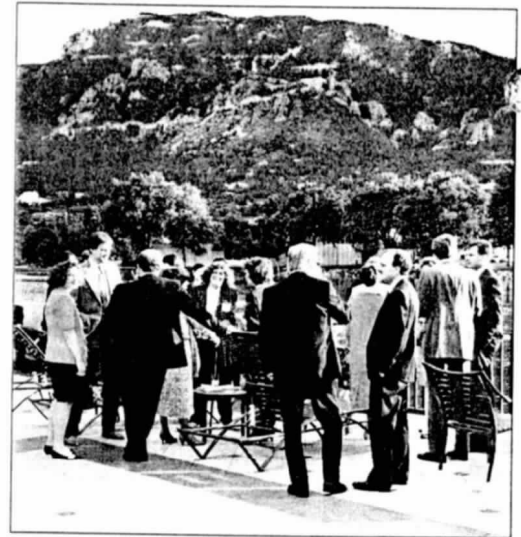
Society of Actuaries members made up about 75% of an industry advisory committee working with an NAIC group that is developing a risk based capital formula and a framework for regulatory action. Many on the advisory committee have had experience developing risk based capital formulas to manage surplus in their own companies and are strongly committed to this approach. The members are following the method of dividing risk based capital into C-1, C-2, C-3, and C-4 risks developed by the Society's Committee on Valuation and Related Areas (COVARA). The advisory committee presented its recommendations to the NAIC working group that will release its report to the industry in December.

A paper focusing on C-1 risks won the Investment Section's "Charles Ellis Prize" this year. "The Risk of Asset Default, Report of the Society of Actuaries C-1 Risk Task Force of the Committee on Valuation and Related Areas," was chosen as the best qualifying paper on investments. It provides an important reference for historical experience in bond defaults and default losses. It appeared in Volume 41 of *Transactions*.

The quality of assets has been a major factor in the solvency issue. Recognizing the trend for actuaries to become more involved in investment-related activities, the Society, through its research, education, and continuing education committees, has responded with increased activity in this area.

In the 1990-91 program year, several Society of Actuaries research projects in various states of completion focused on investments. Two important studies to be completed in six to twelve months are:

- Credit risk study — This is the first concerted effort of actuaries and investment professionals working



Spring meetings in jazzy New Orleans, scenic Colorado, and financial giant New York brought almost 2,500 members together for discussions of current life, health, and pension issues.



together to study private placement bonds and commercial mortgages, which jointly represent about 45% of the insurance industry's assets. An exposure base of about \$111 billion in commercial mortgages (representing about 20,000 mortgages) and \$66 billion in private placement bonds (representing about 12,000 placements) has been established. The results of the study could have significant implications for potential reserve requirements and industry norms.

- Experience study on high yield bonds — This study will analyze the bond investment experience of a

group of insurance companies with significant holdings of high yield bonds. It will show the relationship between the portion of high yield bonds and the overall investment performance of these companies. It will compare their investment returns to a sample of companies with little or no high yield bonds.

Other investment research projects in process focus on:

- bond pricing discrepancy
- options pricing models as alternatives to cash flow testing
- options and management of financial risk
- actuarial aspects of currency fluctuations

The need for more investment education for students on their way to Fellowship designations became a priority item for the Education and Examination Committee. A course content committee, with input from the Investment Section, revised Course 220 (Introduction to Asset Management and Corporate Finance) to enhance its coverage. The committee also developed the first investment elective exam, V-380 - Principles of Asset/Liability Management, which had 340 registrants in November 1991. E&E is developing four more courses, with one introduced each six months through November 1993. The newly formed Investment Track Task Force is determining whether an investment specialty track should be developed for the exam system, and what knowledge a person coming through the track would gain.

Another E&E action this year was to grant examination credit for Course 220 to those who have the Chartered Financial Analyst (CFA) designation. This action was as a result of one of the elements of the Future Education Methods (FEM) adopted in 1987, which grants credit for other organizations' exams where appropriate. CFAs must have three years of experience in investment-related work and pass three examinations.

Continuing Education stepped up activities to provide more investment expertise to members. The CE department planned several investment-related sessions at spring and annual meetings. In addition, a successful teaching seminar for actuaries and investment professionals this fall covered "Multivariate Immunization Theory." One of the five new Professional Actuarial Specialty Guides (PASG) developed this year was "Life Insurance Company Investments."

Responding to lack of public confidence

Policyholder confidence in the U.S. life insurance industry is at its lowest point in years. Part of the task of restoring that confidence includes analyzing how life insurance products are marketed and introducing improvements. Credibility of policy illustrations has resurfaced as a topic of discussion for many groups, including the trade press.

The Task Force for Research on Life Insurance Sales Illustrations, formed this year under the new Committee for Research on Social Concerns, became part of an exciting initiative in actuarial research. This research looks at programs managed by actuaries from the consumer's point of view and suggests improvements to help restore the public's faith in those products.

The task force exposed its preliminary report at the Society of Actuaries and Canadian Institute of Actuaries meetings this fall, where it generated much interest and discussion. The report analyzed current life insurance sales illustration practices and suggested alternatives to the current practices to remedy some of the problems. Suggestions included strategic and educational efforts to help consumers and agents understand the appropriate use of illustrations. The task force will issue a final white paper in spring 1992.

The findings of this task force could prove valuable in broadening the scope of future research and for organizations that have responsibilities for setting standards and regulations.

Emerging issues in health care

Another major public policy issue involving actuaries is the source of financing health care.

The Society's spring meeting in Colorado Springs, which focused on health and pension topics, had the largest attendance of the three spring meetings. More than 1,000 attendees heard former Colorado Governor Richard Lamm calling for prioritized health care spending and medical rationing.

The authors of two winning papers in a Health Section competition presented their papers at this meeting. "The Natural Limitations of Health Care Trend" presented techniques to forecast future health care costs of employee benefits plans consistent with national predictions and the plan's history. "Modeling Flexible Benefits Selections" addressed one analytical approach to adverse selection.

Small group insurance has been hard hit by spiraling health care costs, and employers in small firms struggle to afford this important employee benefit. The Society's research report completed this year, "Variation by

Duration in Small Group Medical Insurance Claims," measured the difference in medical insurance claim costs by duration from issue for small groups coverage of 25 or less employees.

Another health-related research project ventured into a new area of research for the actuarial community. The "Actuarial Aspects of Continuing Care Retirement Communities" research produced a literature review and a PC-based model. The model documentation and diskette provide basic education on the demographic and financial aspects of CCRCs and are a base for further research. An October 1991 article in *The Actuary* details the CCRC project.

Several Society members served this year on the Expert Panel on the Future of Income Security and Health Care Financing reporting to the Advisory Council on Social Security. The panel's report focuses on the year 2020 and the issues policymakers may face if no real changes are made in the retirement income security policies and health care financing system.

Advancing the profession through cooperation

A Working Agreement was signed in 1990 by the six organizations representing actuaries in North America: the American Academy of Actuaries, the American Society of Pension Actuaries, the Canadian Institute of Actuaries, the Casualty Actuarial Society, the Conference of Consulting Actuaries (formerly the Conference of Actuaries in Public Practice), and the Society of Actuaries. The Working Agreement outlines ways the six groups can increase cooperation to improve working relations and reduce duplication of effort.

In the spirit of that agreement, several cooperative projects were undertaken. In 1991, the *Actuarial Phonebook* listed phone numbers and faxes for actuaries in all six organizations. For 1992, the *Phonebook* will be replaced by the *Directory of Actuaries*, which will contain a membership list and business connections of all actuaries in the six organizations. In addition, slimmer SOA and AAA Yearbooks will only contain information specific to their organizations and will no longer include individual membership lists.

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Review cont'd

Harold Ingraham (L), Chairperson of the Committee on International Relations, shows committee member Paul McCrossan the ceramic plate that the People's Insurance Company of China (PICC), Shanghai, gave to the Society of Actuaries. The PICC is one of the sponsors of Nankai University's actuarial science program. Ingraham delivered the commencement address for its first 15 graduates in June. The Society has supported this program since 1988, with several members serving as faculty. Many members also are involved in international summer school programs in Poland and Switzerland.

Another new publication recently approved represents a joint venture between the Society of Actuaries and the Casualty Actuarial Society. The two groups will form an editorial board that will develop a student newsletter for the 10,000 students now taking the jointly administered SOA/CAS examinations. The Society's Communications staff will produce the newsletter that will communicate general information about the profession and the actuarial education process. Students who are past the first five joint exams but not yet Associates will begin receiving a copy of *The Actuary* or the CAS newsletter, *The Actuarial Review*. Because job information is of high interest to students, this new student newsletter will carry classified advertisements for actuarial positions.

This year, the Continuing Education Committee developed a "clearinghouse" for all applicable actuarial education events and regularly distributes this list to the other organizations representing actuaries. The purpose is to help each organization in its planning to avoid overlapping dates for major educational events.

The profession cooperated in its third year of "Forecast 2000." This public relations effort, through Edelman Public Relations Worldwide, focused on increasing the public's awareness of the actuarial profession

and its contributions to society. The 1991 Forecast 2000 campaign met objectives in generating national, regional, and local media coverage and in increasing requests for information from policymakers and academics. Its scope during 1992 will be to target legislators, opinion leaders, and regulators with insurance company solvency and other major professional issues.

The Casualty Actuarial Society and the Society of Actuaries jointly have administered a scholarship program for minorities since 1977, with CAS representatives serving as liaisons on the Society's Minority Recruiting Committee. This year it became a joint CAS/SOA committee.

For the first time, the Society jointly sponsored a seminar with the American Bar Association. A four-hour teleconference with more than 300 attending at 65 sites, the seminar involved attorneys, pension actuaries, and Treasury Department and Internal Revenue officials discussing new 401(a)(4) nondiscrimination regulations and other pension topics.

Encouraging professionalism

The formation of the Actuarial Board for Counseling and Discipline (ABCD) this year is an example of how the

organizations in the actuarial profession can work together to maintain professional standards while retaining their individual identities. The ABCD is a new independent body that will investigate complaints raised against any actuary who is a member of an organization that delegates that authority to the ABCD. If appropriate, it will recommend disciplinary action. It is up to the organization to which the member belongs to implement such action. The ABCD also will provide, in a nondisciplinary atmosphere, counseling for actuaries on questions of ethical or practical matters. The March 1991 *Actuary* contained an article that outlines ABCD's responsibilities and benefits.

The Board endorsed the ABCD and is preparing a constitutional amendment to present to the membership to allow the Society of Actuaries to delegate investigatory and counseling functions to the ABCD.

At the same time, the Board adopted a model Code of Professional Conduct, developed by a joint committee of the six organizations. This revised code, included in this mailing as an insert, is effective January 1, 1992. It will be printed in the 1992 *Yearbook*, replacing the Society's current Guides to Professional Conduct.

This year, the Society's attorney, together with outside counsel, completed an antitrust compliance review. They advised that the Society continues to have a good compliance program, with staff well sensitized to antitrust and other legal issues. A January 1992 article in *The Actuary* will contain guidelines to help members stay aware of antitrust laws.

The Society's Committee on Actuarial Principles has been developing a document that defines the principles that underlie the practice of actuarial science. These principles are broad and well established and not likely to change unless actuaries' understanding of basic phenomena change. In June 1991 the Actuarial Principles document was exposed to members of the Society and the other organizations representing actuaries. The Board adopted the final draft as a Statement of Principles of the Society of Actuaries at its October meeting. It will be available on request from the Society office and will be published in either the *Transactions* or the *Transactions Reports*.

Supporting the academic community

The 1990-91 program year was the first year of the Education and Research Section. It now has about 550 members. It has assumed the responsibility of overseeing the review board of ARCH (Actuarial Research Clearing House) and will be active in planning the Actuarial Research Conference.

The Career Encouragement and Academic Relations Committee awarded six grants to universities where full-time faculty members attained ASA or FSA status. The Ph.D. Grants Subcommittee of the Research Policy Committee also awarded grants to two Ph.D. candidates whose thesis topics relate to actuarial science. In addition, an increasing number of academic members took advantage of opportunities to attend and serve as instructors at Society meetings and to participate in committee activities.

The Society's education department expanded mailings this year to ensure that universities receive all the publications they need to develop

courses and keep their students informed. For the first time, the Society of Actuaries had a booth and distributed materials at the Mathematics Association of America's annual meeting.

Strengthening the E&E structure

With the rapid rate of student growth, a more complex syllabus, and new courses being developed, the demand for volunteers in the E&E system is increasing significantly. In 1991, more than 500 members served the E&E system as question writers and graders, Study Note authors, and officers. This year, the Board retained a consultant to perform a review of the current E&E structure and procedures to determine whether any changes are appropriate.

The Intensive Seminar program to hone the statistical skills of exam candidates began in 1989 with 83 candidates. It grew to 273 candidates in 1991. This one-week program is held on a university campus and taught by academic and business faculty. Another Intensive Seminar on risk theory also is being developed.

Since the Flexible Education System (FES) was implemented for the Associateship exams in 1987, the E&E Committee has been studying its effect on students' travel time. The study's conclusions were sent to the members in a February 1991 *Actuary Special Report*. The major finding is that the average time taken to reach the ASA level increased slightly, from a median of 4.06 years to 4.26 years. The increase is partially because candidates, on average, are attempting about 30% fewer credits under FES than previously, and partially because some less successful candidates are returning to the system. The study also showed that candidates who choose to take more credits are progressing readily through the system.

Responding to the membership

Two issues were addressed this year that had concerned the Board for some time. The first was the status of members who have remained Associates for 10 years or more. Despite the fact that these members pay the same dues as Fellows, they are not allowed to vote in elections.



These happy Fellows celebrate at the September Fellowship Admission Course banquet and graduation ceremonies. A total of 296 FSA candidates attended March or September FACs this year as the final step in getting their FSA designation.

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Review cont'd

A survey completed this year among long-term Associates showed that many believe they are "treated like second-class citizens" and that they were not properly recognized when they received their ASA designations. In response to the latter concern, the Society issued Associate-ship certificates to all ASAs. The Board also voted to recommend a constitutional amendment that would permit Associates of 10 years or more the right to vote in Society elections. The October 1991 *Actuary* contained an article on this issue, and it will be discussed again before the amendment comes to a vote.

The second issue concerned papers submitted to the *Transactions of the Society of Actuaries*. In January the Board formed a Task Force on Papers to review the papers approval process, to ensure that standards used to evaluate papers were consistent between types of papers, and to look for ways to improve communications with authors. In reviewing the process, the task force surveyed authors who submitted papers during the past two years to comment on their experiences.

In October the Board approved implementing the task force's recommendations. Some of those include establishing criteria for "acceptance," "conditional acceptance," "conditional rejection," and "rejection"; reducing time delays in the review process by increasing staff involvement in tracking the review progress of submitted papers; incorporating associate editors with different specialties into the Papers Committee structure; and soliciting papers on important topics of current interest.

Another way the Society serves the specific needs of the members is with special interest Sections. Interest in these "grass roots" groups continues to be strong, with about 71% of the members belonging to at least one Section.

The Pension Section, with 3,742 members, is the largest special interest Section. In the past year, it maintained an active program of disseminating information. It published four issues

of *Pension Section News*, updates of *Economic Statistics for Pension Actuaries*, and a 55-page *Pension Forum* that includes an article by the Committee on Pension Research.

At its October 1991 meeting, the Board approved the petitions of the organizing committees of two new Sections: International and Computer Science. If Society members show enough interest, these two Sections will be added to the nine existing Sections.

The Board continued "Meet the Board" sessions begun during 1989-90 at all the 1990-91 meetings. These informal sessions are a good way for members to get to know the Board members as individuals and to give valuable feedback on current or proposed activities.

Planning for the future

The addition of a resource development program this year represents another initiative to advance the future of the profession. A director of development, Larry Henze, came to the Society this summer after several years of experience in fundraising for universities. By securing funds from related businesses, foundations, government agencies, and the membership itself, the development department will provide needed resources to ensure that priority research and education activities are completed. A committee is being formed to help establish funding priorities and to identify and help contact prospects.

Strategic planning, important for any organization, is especially valuable for a volunteer organization. The term of office for Board members and many committee chairpersons is three years, which means about one-third of the Board and committee chairs are new each year. In addition, most work full-time and have limited time to work on Society matters.

These factors led the Planning Committee to develop a well-structured planning process and a strategic plan that will give the Society leadership continuity of focus. The foundation of the strategic plan was the mission statement that defines

the Society's reason for being a professional organization:

The Society of Actuaries is an educational, research, and professional membership organization whose purposes are to promote high standards of competency and to advance the state of actuarial science. The Society of Actuaries, whose members operate primarily in the areas of life insurance, health and retirement systems, and investments in the United States and Canada, is part of the worldwide actuarial profession.

The six general objectives define how the Society will address its mission:

- (1) Education – to provide basic and continuing education in theoretical and applied aspects of actuarial science.
- (2) Research – to facilitate the conduct of theoretical and practical research in actuarial science.
- (3) Professionalism – to promote and enforce a high standard of professional conduct by its members.
- (4) Membership – to attract and qualify persons for membership.
- (5) Organization – to provide effective organizational support to its members and coordinate with other organizations to accomplish the profession's mission.
- (6) Public involvement – to encourage actuaries to contribute to the resolution of social and business issues.

The strategic directions based on the mission statement and general objectives were outlined in a special report in the September 1991 *Actuary*.

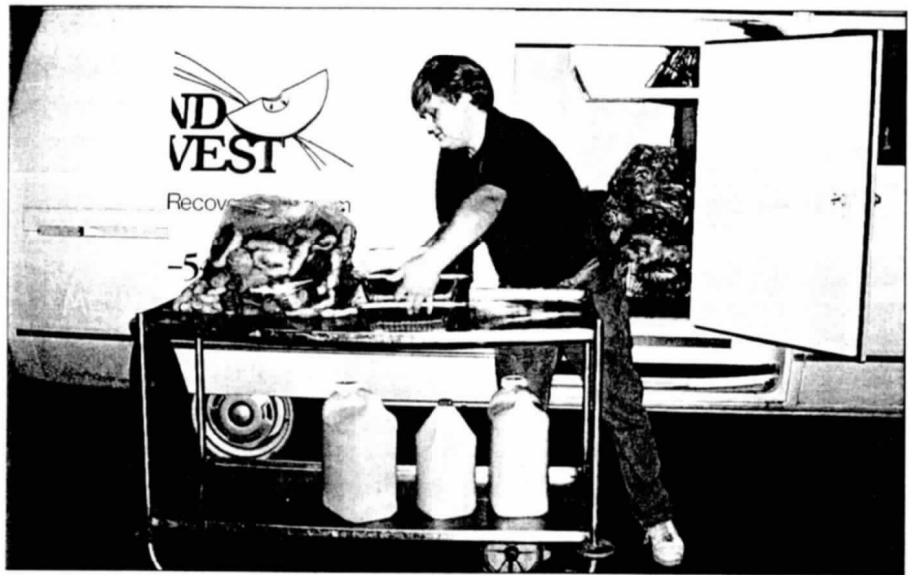
Each year the Planning Committee will review the strategic directions and suggest changes. Next, the operating plan will be developed by the Executive Committee, working with officers, chairpersons, and staff. The operating plan details objectives and programs and ties into the annual budgeting process. The staff plays an important role in providing continuity as volunteer leaders come and go.

Did you know that during the past year...?

- More than 60,000 exams were administered, an all-time record. The exams were given in more than 250 locations worldwide, another record for the Society.
- Section elections were computerized for the first time, with Section members using scannable ballots. About 19,000 ballots were sent to 8,700 Society members who belong to an average of 2.3 Sections each.
- The library's holdings increased to 3,500 volumes, which include 206 serials. From October 1990 through September 1991, the library staff circulated 466 volumes to individuals and other libraries, conducted 73 literature and reference searches, and fielded 2,284 reference requests.
- Almost 56% of members on the computer system requested changes to their files, requiring more than 9,000 entries by Information Services staff.
- VISA and MasterCard were used for the first time to register for an annual meeting. Many attendees took advantage of this convenience.
- New records were set. Membership is at an all-time high – 13,366, a 30% increase from just five years ago. Students in our exam system number 23,500, compared to 15,100 in 1986. The Society staff grew to 71, and the budget for 1991-92 is \$13.1 million.



Most members know Bern Bartels, Registrar, as the official bell ringer at meetings. Bern recently marked his 20th anniversary with the Society and attended his 79th meeting in Toronto.



The Society arranges for leftover food to be donated from meetings. Gordon Johnston, who works with Second Harvest food pantry in Toronto, loads leftovers from the annual meeting to deliver to the needy throughout the city. A total of 70 lbs. of bread and 150 lbs. of prepared food were donated in Toronto.

- Several programs and publications were recognized. The Continuing Education Department received two Awards of Excellence from the American Society of Association Executives (ASAE). The department received a certificate for its teleconference on 401(a)(4) Proposed Regulations and a certificate for its 1990 Symposium for the Valuation Actuary. The Society's Education Department won the 1991 Award of Excellence from the ASAE for the Fellowship Admission Course in the Education category of Educational Curriculum/Coordinated Series of Seminars. Other prize winners included the 1989 *Centennial Celebration Proceedings*, which received an Award of Excellence certificate from APEX '91 Awards for Publication Excellence competition, and *The Actuary*, which received second place in the Illinois Woman's Press Association Communications Contest in the category of nonprofit newsletters.
- The staff increased recycling efforts by recycling cans and office paper. Soybean ink and recycled paper were used in publications whenever possible.
- In December 1990, staff donated 701 lbs. of food to the Bethlehem Food Depository, which serves the hungry in northern Illinois. Staff also donated 73 gifts to the Marillac

House, which provides food, clothing, and medical and legal services to needy residents of a Chicago neighborhood. A summer food drive yielded 25 grocery bags of food for the Schaumburg Township Pantry.

- The policy of waiving fees for members who temporarily leave the work force to raise children was modified to extend beyond the previous five-year limit. After five years, the waiver may be granted on a yearly basis, provided there is a child five years old or younger in the home and there is no earned income.



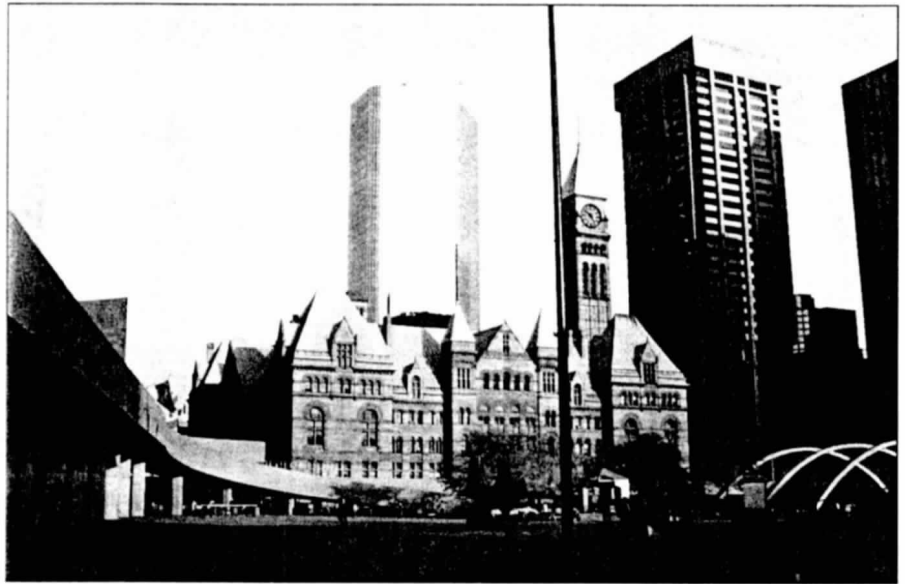
Carol Pandak staffs the annual meeting booth for the new Directory of Actuaries, which will include 9,000 fax numbers, almost triple what the SOA Yearbook printed in 1991.

Annual meeting explores new career options

Photos by Judy Bluder

This year's annual meeting in Toronto, October 20-23, allowed 1,290 actuaries to explore career options and current actuarial issues in 100 sessions supporting the meeting theme, "Our Horizons Broaden."

Throughout the meeting, participants were able to meet and talk at the daily continental breakfasts, the Monday evening reception, and the Tuesday morning "Meet the Board" session. The Society kept members' companions busy during the meeting with tours to Niagara Falls, restored theaters and homes, and a general tour through the city.



◀ SOA Executive Director John O'Connor congratulates Daphne Bartlett for receiving a crystal gavel from the Board in appreciation of her hard work and dedication over the past year.

▶ Keynote speaker Rupert Pennant-Rea, editor-in-chief of *The Economist*, tells meeting participants at the Monday general session of the changing economic world and new areas where actuarial expertise can be useful.



◀ David Holland (left), SOA Vice-President in charge of publications, congratulates Edward Frees (right) for receiving this year's Annual Prize for his paper on "Stochastic Life Contingencies with Solvency Considerations," published in the *Transactions*.

▶ Incoming President Donald Sondergeld presents President Daphne Bartlett a print of the presidential portrait.



◀ Daphne Bartlett offers Elias Shiu her congratulations for winning the 1991 Halmstad Prize for a paper he authored with Hal Pedersen and A.E. Thorlacius on "Arbitrage-Free Pricing of Interest-Rate Contingent Claims" published in Volume 41 of the *Transactions*.





◀ Donald Sondergeld and Daphne Bartlett (center) exchange ideas with two special guests at the annual meeting – Alistair Neill (left), President of the Faculty of Actuaries in Scotland and Hugh Scurfield (right), President of the Institute of Actuaries in the U.K.

(L-R) Fran Lemery, Jim Thompson, and Jerry Enoch strike up a conversation at the reception after the "Leading with Confidence" session, where committee chairs, staff, and Board members discussed the year ahead and committee activities with relation to the newly developed strategic plan.



▲ Walter Rugland thanks Society members at the Monday general session for their support in electing him as the 1991-92 President-Elect.



▲ Board members get valuable feedback on Society programs at "Meet the Board" sessions.



◀ The band plays non-stop at the Monday evening reception, where meeting participants sample hors d'oeuvres and relax after the first day of sessions.



SOCIETY OF ACTUARIES

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