



The
Actuary

SOCIETY OF ACTUARIES 1998-99 YEAR IN REVIEW

The Actuary

The Newsletter of the
Society of Actuaries

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for this issue

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Membership Statistics

Nov. 1, 1999

Membership, Nov. 1, 1998

Fellows	8,401
Associates	7,808
Total	16,209

Increase through:

Examination	265
Election *	17
Reinstatement.....	16

Decrease through:

Death	47
Withdrawal	253

Membership, Nov. 1, 1999

Fellows	8,545
Associates	7,662
Total	16,207

**Fellows of the Institute of Actuaries (England), 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.*

January SOA board meeting open to all members

Interested Society members are welcome to attend the SOA Board of Governors meeting Jan. 11, 2000, at Georgia State University, Atlanta. Minutes of board meetings are available by request and on the SOA Web site (www.soa.org, *General Libraries*). For more information, call the SOA office, 847/706-3500.

1998-1999 Board of Governors

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William F. Bluhm

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PRESIDENTIAL ADDRESS

To sustain a vital and vibrant actuarial profession

by Howard J. Bolnick
 Address at the Annual Meeting
 Oct. 19, 1999
 San Francisco, Calif.

A year ago I began my presidency with the following commitment: “Nothing we do is more important than to build on our historical success as a vital, well-regarded profession. My commitment is to do what’s necessary to extend our historical success into the next century.”

During this past year, with your board’s strong support, I’ve tried to fulfill this commitment. I’ve also learned a lot about who we are and why future SOA Boards need to continue working hard towards this commitment.

“Actuary” is a profession born in the 19th-century industrial revolution. We were, and are today, vital to the success of the insurance industry.

We’re now on the cusp of the 21st century. Our greatest challenge is to be as relevant in this new century as in the past. However, the past is over. We need to reassess the environment in which we practice and how the actuarial profession can maintain its relevance.

I hope you followed the lively “Big Tent” discussion over the last year about how to best reach our vision for actuaries to be recognized as the leading professionals in the modeling and management of financial risk and contingent events. This is the right vision for the actuarial profession.

Big Tent focuses on a strategy and broad tactics to move us into the 21st century. Our being a “profession” is vitally important, and it’s professionalism that I want to emphasize, because



SOA President Howard Bolnick applauds members at the 50th Anniversary Annual Meeting.

it’s professionalism that will lead us in the future.

Today, I’d like to look back to more clearly see our future. As the 21st century fast approaches, it is clear that our future is a future that’s tied to the rapidly evolving world of financial services. Actuaries and our professionalism offer a vital contribution to this financial arena. But whether we become a major part of this new world has yet to be decided.

Our professionalism is the key. It has engendered a high level of trust that has made the insurance industry possible — not just helped it or strengthened it, but actually made it possible for the industry to exist.

The same fundamental historical problem that was solved for the insurance industry to thrive exists today across all financial services companies. That problem is the need to balance adequate, yet not excessive, prices and adequate, yet not excessive, capitalization to gain public trust.

Let’s look at the life insurance industry, where we actuaries have our

historical roots. Our success there shows how we can succeed in the global financial services arena. However, before we can address future opportunities, we need to understand why actuaries have been so vital to the 19th- and 20th-century insurance industry.

Actuaries’ intellectual roots are based in probability theory developed from the mid-1600s to mid-1700s by great mathematicians: Pascal, de Fermat, Jakob and Daniel Bernoulli, de Moivre, and Bayes. These great minds developed virtually all the probability and statistical tools used today by actuaries, financial engineers, and other math-based occupations.

Actuarial science began soon after these formative mathematical discoveries. “Actuary” developed as a recognized occupation because of the unique service provided by applying probability and statistics to pricing, dividend, and solvency problems of the early life insurance industry in England.

With the formation of the Institute of Actuaries in 1848, actuaries became the leading industrial profession in England — a “learned profession” with implied standards of integrity and dignity. By the end of the 1800s, actuaries and actuarial organizations were found in Western Europe, the United States, Canada, Australia, and Japan. Today, actuarial organizations are found in more than 50 countries.

Our role is widely recognized as key to the success of insurance companies and employee benefit plans. Growing acceptance of the role of “valuation actuary” represents the highest degree of professionalism and public trust in us to balance the competing needs of solvency and competitive pricing. Our

growth in numbers and breadth of responsibility occurred not by chance, but for very good reasons.

Insurance is unusual. Simply stated, insurance is an exchange of money now for money payable in the future contingent on the occurrence of certain events. Perhaps we're too close to this transaction to fully appreciate its unusual features.

Would you, as parents of a newborn child, pay me \$5,000, and trust me if I give you a verbal promise to pay four years' tuition if your child is admitted to Harvard? Of course not! Why, then, would you trust a similar promise from an insurance company? It's this element of trust between insurers and their customers that must be painfully developed and carefully maintained for the insurance industry to exist.

It's difficult to build the high level of trust needed between consumers and the organizations that wish to do business with them when the contingent promise comes due at an unspecified time, sometimes in an unspecified amount, and is made by a company that you don't really know, that's managed and owned by unknown people, and has uncertain financial backing.

You must be careful. Their promises might not be delivered!

Insurance is an unusual business. It has been studied extensively by some of the 20th century's leading economists. Here's the view of two: Joseph Stiglitz and Michael Rothschild. "Economists generally prescribe competition as a solution for markets that do not work well Insurance markets differ from most other markets because in insurance markets, competition can destroy the market rather than make it work better."

Yes, actually destroy a market! Rothschild and Stiglitz are describing the natural tendency of competitive insurance markets to experience what economists call "market failure" — that is, the inability of insurance markets to assume all the risk that those at risk would like to shift. Economic scholars describe three causes of market failure that affect the ability of an insurance company and its customers to bargain for an optimal insurance contract.

First, market failure can stem from difficulties of long-term contracting under uncertainty. Insurers must make provisions to maintain adequate reserves and capital to fulfill their contingent promises. This could be done by charging excessive premiums or raising

excessive capital. These solutions are not palatable to either customers or owners. For insurance to flourish, adequate, yet not excessive, premiums must be charged, and adequate, not excessive, capital must be infused. Prices and capital must be balanced. How can this be accomplished, particularly when factors affecting premiums and capital needs are not well known in advance?

Second, market failure also occurs because of asymmetry of information about insurance company operations. Due to uncertainty, striking a bargain between customers and insurers would be difficult even if both parties had adequate information about the nature of the insurance business. However, customers don't have the extensive information that management has. How can customers, with their lack of information, trust insurers enough to enter into an insurance contract?

Third, market failure is virtually inevitable if adverse selection takes hold. So insurers usually create upfront lock-in barriers to keep healthy customers from leaving. Customers must trust insurers enough to agree to become locked in. How can this happen?

In addition to these three issues in striking a bargain between customers and insurers, insurance markets have their own unsettling problem. Insurance market failure can occur because insurance markets are naturally unstable. Companies don't have knowledge of customers' risk characteristics, while customers do. This is characteristic of markets with asymmetric information — markets that we actuaries know as having the potential for adverse selection.

Economists demonstrate that markets with asymmetric information may fail to form, or they may have problems that undermine their continued existence. So, insurance has inherent problems. Yet, somehow, these problems have been overcome. Stable and profitable insurance markets exist.

(continued on page 6)



The annual meeting in February 1999 of one of Mexico's major actuarial organizations, CONAC, drew representatives from several organizations. Among the attendees were (L to R) Dr. Enrique de Alba, professor, Autonomous Technological Institute of Mexico; Peter Morris, president, Canadian Institute of Actuaries; Alice Gannon, president-elect, Casualty Actuarial Society; Howard Bolnick, SOA president; Rafael Pose Fregoso, director general/president, CONAC; and Ignacio Gurza Vecon, secretary of the exterior, CONAC.

Presidential address (continued from page 5)



The Society welcomed 230 new Fellows into its ranks in 1999. This year's graduates of the Fellowship Admissions Course included Tim Tracy, shown receiving his Fellowship certificate from Howard Bolnick. Robin Tracy looks on as son Nathan makes an early play for an actuarial career.

Insurance companies flourish. The insurance industry has grown because it has effectively compensated for the natural tendency for market failure.

Historically, three mechanisms have allowed insurers to develop the high level of trust needed for the industry to thrive.

The first successful mechanism was mutual companies. While mutuals are waning in importance today, historically they were vital to the insurance industry's growth. Since owners and customers of mutuals are one and the same, potential conflict is eliminated. The importance of mutual insurers is attested to by the fact that all of the successful early life insurers were mutuals — and all of the early stock insurers were unsuccessful.

The second mechanism is state regulation. Regulation allowed insurers to grow by placing a trusted, independent third party in the role of overseeing potential customer-owner conflict. Historically, the introduction of insurance regulation in the 1860s created an environment in which both mutual and stock life insurers flourished.

The third mechanism to protect against market failure is insurance company risk management tools. These tools control the potential consequences of adverse selection and moral hazard. They include risk selection, risk rating, claims adjudication, managed care, policy limitations and exclusions, and deductibles and copayments. The growth of insurance could not have taken place without them. Without mutual insurers, insurance regulation, and effective risk management tools, the insurance industry would have suffered severe market failure.

By examining the history of insurance and actuaries, it's easy to demonstrate that actuaries were essential to developing all three of these mechanisms. Early mutual insurers depended on actuarial advice and often were run by actuaries. Insurance regulation arose from the crusading work of actuaries. And, effective risk management tools were usually developed by actuaries.

Actuarial expertise was the common element that made mutual insurers, insurance regulation, and risk management tools effective to overcome market failure.

Why actuaries?

Actuaries have the math and business skills to solve real-world problems caused by the natural tendency for insurance market failure. But perhaps most importantly, actuaries are trained to balance the interests of customers and owners when applying these skills. Balancing pricing and solvency requirements — while attending to the diverse, and often

conflicting interests of owners, managers, and customers — demonstrates the professional judgment and ethic that are so basic to our success.

Our profession's success, in turn, leads to the much more visible success of insurance companies, regulators, and markets. Actuaries and our professionalism provide the element of trust so essential to a flourishing insurance industry. Here, we come to the point I made earlier: The fundamental problem addressed for the insurance industry exists across all financial services companies. That is the need to balance adequate, yet not excessive, charges and adequate, not excessive, capital to gain the trust of customers, industry, legislators, regulators, and the public.

Central to solving this problem for the broad financial services industry is the professionalism that allowed actuaries to solve it for the insurance industry. Our professionalism — our technical skills, our business acumen, and our ethics and integrity — made it possible to solve this complex problem. It's not so clear what constitutes a profession today. And, the idea of a profession and professional status is under attack as an historical relic.

A definition of professionalism I



The SOA president and his family pose in front of a 1940's car at the Members' Reception during the 50th Anniversary Annual Meeting. Pictured are (L to R) Lori, Lee, Kay, and Howard Bolnick.

find useful is from analyst William M. Sullivan: "Professionalism signified the formal recognition of mutual trust between the professional group and the larger public It was this trust in the collective standards of the profession that led society to devolve authority onto professional associations... ." Today, actuaries are clearly professionals in their work for traditional employers — insurance companies and employee benefit plans. Actuaries have a specialized scientific knowledge and a strong social responsibility. And, by virtue of our professionalism, we have gained authority and autonomy for our professional organizations and enjoy economic success.

The vision of the Society of Actuaries is for actuaries to be recognized as the leading professionals in the modeling and management of financial risk and contingent events. This is the right vision. It takes us well beyond our 19th-century roots in life insurance and beyond our current employment in insurance and employee benefit plans. However, reaching our vision is not without problems — and opportunities.

We must recognize two important extensions of actuarial work over the past decade: the successful introduction of actuarial techniques to risk pricing and risk management in non-insurance financial institutions, and the growth of new occupations within these institutions filled by high-quality practitioners with strong financial modeling and business skills. Their financial modeling skills are not fundamentally different from ours. Their math training actually complements today's actuarial training. In effect, we're all actuaries.

While actuarial jobs exist today throughout financial services, outside of the insurance industry they aren't recognized as such. To recognize the nature of their skills and work, I call these practitioners "new actuaries." New actuaries practicing in non-insurance financial services companies



An SOA delegation visited China and Southeast Asia as part of ongoing efforts to assist in the profession's development there. Shown with actuarial students in Kuala Lumpur is SOA President Howard Bolnick (second row, third from left), SOA Hong Kong office coordinator Patrick Cichy (top row, left), and SOA Southeast Asia Committee Chair Hassan Kamil (top row, third from left).

do not yet have a strong sense of professionalism, nor do they have organizations trusted and relied upon by regulators and the public. Absent these attributes, new actuaries will not become equipped to handle the fundamental problem of building trust in their balancing of pricing and capital adequacy.

Without professionalism, it will be extremely difficult, and perhaps impossible, for "new actuaries" to become trusted to solve this fundamental problem. Meanwhile, our traditional areas — insurance and employee benefit plans — are declining in importance.

The current actuarial profession has several increasingly worrisome problems: small numbers, narrow scope, tenuous relationships with universities, and, of course, competition from "new actuaries." For these reasons, I devoted much of my presidential year to what I refer to as the Big Tent strategy and tactics. I've encouraged Society members to think of our profession in a new way, one that is consistent with our vision.

In a Big Tent profession, actuaries would be fundamentally important

throughout the financial services industry. Actuaries would become more dynamic, and our membership would grow substantially. The SOA Board's Big Tent strategy is to pursue our vision by three main high-level tactics.

- The first is to embark on redefining and broadening our actuarial education and qualification system to be equally attractive and effective for both current actuaries and "new actuaries."
- The second is to expand into non-insurance financial institutions by bringing a small number of high-quality, high-visibility "new actuaries" into the actuarial profession. This tactic will probably result in formation of a new actuarial organization for financial actuaries.
- While a new actuarial organization for financial actuaries makes sense, we may need to redesign the North American profession to accommodate it. This is our third tactic.

While too few members are aware of the Big Tent concept, those that are aware recognize the need for change

(continued on page 8)

Presidential address (continued from page 7)

and express solid support for our Big Tent strategies. There is little support for our continuing "business as usual." It's clear to them that change is necessary if our profession is to remain vital and vibrant. The Big Tent approach is the right strategy to assure our success. It is time for action.

However, some thoughtful Society members have questions about our high-level tactics, primarily about how best to bring "new actuaries" into the profession. Developing and executing specific tactics are challenges I leave my successors.

On the occasion of the Society of Actuaries' 50th anniversary, we must look to the future even as we celebrate the past. With the next millennium on the horizon, will we find effective ways to reach our vision for the actuarial profession? "Profession" is a powerful and valuable idea.

Today's "new actuaries" and their employers should see the value of professionalism in creating the trust they need to succeed. Professionalism has made actuaries what we are. Professionalism is what we actuaries offer to the rapidly evolving world of financial services.

Creating a legacy

I have been honored to serve as the Society's 50th president. I want to offer my congratulations and thanks to my predecessor presidents, fellow SOA Board members, Society of Actuaries officers, and SOA staff who have all served us so well, the thousands of volunteers who have made the Society of Actuaries such a successful professional association, and, of course, our members, who have brought us to this golden anniversary.

I come to the end of my magical year as president. I hope that I've accomplished something meaningful. I've begun some important work, but it isn't finished. For us to reach our vision, for the actuarial profession to sustain itself as a vibrant and vital re-

source devoted to risk management throughout the evolving global financial services industry will take care and effort from my successors.

I leave you in good hands. Your new president, Norm Crowder, and president-elect, Rob Brown, agree with me about the importance of the Big Tent strategy and tactics. With your continued support and that of the SOA Board, I expect that we will meet the challenge to evolve from our 19th-century roots into a vital and vibrant 21st-century profession.

I'd like to leave you with a thought from John Ruskin that, I believe, expresses why we must proceed much better than I can. "When we build, let it be such work as our descendents will thank us for: and

let us think, as we lay on stone, that the time will come when men will say as they look upon the labor and thye substance, 'See! This our fathers did for us.'"



SOA President Howard Bolnick passes the gavel to 1999-2000 President A. Norman Crowder, III, at the Oct. 20th closing general session during the 50th Anniversary Annual Meeting.

President's Awards

Seven individuals received President's Awards at the 50th Anniversary Annual Meeting.

Howard Bolnick recognized the following recipients for their contributions to the actuarial profession and their personal support during his career and term as president:

- Michael J. Corey, executive recruiter for the profession for more than 30 years and sponsor of an annual event that has raised nearly \$164,000 for The Actuarial Foundation
- Richard B. Sieben, an important mentor to Bolnick and his first boss at Continental Assurance Company

- Paul Thornton, president of the U.K. Institute of Actuaries, for his impact on international actuarial issues
- The four SOA managing directors for their outstanding contributions in managing the Society staff in the absence of an executive director for a significant portion of the year. Honored were Managing Directors Jeff Allen, practice area education and research; Linda Delgadillo, marketing and membership services; Marta Holmberg, core studies and global initiatives; and Kevin O'Brien, operations.

Learning, networking at spring meetings

Nearly 1,600 members and guests gathered for keynote speakers, educational sessions, and networking at the SOA's 1999 spring meetings.

Those attending the May 23-25 meeting heard Peabody Award-winning journalist Stuart Varney discuss "New Challenges of the Global Economy." The meeting, held in Atlanta, was dedicated to financial reporting, investment, and product development topics in the continuing education sessions.

The Seattle meeting featured keynote speaker Daniel Callahan. His address, "False Hopes," looked at the cost-benefit trade-offs of technological medical treatments. The June 16-18 meeting's focus was on health and pension topics.

Both meetings offered networking opportunities, including a members' reception and Section breakfasts.



Health issues expert Daniel Callahan addresses the Seattle spring meeting's opening session.



Candidates for SOA president-elect have the opportunity to speak at each spring meeting's general session. Here, Rob Brown addresses the Atlanta audience.

Continuing Education attendance '99

Spring meetings:

May 23-25	Atlanta	700
June 16-18	Seattle	898

Annual meeting:

Oct. 17-20		
San Francisco		2,282

Valuation Actuary Symposium:

Sept. 23-24		
Los Angeles		778

17 seminars (including 1 teleconference)		1,041
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SOA President Howard Bolnick listens to journalist Stuart Varney's response to an audience member's question at the Atlanta spring meeting.

The SOA's golden year

Celebrating its 50th anniversary meant a wide array of activities for the Society of Actuaries.

A book on the Society's history, *The First 50 Years: Society of Actuaries 1949-1999*, was developed to convey the remarkable accomplishments of the SOA and the people who helped shape its growth and worldwide influence. SOA members James Hickman, emeritus professor and dean, University of Wisconsin School of Business, and Richard Schreitmueller, former SOA board member, were lead reviewers and authors of special sections. Hickman also created a 50-year timeline, which shows actuarial developments juxtaposed with world events, that was inserted in the book and the October issue of the *North American Actuarial Journal*.

Selected actuarial papers that have stood the test of time comprised the *Society of Actuaries 50th Anniversary Monograph*. These papers appeared over the past 50 years in the Society's *Transactions*. Three other monographs presented works chosen by special interest Section councils as representing important actuarial thought in insurance financial reporting, product development, and finance and investment.

The SOA's refereed journal, the *North American Actuarial Journal*, published a special 50th anniversary issue featuring articles on the theme of professionalism and public responsibility. In addition, a series of four articles, "Actuaries in History," extended over each regular issue in 1999, highlighting actuaries' contributions to operations research, credibility theory, and computer science and actuaries' accountability to the public.

The Actuary, the SOA's member newsletter, marked the occasion with a look at the first issue, along with a story about the first editor, Andy

Webster, by 1996-99 Editor Bill Cutlip.

Throughout the year, members and others could view archival items representing the SOA's and the profession's history. A traveling display booth presented these items at the SOA spring meetings and annual meeting.

In honor of the 50th anniversary and the approaching new millennium, the SOA's Futurism Section surveyed its members on 25 questions about the future. Results were heralded in *The Wall Street Journal*, *Best's Review*, and other important news outlets.

A "Happy Birthday, SOA!" card contest offered the next generation of actuaries a chance to get involved. The contest was open to children and grandchildren of SOA members, awarded monthly prizes in three age categories from June through September, and honored a grand prize winner in each category.

Nearly 3,000 registrants and guests gathered to celebrate the SOA's golden year at the 50th Anniversary Annual Meeting in San Francisco, Oct. 17-20.

Presentations by four renowned public figures and a major entertainer were woven throughout the three-day event, which included about 140 continuing education sessions. A gala dinner and a special closing general session, complete with balloon drop, confetti, and a massive birthday cake, helped say "happy birthday" to the SOA in a spectacular way.

Elegant gifts from 25 actuarial organizations congratulated the Society on its 50th year, reminding all involved of the profession's growing globalization.

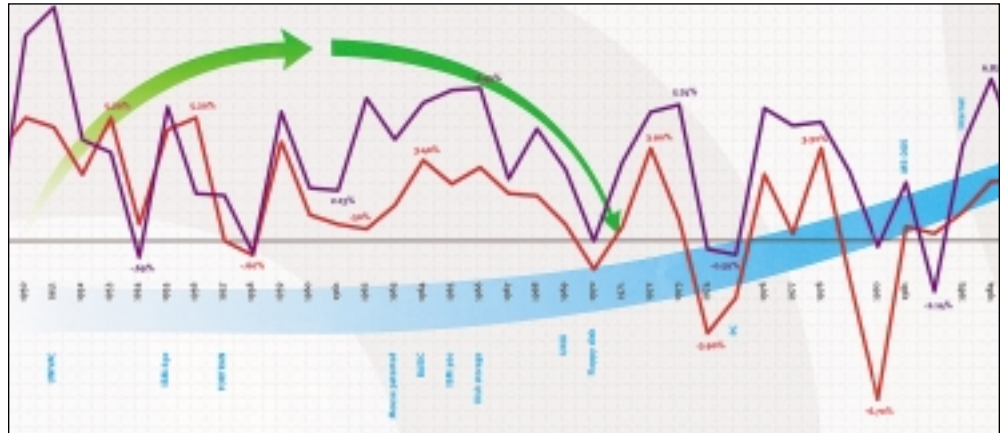
For the first time, a portion of the annual meeting's cost was underwritten by sponsors. Sixty-three organizations contributed \$840,000 toward the event.



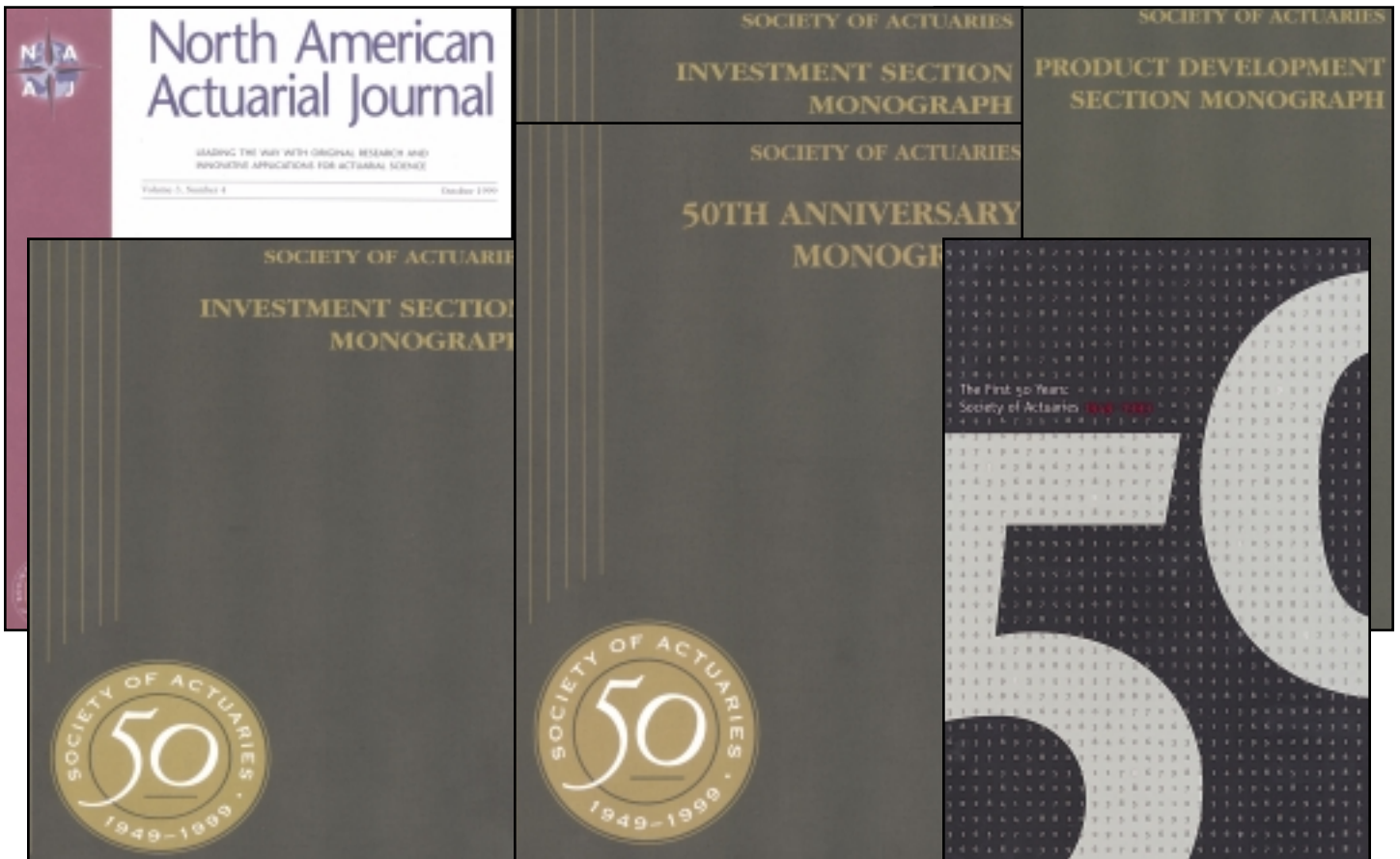
Record-breaking attendance of 3,000 registrants and guests marked the 50th Anniversary Annual Meeting, Oct. 17-20, San Francisco.



A once-in-a-lifetime event



Landmark historical events in science, economics, and politics are shown in tandem with major actuarial events on this timeline created by James Hickman for the new history book, The First 50 Years: Society of Actuaries 1949-1999.



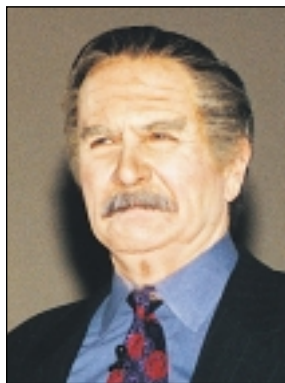
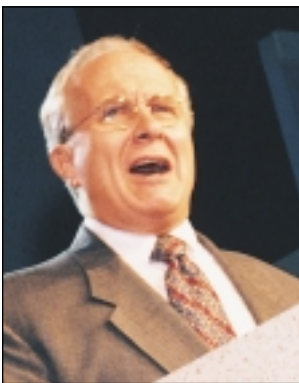
The year-long 50th Anniversary Celebration highlighted the intellectual history of the SOA as well as its organizational development. SOA publications showcased important scientific papers as well as articles on actuaries' contributions to business and society.

SOA's golden year (continued from page 11)

Highlights of the 50th Anniversary Annual Meeting included appearances by major public figures. Keynoters for the Oct. 18 opening general session were former New York Governor Mario Cuomo (left) and former "drug czar" William Bennett (right), shown in an onstage conversation with SOA President Bolnick (center). Cuomo and Bennett looked at the values underlying contemporary beliefs and events.



Left: Closing the meeting at the Oct. 20 general session, former U.S. Army General H. Norman Schwarzkopf reminded the audience that everyone is a leader somewhere in life and that leaders must remember the people they lead, "human beings who have dreams, ambitions, and hopes, just as the leader has." Right: Former UNICEF Deputy Executive Director Stephen Lewis, speaking at the Oct. 19 Presidential Luncheon, urged actuaries to bring their skills and expertise to emerging nations. "If such things were available earlier in countries when they are struggling for viability, then the ... desperate impoverishment that breeds the conflict and the breakdowns might never occur," he said.



Actor Richard Henzel portrayed both Harry Truman (left) and newsman Walter Cronkite (right) in the opening and closing general sessions respectively.

Renowned singer Tony Bennett brought his heart to San Francisco for the Oct. 19 gala dinner.





Tony Bennett shown here at the gala.



The “Andrews Sisters” sang the Canadian and U.S. national anthems as well as big-band hits of the ‘40s at the opening general session.



“Happy Birthday, SOA!” Confetti and balloons fell as a 7-foot-tall birthday cake was rolled onstage at the closing.

SOA's golden year (continued from page 13)



Visitors to the SOA's 50th anniversary exhibit booth got a sense of the organization's founding, development, and future endeavors. Making its way to major SOA meetings in Atlanta, Seattle, Los Angeles, and San Francisco, the exhibit showcased items including TIMS and Bowmar calculators, original artists' sketches of the SOA seal, and pictures of members from the SOA's two incorporating bodies, the Actuarial Society of America and the American Institute of Actuaries.



Won How Lo (right), president, Actuarial Institute of the Republic of China, presents a 50th anniversary gift for the SOA to President Howard Bolnick.

The Actuary • May 1999

Looking back

The Actuary's success was forecast in debut issue
 by William C. Cutlip
Editor-in-Chief, The Actuary

In the first issue of *The Actuary* one can see a forecast of the reading material that would be available to the actuary. From 1949 to 1999, the magazine has followed a path of growth and success. The magazine's success was forecast in its debut issue. The Actuary's success was forecast in its debut issue. The Actuary's success was forecast in its debut issue.

Today's editor remembers the first
 by William C. Cutlip

When I was a young actuary in my first job, I gave a course study. It was a course study. It was a course study. It was a course study.

SOCIETY OF ACTUARIES

Thanks for a great 50th! Click for info

SOA Executive Director Announced

ERNST & YOUNG LLP

FLASH! News Release: Midwestern culture from Florence, Georgia

Spring 2000 Catalog

Retirement 2000

Applications for Spring Exams

Application Course 7 Pre-Test

Practical Risk Adjustment for Employers and Payors

New Career Web Site

Happy Birthday, SOA Card Contest

(Left) The Actuary celebrated the SOA's 50th year with a story on the newsletter's growth and an article by 1996-99 Editor Bill Cutlip about the first editor, Andy Webster. (Right) The SOA's Web site (www.soa.org) played an integral role, announcing golden-year activities and hosting anniversary sponsors' banner ads.

Biggest year yet

Celebrating a landmark in a time of rapid change

The last year in the 20th century was an important time for the Society of Actuaries. Central to the Society's 1998-99 activities were the celebration of its 50th anniversary, consideration of the Big Tent concept for the profession's future, finalization of its new education and examination system for implementation in 2000, and sponsorship of a wide range of scientific projects and seminars.

Marking its golden anniversary, the Society's dual goal was to highlight important landmarks in the profession and actuarial thought while also exploring the impact that actuaries have had — and can continue to have — on vital national and international issues and events. Anniversary activities included major public figures keynoting the annual meeting, special editions of SOA publications, a new book on the SOA's history, and a media campaign for the Futurism Section's outlook for the years ahead. (See pages 10-14).

The Big Tent concept

President Howard J. Bolnick spearheaded a Society-wide discussion of the Big Tent concept for the profession's advancement. The Big Tent approach sees actuaries as financial professionals working in a wide range of organizations and business disciplines, educated in a variety of ways (including the traditional self-study method), and qualified by the actuarial professional organizations.

Open discussion of the Big Tent concept was launched with the publication of the report of the 1997-1998 Strategic Planning Committee (supplement, *The Actuary*, January 1999), which was headed by then President-Elect Bolnick. Throughout 1999, members discussed their views through sessions at SOA meetings, *The Actuary* ("In favor of change," May 1999, and "Past presidents speak out," June

Year in review, 1998-99

1999), the SOA Web site's discussion forums, and actuarial club meetings. Bolnick discussed the concept at the SOA's two spring meetings, Valuation Actuary Meeting, annual meeting, 15 actuarial club meetings, and several committee meetings.

The SOA Board of Governors approved taking next steps toward Big Tent implementation at its May meeting. These steps include defining a vision for actuarial education for the year 2005; developing strategies and plans to implement increased continuing education activities; forming a task force to establish a systematic program of outreach to other professional, industry, and public policy groups; and asking the Council of Presidents to consider how the profession can be more effective working through the North American organizations.

Discussion of the Big Tent concept and its specifics is expected to continue next year as the SOA Board considers the Society's and profession's future.

Throughout the year, the Joint Task Force on Academic Relations — cosponsored by the Casualty Actuarial Society (CAS), Canadian Institute of Actuaries (CIA), and the SOA and chaired by SOA Past President Steve Radcliffe — worked to articulate a vision of the partnership between the academic community and the actuarial profession for the year 2005. Its work culminated in a draft white paper that identified the motivation and objectives

for the partnership, articulated a vision for 2005, and identified initiatives to make the vision a reality. Those initiatives include enhancing existing efforts, such as the listing of academic actuarial science programs (see the SOA Web home page, www.soa.org, click *Academic Relations*) and possible new endeavors. The latter include programs that could facilitate academic, business, and government actuaries jointly working on practical actuarial projects; actuarial profession accreditation of academic actuarial science programs; and a comprehensive examination option to obtain credit for all jointly sponsored CAS and SOA examinations.

At their fall meetings, the individual CAS, CIA, and SOA leaderships discussed the draft and approved the formation of a permanent Joint Committee on Academic Relations. The committee's charge is to facilitate coordination of efforts and efficient use of resources in the partnership between the academic community and the profession. The task force will finalize the white paper and submit it to the leadership groups for approval to distribute to their memberships for reactions and suggestions. If approved for distribution, the paper will be distributed to the groups' members early in 2000.

Education 2000

Dozens of volunteers joined selected SOA staff members to complete the implementation of the SOA's re-designed education and examination (E&E) system in time for its launch in January 2000. This year's work included providing transcripts for candidates showing the conversion of their exam credits from the old system to the new, completing course reports and sample exams, instituting policies and procedures for the new Course 7

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Year in review (continued from page 15)

seminar and the professional development requirement, finalizing the course of reading, and setting the examination calendar.

Implementation of the professional development (PD) requirement for Fellowship candidates proceeded this year. Building on the framework and general requirements approved by the SOA Board and continuing the work initiated by the Task Force on Professional Development, the PD Committee has developed guidelines, criteria, mechanisms, and procedures to establish this very important new facet of the educational system. Several SOA meeting sessions and seminars were approved as eligible for PD credit. Selected sessions sponsored by other organizations, including CIA and Conference of Consulting Actuaries programs and the Dec. 9-10 Bowles Symposium at Georgia State University, also obtained SOA-approved status as eligible for PD credit. PD unit values were established for examination-validated options; model plans were developed, and the receipt of initial PD plans began on Oct. 1.

The PD Committee has worked hard to ensure effective communication with candidates by establishing a section on the SOA Web site entirely devoted to the requirement. The PD Web page provides a wealth of knowledge regarding the PD requirement, including guidelines for advisors, model plans, a sample project outline, and answers to frequently asked questions. The committee has also set up an e-mail address for candidates to voice concerns and obtain answers to their individual questions.

Another major effort in the implementation of Education 2000 has involved the many aspects of Course 7 – Applied Actuarial Modeling. The hands-on, three-and-a-half-day intensive seminar is preceded by a pre-test to assure the candidate possesses sufficient background to participate in the seminar.



The SOA's relationship with the growing actuarial profession in China included a special luncheon for Chinese guests at the 1999 annual meeting. Many international actuarial dignitaries attended.

Arrangements to administer the pre-test and to secure faculty and seminar sites as well as the establishment of course readings are well underway.

In September, the SOA Board formed the new Task Force on Education and Qualification 2005. The charge of the Task Force is to provide further refinements to Education 2000 and prepare for the "next generation of an evolving system." Chaired by Steve Radcliffe, the task force will seek liaison representation from the CAS, CIA, U.K. Institute of Actuaries, Faculty of Actuaries, and Institute of Actuaries of Australia.

Meeting the demands of globalization

The Society continued adapting to a changing business environment, in which technology allows capital and information to flow more freely than at any time in history.

The SOA Board approved changes to the SOA's global policy. The revisions include asserting that the Society is interested in formal liaisons with key national actuarial organizations; in enhancing global recognition to help create more opportunities for actuaries;

in acting in concert with the IAA; and in acting in specific ways, such as supporting national organizations that choose to use the SOA E&E system, to encourage the profession's development worldwide.

Like other financial professionals, actuaries can now more easily move to career positions or consulting assignments in a variety of countries. Furthermore, trade agreements being established by many nations support the notion of recognizing designations in foreign jurisdictions in order to facilitate the trade agreements. Acknowledging these developments, the Board formed the Task Force on Mutual Recognition in March 1999 to explore whether and how to grant SOA membership status to fully qualified actuaries from other organizations. At its September meeting, the SOA Board approved the task force's recommended process for mutual recognition; entering into mutual recognition agreements with the U.K. Institute and Faculty of Actuaries; and formation of an E&E Assessment Committee to evaluate a mutual recognition request from the Institute of Actuaries of Australia.

The SOA continued to be active in the International Actuarial Association (IAA). Dominating activity again this year was the IAA's Insurance Accounting Committee. The group addresses worldwide actuarial needs in light of international accounting standards being developed by the International Accounting Standards Committee (IASC). Chaired by SOA Past President Sam Gutterman, the IAA committee submitted responses to several IASC exposure drafts for new or revised accounting standards. The next step in this process is the publication in early December of the "Issues Paper on Insurance Accounting," which will have a six-month exposure period for comments. The IASC will develop a proposed accounting standard later in 2000 or early in 2001. SOA member Paul McCrossan is a major contributor to this effort as the IAA's official liaison to the IASC's Insurance Accounting Steering Committee, providing actuarial insights into the steering committee's direction as the exposure drafts evolved. In another role, Gutterman similarly serves the IAA as its liaison to the IASC Discounting Steering Committee, which is developing a standard for discounting in the calculation of present value of future cash flows.

The SOA correspondent office in Hong Kong, established in 1997, this year became the Joint Actuaries Office to support the profession in China and Southeast Asia. The office is funded by the SOA, the Faculty and Institute of Actuaries, the Institute of Actuaries of Australia, and the Actuarial Society of Hong Kong.

President Bolnick represented the SOA at many special events, including ceremonies honoring the 50th anniversary of the Actuarial Society of South Africa and the 100th anniversary of the Institute of Actuaries of Japan, as well as the 10th East Asian Actuarial Conference in South Korea.

A delegation of Chinese actuaries and educators attending the SOA's 50th Anniversary Annual Meeting was a continuation of efforts begun by Bolnick

in 1998. As president-elect, Bolnick led a delegation on a September 1998 tour of China and Kuala Lumpur to help actuaries there identify their needs and discuss ways to meet them.

Throughout 1999, Bolnick and others participated in numerous phone calls and meetings with the SOA's China Region Committee. The committee and its chairman, K.C. Chan, are helping the world actuarial committee support the profession in China. A comparable group, the SOA's Southeast Asia Committee headed by Hassan Kamil, is actively exploring ways to support actuarial students in that region.

Scientific contributions and recognitions

SOA research projects completed this year included:

- Managed Care and Performance Measurement: Implications for Insurance Markets; the report will be published in an upcoming issue of the *North American Actuarial Journal (NAAJ)*
- Survey of Asset Valuation Methods for Defined Benefit Pension Plans
- Multivariate Analysis of Pension Plan Mortality Data
- HEDIS Measures and Managed Care Enrollment; the report was published in *Medical Care Research and Review*, vol. 56, supplement 2, 1999
- 1997 Preferred Underwriting Survey Report
- "Life Insurance Companies Investing in High-Yield Bonds," report of the project, Long-Term Bond Yields of Life Companies with Junk Bond Portfolios
- 1993-94 Group Annuity Experience Report
- 1986-91 Individual Disability Loss-of-Time Report
- 1986-94 Credit Risk Loss Experience Study: Private Placement Bonds Report

Two recent SOA research projects focused on cash balance pension plans, a topic of widespread public debate. A new project, Actuarial Aspects of Cash

Balance Plans, was undertaken this year. The article "Benefit Value Comparison of a Cash Balance Plan," published in the October 1998 issue of the SOA Pension Section's journal, *The Pension Forum*, was requested by several major news organizations this year.

November saw the release of the exposure draft of the RP-2000 Mortality Tables for uninsured pensions. The tables are based on the largest collected data set of uninsured, privately sponsored pension plan mortality experience ever collected by the SOA. It has provided an opportunity to consider features that may not have been addressed in the past, including mortality of participant status, collar type, industry, and size of annuity.

In October, the exposure draft of the Joint CAS/SOA Statement of Principles Underlying Actuarial Science was released for comment by the two groups' members and other interested parties. Significant changes were made as a result of feedback on two discussion drafts, the latest issued in August 1998. Comments on the exposure draft will be considered early in 2000.

Work begun in spring 1999 continued on a review of the process by which the SOA conducts its experience studies. Sam Gutterman, the reviewer, in his first report, described the importance of SOA experience studies and some recommended steps to get them on track. His final report is expected to be completed in 2000.

The SOA periodically conducts scientific efforts to aid the NAIC. Among such initiatives this year was formation of the Individual Life Insurance Valuation Mortality Research Task Force. This group will develop mortality tables to serve as the basis for a new CSO Table, the valuation table that sets the level of policy reserves that must be reported to regulators. The table has strong indirect effects on the design of insurance products and the level of

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Year in review (continued from page 17)

premiums they require.

The 50th anniversary brought a special award for outstanding contribution to the profession during the last 50 years. The James C.H. Anderson Memorial award was presented to Dr. Hans Buhlmann by the Actuarial Education and Research Fund (AERF) at the SOA's annual meeting. Dr. Buhlmann's accomplishments include publication in more than 60 journals worldwide and past presidency of the IAA's ASTIN section (Actuarial Studies in Non-Life Insurance) and of the Swiss Association of Actuaries. The prize is a one-time \$10,000 scholarship to Dr. Buhlmann's alma mater, the Swiss Federal Institute of Technology, Zurich, where he is now a professor emeritus.

The AERF also sponsors the Everett Curtis Huntington Prize, honoring the best research paper receiving Associate-ship or Fellowship credit under the SOA's educational program. This year's award was given to Dorothy Andrews, ASA, for her paper, "Simplified Cash-Flow Testing of Traditional Participating Whole Life Insurance."

The 1999 David Garrick Halmstad prize for the best actuarial paper published in a journal was awarded for the paper "Forecasting Social Security Actuarial Assumptions," published in the October 1997 issue of the *NAAJ*. The recipients of the award, also sponsored by AERF, were Edward Frees, FSA; Yueh-Chuan Kung, Ph.D.; Marjorie Rosenberg, FSA; Virginia Young, FSA; and Siu-Wai Lai, ASA.

The SOA's 1999 Annual Prize, given for the best paper in an SOA publication, went to Hans U. Gerber, ASA, Ph.D., and Gerard Pafumi, Ph.D., for "Utility Functions: From Risk Theory to Finance," published in the spring 1998 issue of the *NAAJ*.

The Edward A. Lew Award for modeling was presented to Hans U. Gerber and Elias S.W. Shiu for their

The SOA Board of Governors passed a resolution of appreciation honoring SOA Executive Director John E. O'Connor, Jr., after his death on June 15. SOA President Howard Bolnick presented the resolution to Judi O'Connor at the 50th Anniversary Annual Meeting.



paper, "Investing for Retirement: Optimal Capital Growth and Dynamic Asset Allocation," which will be published in an upcoming issue of the *NAAJ*. The award, which carries a \$10,000 prize, is sponsored by the SOA Committee on Knowledge Extension Research.

Awards were given to three papers presented at the Retirement Needs Framework conference, Dec. 10-11, 1998. First prize of \$2,000 was awarded to Eric Stallard, research professor, Duke University, for the paper, "Projections of Acute and Long-Term Care Needs and Expenditures of the U.S. Elderly Population." Two papers received honorable mentions with a \$500 prize attached to each. They were "Analysis of Financial Needs in Retirement," Bruce L. Jones, associate professor, University of Western Ontario, and "Ruin Probabilities, Asian Options, and Life Annuities," Moshe Milevsky and Chris Robinson, finance professors, York University, Ontario.

John Culver Woody, an actuary who was eminent in several fields, earmarked funds in his estate to provide scholarships for actuarial students. For the 1999-2000 academic year, Woody Scholarships were awarded to Michael Hanley of the University of North

Carolina at Chapel Hill, Chen Hui of Zhongshan University, May-Yee Ng of the University of Iowa, and Peter Shelley of Elizabethtown College.

Innovation marks CE seminars

Several innovative continuing education events were held this year, bringing together well-established experts to advance knowledge of issues impacting major public and business situations.

The seminar "Impact of Social Security Privatization on Retirement Income," held May 13 at the University of Michigan, Ann Arbor, featured 12 Canadian, U.S., and international experts discussing the possible impact of privatization, particularly individual accounts, on social security systems. The seminar was jointly sponsored by the SOA, the university's Mathematics Department and Business School, and the American Academy of Actuaries.

The second Annuity Conference was cosponsored by the SOA, LIMRA International, and LOMA March 24-26 in San Antonio, Texas. The conference addressed informational needs of actuaries, marketers, managers, and other professionals working with annuities.

The conference "Fair Value Accounting for Insurance Companies" was held March 18-19 at New York University to discuss the basis for

realistically valuing assets and liabilities on insurance company balance sheets. The conference was held as FASB worked to set standards for this valuation. The conference was cosponsored by the SOA and the Salomon Center of NYU's Stern School of Business, with the Association of Investment Management and Research and FASB as cooperating sponsors.

The SOA's continuing education (CE) volunteers and staff began work on a concept, the CE "catalog," a listing of available CE programs. The intent is to develop a complete list of course offerings for at least one entire year, possibly two. The catalog currently is posted on the SOA's Web site.

Professionalism

Several developments in professionalism emerged this year that will affect SOA members.

The Code of Professional Conduct for the U.S. profession is being revised. The first exposure draft was distributed this year, and a second is expected to be issued in 2000. The revision is intended to improve the code's clarity, address issues arising from internationalization, and reflect the need for changes identified in recent years by the Actuarial Board for Counseling and Discipline (ABCD).

U.S. actuaries are affected by a revision to Article X of the bylaws of the American Academy of Actuaries, which include governance of the

ABCD. The revision complements the Rules of Procedures for the ABCD, reflecting knowledge acquired in recent years. Other changes include allowing, for the first time, a private reprimand as a form of discipline under certain conditions.

Governance and leadership

A new special interest Section, the Long Term Care Insurance Section, was added to the roster in 1999. This brings to 15 the number of Sections gathering members together on topics of professional importance.

Operation of the Society along practice area lines continued to develop. Among 1999's events were changes in SOA policy to ask that a Section coordinate and enter into agreements with SOA practice areas when the Section performs activities fundamental to the SOA mission. The new policy also asks a Section to coordinate reports to the board with the appropriate practice area committees when Section activities relate to one or more practice areas.

Aiming for greater consistency and more effective implementation, the SOA strategic planning process this year moved to a multi-year format for the



Shown at the annual meeting's closing session are the meeting's leaders (L to R): Ian M. Rolland, 50th anniversary honorary chairperson; Bradley M. Smith, 50th anniversary chairperson; Deborah K. Sloan and Melvin J. Feinberg, co-chairs, program committee, content; and Linda M. Delgadillo, SOA managing director, marketing and membership services.

first time since its inception. Chaired by the new president-elect, the planning committee has traditionally developed a different plan each year, reflecting the chair's vision for the Society. Under President-Elect A. Norman Crowder, III, the committee focused on the existing strategic plan formulated by the 1998-99 committee chaired by Howard Bolnick. Specifically, the committee explored possibilities for implementing the Big Tent concept. The 1999-2000 president-elect, Robert L. Brown, expects to continue this practice.

Several new committees were formed to reflect current and anticipated needs. Now among the Society's 100-plus committees are those on external relations, banks and financial institutions, post-welfare retirement benefits, health benefit system seminars, and health benefit system online programs and publications. The board also approved conversion of the Committee on Career Encouragement to a joint committee with the CAS.

In the summer, the SOA conducted its periodic Member Needs Assessment Survey. The study showed a high degree of member satisfaction with SOA programs and services.



Gathering at the annual meeting were (L to R) Rita DeGraaf, executive director, Conference of Consulting Actuaries; guest Mary Patrick; James Murphy, former SOA vice president; Faye Holland; and David Holland, 1996-97 SOA president.

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Expansion of the SOA's online communications continued, reflecting worldwide trends. In light of the exploding use of the SOA's 3,000-page Web site, an editorial board was formed to oversee the site's policy, procedures, and content. New forums are being added to the discussion section, which also is being upgraded to allow for real-time chat and to support a new requirement, developed by the editorial board, that participants register and use their names online. The SOA *Directory* was posted on the Web site as a searchable database. And the Web site's "Newsroom" section was redesigned for easier use by journalists to improve communication of the Society's public information messages.

Staff leadership suffered a tragic loss with the death of Executive Director John E. O'Connor, Jr., on June 15. His 20-year commitment to the Society was honored in several ways.

The SOA Board established the John E. O'Connor, Jr., Distinguished Service Award for outstanding Society volun-

teers. The first recipients were W. Paul McCrossan and Walter Rugland for their significant roles in launching the International Actuarial Association to bring the profession together globally.

The board also passed a resolution expressing its "deepest and heartfelt appreciation ... for his years of service" and acknowledging his numerous contributions, including shepherding the extensive growth of the Society and bringing "his integrity, leadership, and strength" to his office. Also, a history book commissioned for the SOA's golden anniversary, *The First 50 Years: The Society of Actuaries 1949-1999*, was dedicated to him. The book and resolution were presented by President Bolnick to O'Connor's wife, Judi, during the 50th Anniversary Annual Meeting, attended by the O'Connors' children and their spouses.

A search committee headed by Norm Crowder was formed to identify candidates for executive director. Sarah J. Sanford was named to the position and joined the staff Dec. 1. She was chief executive officer and executive

director of the American Association of Critical-Care Nurses, held committee positions in the American Society of Association Executives (ASAE), and serves on the ASAE Foundation Board of Directors.

Recruiting for the profession

A new Web site, *www.BeAnActuary.org*, to interest students in the profession was jointly developed by the SOA and CAS committees for career encouragement and minority recruiting.

The site debuted at the fourth CAS/SOA Actuarial Career Information Fair, held Oct. 20 at the annual meeting in San Francisco. Attended by about 120 college and high school students and educators, the half-day event featured breakout sessions on actuarial career opportunities and the CAS and SOA exams. Fifty-seven sponsors, including 31 booth sponsors, supported the fair.

The CAS/SOA Joint Committee on Minority Recruiting also initiated a new grant process for universities to establish summer actuarial programs for high school students. Programs at four universities received \$32,000 under the new guidelines. More than \$95,000 in corporate and individual donations was raised to support the summer programs and other scholarship programs, which gave \$36,500 to 29 qualified college students to encourage their pursuit of an actuarial career.

This year, the committees expanded their program of external activities by participating in two Hispanic career development conferences and the National Alliance of Black School Educators Conference. The committees continued to participate in the Joint Mathematics Meeting, the joint annual meeting of five professional associations for math educators and mathematicians.



About 120 college and high school students and educators gathered at the fourth CAS/SOA Actuarial Career Information Fair. Attendees eagerly sought advice, insights, and giveaways provided by the 31 booth sponsors.

Annual treasurer's report



by Douglas C. Doll
SOA Vice President/Secretary/Treasurer

The SOA's budget for 1999, even with a \$25 increase in dues (for Fellows and for those who have been Associates for four years or more) had a projected loss of \$46,000. The SOA Board wanted to improve these results for the year 2000 budget and spent considerable time early this year debating budget policies and objectives. One objective adopted early in the process was to make future dues increases consistent with general inflation. For 2000, dues for Fellows and for Associates who became ASAs prior to 1997 will increase by \$10 to \$335, and the dues for Associates who became Associates after 1996 will increase by \$5 to \$165.

Policies also were adopted on target budget goals for each of the four main service segments (basic education; continuing education; research; and member services, overhead, and other activities). These policies have an immediate impact on decisions such as the pricing of the year 2000 exam syllabus and the year 2000 spring and annual meetings. Longer term, these policies will influence the level of

general services provided and/or stimulate the leadership to seek additional sources of revenue.

The numbers

The SOA Board wanted the 2000 budget to break even. The summary of the budget, as approved by the board in October, is compared below with the 1998 actual and 1999 budget:

	Amounts (In \$1000's)
Income	
1998 Actual	\$16,328
1999 Budget	17,229
2000 Budget	19,655
Change in Net Assets	
1998 Actual	72
1999 Budget	(46)
2000 Budget	(3)
Anticipated member equity as of Dec. 31, 1999	\$6,782

The above figures are on our management basis of accounting, which is slightly more conservative than GAAP. The complete GAAP financial statements and the report of the independent auditors will be published in the *TSA Reports*.

The current budgeted membership equity position of \$6.8 million is about 35% of annualized expenses, compared with the target minimum of 30%. As of mid-November, it was difficult to predict 1999's results. The September financials overall were close to budget, but it seemed likely that the year-end actual figures would exceed budget. If this happens, the membership equity will be somewhat reduced, but it should still be above the 30% level. Not included in the surplus position is approximately \$1.6 million of restricted funds (mostly Sections' surpluses).

Commentary on 2000 budget

Basic education revenue is budgeted at \$8.3 million. Sales of study notes are

expected to provide a one-time bulge in revenue next year, the first year of the new syllabus. For the year 2001, we expect basic education to just meet its budget objective.

Continuing education – which includes the spring and annual meetings, seminars, and symposiums – has been asked by the board to increase its activities to support continuing education for existing members and the professional development component of the Fellowship track. At the same time, it is expected to pay its own way and even contribute a little to the bottom line. The 1999 results are skewed by the 50th Anniversary Annual Meeting. For the year 2000, some expense reduction and/or revenue enhancements will be needed for the meetings, compared with 1998.

Research expenses for 2000 include \$0.4 million for support of The Actuarial Foundation, \$1.0 million for experience studies (offset by \$0.8 million of experience studies revenues), and \$1.3 million for other research activities. The board recently approved an agreement with the Foundation that controls the level of support, and the board plans to address the efficiency of other research activities in the coming year.

The member services, overhead, and other activities category, which is largely supported by dues revenue, has \$6.2 million of budgeted expenses for the year 2000, a 30% increase over 1997. This increase is attributable to new staff and programs. Future growth will need to decrease significantly unless other revenue sources are found.

The SOA has an adequate surplus, but budgets in 2001 and later will be more difficult to balance because contributions from basic education are expected to decline. Some tough decisions will need to be made.

Growth continues for Actuarial Foundation

In 1999, The Actuarial Foundation continued its work of representing the profession in the areas targeted by the Foundation mission statement: elementary and high school financial education, consumer education, and research. Cecil Bykerk, chair of the Foundation Trustees, said 1999 has been an active year in all these areas.

Education

Enhancing students' financial understanding has remained a focus of the Foundation.

In an exciting new partnership with Junior Achievement, a Foundation project team is helping build a virtual high school. When completed in fall 2000, the electronic high school will offer a full curriculum to those who

aren't able to attend school physically, adults who didn't complete their educations, homebound students, and others. The actuarial contribution to the project, made possible by a \$100,000 grant from Milliman & Robertson, will be to the economics curriculum, specifically the concept of risk.

The team has already identified ideas that students should be familiar with. Once the lesson plans, reading lists, and other parts of the curriculum are developed, they will be reviewed by the project team.

In Canada, a team of actuaries from William M. Mercer Incorporated and the University of Calgary is helping Science Alberta Foundation, an educational organization dedicated to

delivering high-quality curricula to remote areas of the province, create "math in a crate." This traveling carton of materials will help teachers explain mathematics to junior high pupils in rural Alberta. The crate, filled with educational math materials, will be checked out for use like a library book by teachers and shipped to the school. It should be ready for pilot testing in late 2000.

The U.S. Department of Education (DOE) has asked to review the Foundation's Financial Wizards math tutoring and mentoring program for potential export to other schools. Financial Wizards is currently in use at the Samuel Mason Elementary School in Boston. The program was started with a grant from the Foundation's Advancing Student Achievement program. It teaches children in grades K-8 concepts of finance. Currently, the DOE is reviewing and revising the primary grades component (K-3) of public education.

In August 1999, Advancing Student Achievement was honored with the prestigious Summit Award of the American Society of Association Executives (ASAE). The program was selected with eight other national winners from 243 entries in ASAE's "Associations Advance America Campaign." The award honors organizations with programs or projects designed to contribute to society in the areas of education, skills training, standards-setting, business and social innovation, knowledge creation, citizenship, and community service.

Research projects

A \$30,000 grant helped fund the Canadian Institute of Actuaries' symposium, "Stochastic Modeling for



Dr. John C. Hull, professor and director of the Bonhan Centre of Finance, University of Toronto, delivered the luncheon address at the segmented fund investment guarantees symposium in Toronto.

Variable Annuity/Segmented Fund Investment Guarantees" in Toronto. The project was initiated when the CIA was asked by Parliament to produce guidelines for modeling segmented funds guarantees. The two-day symposium attracted 260 attendees, many from the United States, and the symposium's 26 research papers have been made available on CD-ROM.

The Foundation provided a \$15,000 grant to support the 1999 Thomas P. Bowles Jr. Chair of Actuarial Science Symposium, "Financial Services Integration: Fortune or Fiasco?" The symposium, sponsored by Georgia State University, addressed the risks in financial services integration. The program presented the experiences of companies who have integrated financial services into insurance businesses, noting the roles of the actuary and the financial services professional. The symposium also looked to the future by exploring the role of electronic commerce and public policy risks affecting financial services integration.

The "Risks in Investment Accumulation Products of Financial Institutions" symposium, held in January 1999, was cosponsored by the Foundation and Nationwide Financial Services. The symposium focused on identifying residual risks inherent in accumulation products and exploring techniques for managing them. The two-day New York event drew about 120 attendees.

Consumer education

The Actuarial Foundation's consumer education mission also was addressed in 1999. The Foundation provided a \$25,000 grant and a project team of actuaries to produce a video, "4 Trillion and Counting," on the history of public retirement systems. Real Earth Productions produced the video and will market it as a TV program. The project surveys trends, demographics,



The Foundation's Advancing Student Achievement program received a major honor, the Summit Award, from the American Society of Association Executives (ASAE). Shown at ASAE's annual meeting, Aug. 22, San Diego, are (L to R) Kerry Stackpole, chair of the Summit Award committee; Joseph G. Abel, Ph.D., director of development and marketing, The Actuarial Foundation, receiving the Summit trophy; and Michael S. Olson, president and CEO, ASAE.

and other information on how retirement systems work and what they accomplish in society. The Foundation has collaborated with a number of new partners to fund the documentary, including the Pension Benefit Guaranty Corporation, Deloitte & Touche, Andrus Foundation, and AARP.

In a related project, the Foundation will work with the Washington, D.C.-based WISER (Women's Institute for a Secure Retirement) to develop a 15-20 page booklet tentatively titled "Planning for Retirement - Annuities: What You Need to Know." The booklet will be designed for the general public, written in easy-to-understand language, and aimed at women concerned about their retirement needs. A project team including Anna Rappaport, Rod Rhoda, Marc Twinney,

and Larry Zimpleman is working to produce the booklet's text. If successful, this \$30,000 project could lead to a second project with WISER on health disability benefits.

Fundraising

This year was the second year of the Foundation's Annual Giving program. Contributions Committee Chair Chuck Rohm has outlined two fundraising goals: continued acquisition of new donors and strong renewal of 1998 annual donors. To date, the Foundation has received more than \$160,000 in gifts to the annual giving program. The committee is currently developing a planned gifts/estate gifts program.



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