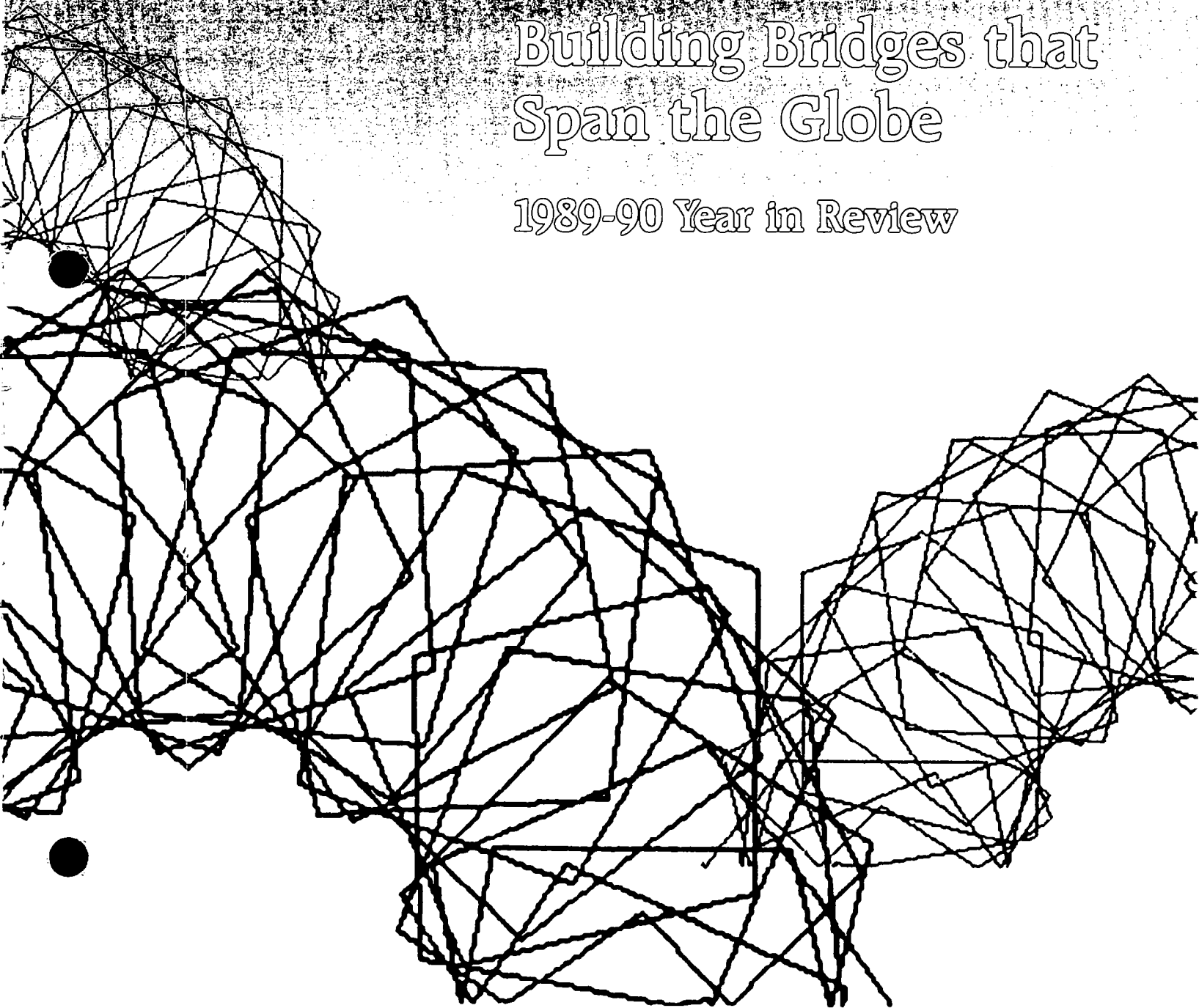




THE Actuary

Building Bridges that
Span the Globe

1989-90 Year in Review



THE Actuary

The Newsletter of the
Society of Actuaries

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Editorial

Evolution of the 'Year in Review'

by Linda B. Emory

This special report on the Society of Actuaries 1989-90 program year evolved from a desire to communicate the significant events of the year. SOA members expect an account from their Board of Governors of activities, and so the Publications Policy Committee proposed that an issue of *The Actuary* be entirely devoted to an "annual report," similar to those prepared by other organizations.

The Board adopted the proposal and the Committee gave *The Actuary's* editorial board a few general suggestions about content. The only directives were to "work with the outgoing and incoming Presidents and the Society office staff" and to, above all, "make it interesting."

With no precedent to follow, the Society Communications staff and I approached this first "annual report" with some trepidation. Many activities and events had to be considered for coverage in this brief document. How do you say enough and not repeat in-depth articles already presented? Does the Presidential Address say it all?

The first logical step seemed to be to poll all Board members, asking

them to let us know what they considered to be key SOA events and significant activities in the past year. We also studied Board minutes for major actions and asked for input by Society staff directors and department heads. After analyzing all the feedback, it seemed that an underlying current ran through most of the year's actions — laying the groundwork for programs that would continue to expand the reach of the Society and the scope of the actuarial profession. That led to the unifying theme, "Building bridges that span the globe."

After sifting through all the possible topics, we decided to briefly report significant events already covered extensively in previous articles in *The Actuary* and refer the reader to past issues for more detailed explanations. More space could then be devoted to other areas of importance that had not been previously reported in detail.

Thus, the SOA "Year in Review" evolved. If it presents valuable information to the SOA membership in an interesting way, then we have fulfilled our mission. Your comments and suggestions are most welcome.

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Responding to the challenge: A blueprint for the '90s

by Allan D. Affleck
President, Society of Actuaries, 1989-90
Address at SOA Annual Meeting
October 16, 1990
Orlando, Florida



Allan D. Affleck

As we move toward that magical year 2000, and the beginning of a new century, it is appropriate to ask ourselves: "How's the Society of Actuaries doing? What kind of shape are we in?" When I answer those questions, words come to mind like "Healthy and growing!" "Energetic!" "Changing!"

Certainly things are not perfect; certainly with renewed effort we can always do a better job of responding to change, a better job of executing our programs, a better job of supporting our members.

But my assessment of the Society's health is enthusiastically positive and optimistic. Today I want to share some of the things we are doing and talk about steps I believe we must take to assure a meaningful role for the profession into the 21st century.

Our Society has more than 12,000 members, an annual budget of almost \$12 million, and 1,100 volunteer actuaries serving energetically on the boards, committees, and

task forces which really move us forward...all effectively supported by a committed Society staff of 65 in our Chicago headquarters.

As I have been privileged to meet with many of you, members across the United States and Canada, listening to your thoughts about what the Society of Actuaries should be doing...four key responses to the challenges ahead come through loud and clear:

- We need to strengthen our relations with colleges and universities.

- We must continue to encourage research.
- We should make our voices heard in the discussion of public issues.
- We have to respond creatively to the changing international environment.

Since this is a meeting of actuaries, let's all feel at home by looking at some numbers...numbers that portray the growth of our profession.

Chart 1 shows the number of students who passed their first actuarial exam during each of the past 10 years. You can see the tremendous

NEW ASA's BY YEAR

<u>Period</u>	<u>Number</u>
1980-84	2,391
1985-89	2,985
Increase	+ 25%

CHART 2

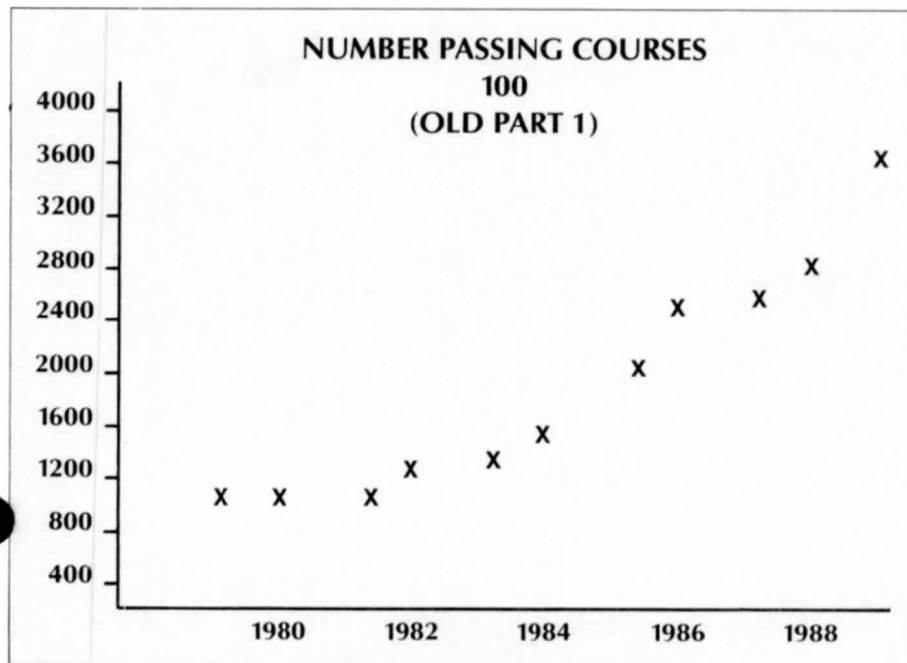


CHART 1

surge in numbers in the past five years. The most recent phase of this growth we attribute to the favorable publicity the profession received by being rated the number one occupation in the 1988 *Jobs Rated Almanac*.

Now let's look at the number of new ASAs by year. Is the larger number of students taking the early exams resulting in an increasing number of ASAs? The numbers to date clearly say yes. Chart 2 shows the number of new ASAs in the two most recent five-year periods.

At first glance, the 25% increase seems substantial. However, Chart 3 shows that, after being relatively flat for the 10-year period 1978-1987, the number of new ASAs has actually surged by almost 50% in the most recent two-year period, 1988-1989.

*President's address cont'd***NEW ASA's BY YEAR**

<u>Period</u>	<u>Number</u>
1978-79	1,191
1980-81	1,098
1982-83	793
1984-85	1,051
1986-87	979
1988-89	1,455
1986-87 to 1988-89	+ 49%

CHART 3

We have not yet seen the impact of these changes on the numbers of new Fellows. In fact, the number of new Fellows has remained relatively flat, even decreasing slightly, during the past 15 years.

However, with the surge of new ASAs that occurred in 1988-89, we will begin to see on Chart 4 a substantial increase in new FSAs over the next few years. Then, as the most recent bulge in those taking the early exams moves through the system, we will see a second surge in the number of new ASAs in 1992/1993, to be followed by another new plateau in the number of FSAs in 1995/1996. If the percentage of new students who become Fellows continues at recent levels, our number of new Fellows will double from current levels by 1995, from roughly the present 250 level to somewhat more than 500 per year.

Our profession is growing! And we will grow even faster in the next 10 years! And that is the first major challenge we face: we must create opportunities for our growing membership, a profession that is attracting many new people into our ranks.

There are two ingredients that are absolutely essential if we are going to capitalize on this growth. Fortunately, we have both!

- A membership that is receptive to growth and change.
- A group of committed and thoughtful leaders – leaders who can plan.

A second major challenge is responding to the demands of our publics – this includes the general

NEW FSA's BY YEAR

<u>Period</u>	<u>Average Per Year</u>
1975-79	300
1980-84	271
1985-89	258
Projected 1995-96	500-600

CHART 4

public, government, other professions, employers, and clients. And, finally, responding to the challenge of our own membership. Will leaders emerge who are prepared to commit half or more of their time to lead 20,000 actuaries?

Let's now return and consider the four responses to these challenges. They were:

- Relations with universities
- Research
- Public issues
- International change

You are aware that we have had a special task force at work preparing recommendations for ways to strengthen the relationships between the actuarial profession and our colleges and universities. The importance of this was reinforced by an article Dr. Jim Hickman wrote to summarize the Centennial Celebration. When asked what can be learned about the experiences of the past century and a scan of the future, his advice was, "Maintain strong foundations. Without preserving deep roots into the mathematical sciences, the actuarial profession will lose its identity."

Maintain strong foundations. It sounds so simple and logical. In order to achieve it, however, I believe we

need much closer relationships with universities, not just for the education they provide, but even more important, for the research and development of new ideas that take place in an academic environment.

Past President Dick Robertson eloquently made the point in 1986 when he said, "The body of actuarial knowledge itself needs the nutrition that the academic world can supply. ...It gives us a bridge to other fields of knowledge that can contribute to actuarial development."

Your Board has already taken a number of initiatives to strengthen our relationships with higher education. Among them are:

- Financial assistance to encourage full-time academic members of the Society to participate in our meetings, seminars, programs, and committees.
- Financial grants to universities when full-time faculty members attain Associate or Fellow status.
- Scholarships to Ph.D. candidates whose thesis topics are in areas related to actuarial science.

These steps are tangible beginnings, but only a beginning in what must be an ongoing process.

Along with education, the second of the two major purposes of the Society of Actuaries is research. It also is the second of our responses to the challenges of the coming decade.

Frankly, prior to a 1988 Task Force Report, our encouragement of research was sporadic and very often limited to simply updating experience studies. That changed with the Task Force Report, and happily life has not been the same since. The dollars allocated for research have increased from \$180,000 in 1986 to about \$600,000 today. I am proud to say our Board has made a major commitment to research, putting our dollars, that is, part of your dues, behind several new research initiatives. We believe this direction is critical for the future success of the Society. Some of the research we are supporting is practical

"The body of actuarial knowledge itself needs the nutrition that the academic world can supply..."

“I am proud to say that our Board has made a major commitment to research.”

and should be of immediate value to actuaries. Other research has less visible results today and is truly an investment in the future.

One of the practical research projects with application today is in the investment area. The project is an analysis of the correlation of asset quality and credit risk by category of investment. We are obtaining substantial data for both private placement bonds and commercial mortgages and plan to publish an analysis of asset default statistics that will be of value to actuaries, to our employers, and to our clients.

This combination of investment research, plus the introduction of significant investment content into the material studied by all future actuaries, should provide a base for the profession to expand its investment knowledge and capability. Surely this is one of the major thrusts for the Society during the 1990s and will provide opportunities not only for existing members, but also for our growing number of new members.

When I was a college student, one of my professors told me I was sometimes guilty of “fuzzy thinking.” Little did I know then that something called “fuzzy sets” might someday help expand the traditional methods of risk analysis. If you are like me and 95% of the actuaries I ask at local clubs, you have never heard of “fuzzy sets” before now. Well, I challenge you to see if you can find out what they are! Before long, we may be integrating a framework of “fuzzy sets” theory into our current models. We have been reading that computer manufacturers and NASA are using “fuzzy sets,” so it will not be surprising if our researchers tell us that some of these concepts can be used by actuaries in an insurance environment. This is just one fun example of how your Society is actively involved in research!

A more pro-active role in public and social issues is critical for our profession's future success. This is the third of the major responses for the years ahead. Our profession needs to

be a vocal participant in discussions of public issues. We have asked the American Academy and the Canadian Institute to be responsible for this public interface role. But our Society and the Casualty Actuarial Society have a major responsibility as well. We must work together closely to integrate our activities and to prioritize our objectives. Then we can focus our own basic education, research, and continuing education programs on what the profession as a whole agrees are the most important issues. One of the changes that will help this process is the Society's representation on the Academy's Board. We also are encouraged by the Academy's new Practice Councils and its greater emphasis on governmental relations. We must work together to make the voice of our profession heard.

international organization. Almost all of us need to be aware of the international environment to be fully effective in our job. The new Section of the International Actuarial Association, called AFIR, focuses on actuarial approaches to financial risk and is trying to build new opportunities for actuaries. Its very successful initial meeting this year indicates that actuaries the world over are increasingly concerned with financial issues. They, like us here in North America, are seeking to build on the opportunity for actuaries to contribute more in the financial and investment aspects of our business.

Even the name, AFIR, which stands for Actuarial Approach for Financial Risk, fits in perfectly with our own objectives for the role of the actuary in the future. We are trying to broaden our horizon to apply actuarial approaches to all kinds of financial risk, not just the traditional insurance, pension, and health risks. We have much to learn in this arena by working together with actuaries from foreign countries, and so we want to keep our members informed about these developments.

Even if your work does not now directly involve you in an international

“Our profession needs to be a vocal participant in discussions of public issues.”

As we know, the theme of this meeting is “International Opportunity,” and I hope you're enjoying this chance to participate in a few of the international touches we have added. I would be remiss if I did not include the changing international environment among my list of issues today. I do this in full recognition that very few of our members work directly in an international role.

Even though that is true, when we consider the number of actuaries who work for insurance companies that have either foreign operations or foreign ownership, or who work for consulting firms that have international clients or international offices, I estimate that over three-quarters of our members are associated with an

role. I believe it will be to your long-term benefit, and the benefit of our profession, for all of us to learn more about business opportunities and professional issues in other countries.

The broadening of our vision through these international experiences can only help our companies here in North America become more competitive and better able to compete in the international marketplace.

During the past year, I have been privileged to speak to a number of actuarial organizations in other countries. In every case, thanks to the earlier work of previous generations of actuaries, I saw that our Society enjoys a reputation as a world leader in education and research. That is a

Continued on page 6 column 1

President's address cont'd

great tribute to the accomplishments of the past, and it is our challenge to continue this tradition for the future.

I believe it is important to say a word or two about last year's constitutional amendment on whether the Society should conduct an experiment in granting credit for college courses. While this issue has been laid to rest, I think a few observations, with the benefit of a year's hindsight, might be appropriate.

Thomas Jefferson once said that "A little rebellion now and then is a good thing." In retrospect, I view the constitutional amendment initiative as its own little rebellion, and I think, in retrospect, that it was a very good thing indeed. I personally was in favor of the experiment, and probably still am, but talking to people about the issue has helped crystalize in my mind the difference between education, where I think the experiment is of great value, and examinations, where our members clearly want the Society to continue to exercise complete control over our standards. Your Board sees this distinction more clearly now and has no plans to explore college credit.

However, I believe the impact of the constitutional amendment vote went far beyond the educational issue. The vote helped the Board be more aware of the importance of members' views. It was the catalyst for more communication to members during the last year, for "Meet the Board" sessions at all our meetings, and for more two-way dialogue at local clubs, in *The Actuary*, and on other occasions.

For members, I hope it has made you realize that you can make a difference. Your views are important. Your views have influence. Your support and encouragement are critical to the success of the profession in the future.

So, regardless of which side you were on, I think the constitutional amendment, speaking from the perspective of more than a year after the debate itself, turned out to be constructive. I encourage you, when you think the Board is moving in the right direction, to be sure to let Board members know. When you think the



Outgoing SOA President Allan D. Affleck, right, hands the gavel to the new 1990-91 President, Daphne D. Bartlett, at the Orlando annual meeting in October.

Board is moving in the wrong direction, do the same. Working together with this type of two-way communication will be much more effective for the profession and a lot more fun for all of us.

In closing, I would like to take a few minutes and offer some more personal comments. First, a few words about the Society staff. The group here today is a small representation of the 65 people in Chicago who work for you and who are supported by your dues. They contribute a great deal to the success of the Society of Actuaries, and I want to depart from tradition by asking them to stand. Please join me in recognizing our staff and their efforts on our behalf. Drop by the registration desk and thank them for the job they are doing.

During the course of serving the Society as President for a year, one faces many important issues and many day-to-day questions. For me, some of the best moments have been the little things, and I would like to share a few of those with you. A special occasion for me was the opportunity to represent all of you and make a presentation at a Temple University luncheon, where Bob Myers' 50th anniversary as an FSA was recognized. If we had an actuarial hall of fame, Bob Myers would be among the early entrants. I know the

esteem with which Bob is held by our members, and it was a real thrill for me to bring best wishes from all of you to him that day.

The opportunity to visit with you at local clubs and on other occasions was a highlight of the year for me.

Finally, I thank members of the Board for their support during the year, John O'Connor for his counsel, Denny Stanley, my other partners, and my staff at Milliman & Robertson for their support and understanding, and most important, my wife Anne for her flexibility and willingness to take a year to share this wonderful experience.

When he was President of Columbia University, Dwight Eisenhower made a statement which expresses my aspirations for the Society in the next decade. My sincere hope is that you share it with me:

There is no limit, other than our own resolve, to the goals we set before ourselves.

Thank you all for the opportunity to serve as your President.

Annual report from SOA Treasurer

by Michael J. Cowell
 Treasurer, Society of Actuaries, 1986-90
 Address at SOA Annual Meeting
 October 15, 1990
 Orlando, Florida

The Society operated in fiscal 1990 with a budget of \$10.2 million in revenue and just under \$10.1 million of expenses, a margin of only 1% of budget. The results for the year exceeded those budgeted, producing a contribution to surplus of \$918,000, 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, 1990, total revenues of \$10,022,000 were 98% of budget, while total expenses of \$9,104,000 were only 90% 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 that these activities are expected not

only to break even, but also to provide a margin to contribute to the Society's membership equity. Table 1 shows a trend of substantial growth in both revenue and margin contribution from these activities.

Table 1
Summary of Self-Supporting Activities
Total of E&E, Meetings, and Seminars
 (000'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

E&E activities continue to be by far the largest single source of gross revenue, accounting for more than 50% of total Society revenue. As in recent years, E&E again had the largest excess of revenue over expense, accounting for \$1,109,000 of the total margin from the self-supporting activities.

Membership programs, which comprise meetings, seminars, and symposia, made a combined contribution to surplus of \$95,000.

Research

At the 1988 Annual Meeting, the Board of Governors made a major commitment to expand the Society's 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 the Society's research efforts becomes sufficient to cover expenses, it is anticipated that the margins from the three major self-supporting activities will partially offset deficits from research. Table 2 reflects this increased commitment to research over the past few years.

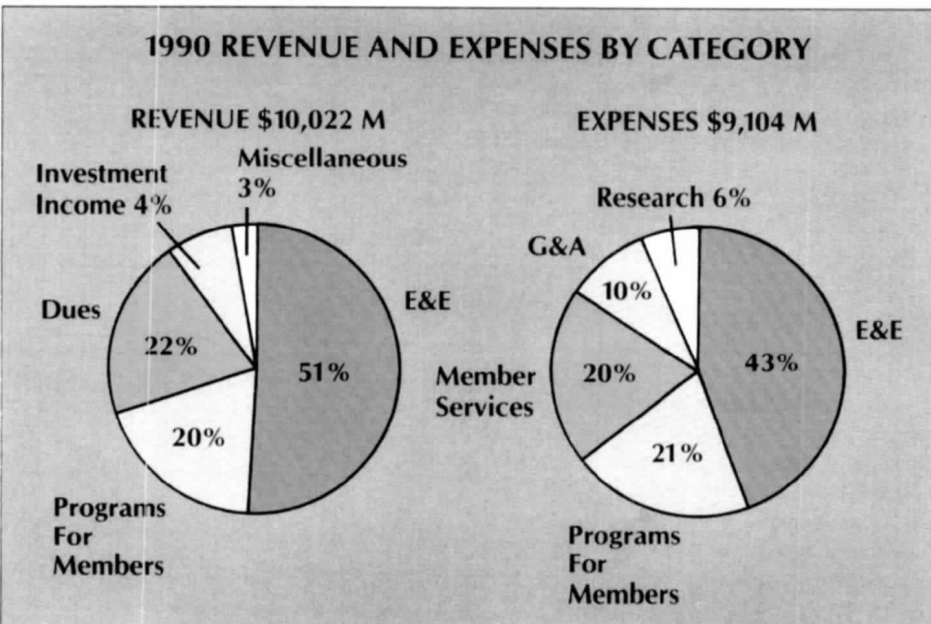


Table 2
Research Activities
 (000's)

	Revenue	Expense	Margin
1986	nominal	\$139	\$(139)
1987	nominal	179	(179)
1988	nominal	217	(217)
1989	535	811	(276)
1990	20	558	(538)

Other activities

Expenses for all other Society activities – Membership Services, Public Information, and General Administration overhead – exceeded income by

Treasurer cont'd

\$139,000. This reduced the operating surplus to \$527,000, which together with net investment income of \$391,000, accounted for the \$918,000 record contribution to surplus.

These other activities are principally funded by membership dues. Dues now account for only 22% of total revenue, and support only 24% of total expenses for the Society. These percentages have shown a declining trend that will continue into the 1990s.

Membership equity

As of last July 31, membership equity stood at \$3,438,000, or about 28% of expenses in the proposed budget for the fiscal year 1991.

A complete report of the Society's finances and an audited statement from Ernst and Young are published in *Transactions*. They have been reviewed by the Administration and Finance Committee and the Executive Committee and approved by the Board of Governors.

Over the past year, the Administration and Finance Committee has worked closely with the Society office staff and the Vice Presidents responsible for E&E, meetings, seminars and symposia to develop schedules of fees that will keep these activities self-supporting and provide the margins necessary for their appropriate contribution to membership equity. In addition, the Committee made a number of recommendations to the Board regarding the funding of research and an appropriate policy for treating surplus.



After four years as Treasurer, Mike Cowell (right) turns over responsibilities – and his bow tie – to Mike Winn.

Dues

At the Board meeting in October, the Administration and Finance Committee presented a 1991 budget of \$12.1 million, largely supported by growth in income from self-supporting activities. However, continuing with our efforts to more equitably balance revenue for membership activities with expenses, the Committee recommended what we believe is an extremely modest increase of approximately 4% in dues for 1991.

These recommendations were approved by the Board to produce a budget with a projected excess of revenue over expense of \$205,000 for the fiscal year ending July 31, 1991. 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.

While the five-year projection shows revenues staying ahead of

expenses through the mid-1990s, we expect to make further adjustments to maintain an appropriate balance between self-supporting functions and general membership activities. The Committee will direct continued attention to research and publications to try to bring these activities closer to operating on a self-supporting basis over the long run.

In closing, we extend our thanks to John O'Connor, Executive Director, and to Bill Kepraos, Director of Finance, and the other Society office staff for their dedicated efforts in managing Society funds to best serve all members.

It has been a privilege to have served the Society as Treasurer for the past four years, and it is with pleasure that I turn over my responsibilities to Mike Winn, who I know will do an excellent job in the coming year.

Membership Statistics		November 1, 1990	
Membership, Nov. 1, 1989			
Fellows	6,241		
Associates	5,543		
Total		11,784	
Increase through:			
Examination		818	
Election		38	
Reinstatement		17	
Decrease through death or withdrawal			
		(198)	
Membership, Nov. 1, 1990			
Fellows	6,460		
Associates	5,999		
Total		12,459	

1989-90 Year in Review:

Building bridges that span the globe

The Society of Actuaries Statement of Purpose adopted in 1982 and printed in the *Yearbook* is the foundation on which the Society's activities are based. The Statement relates to the objectives in the Constitution:

To advance the knowledge of actuarial science and to promote the maintenance of high standards of competence and conduct within the actuarial profession.

Each year, however, the way in which the purpose is carried out may be distinctly different, depending on the individuals that are in Society volunteer leadership roles, on the dynamics of the business environment, and on the needs of the members.

Observing the Society of Actuaries this past year, one can recognize characteristics that are common to many of the programs adopted during 1989-90: the expansion of activities beyond the "actuarial circle," progressive actions that reach out to other entities, and an effort to make connections and lay the groundwork for the continued evolution of the actuarial profession worldwide.

This "bridge building" marked the forward thrust of decisions made in the 1989-90 program year. The following pages highlight some of the year's key events, many of which have implications for the future of the actuarial profession.

Building bridges ...to the world of academia

University relations initiatives

In early 1989 a Task Force on Strengthening Relationships between Universities and the Actuarial Profession began its work. Its final recommendations were adopted at the June 1990 Board meeting, and implementation of initiatives has begun for wider academic participation in Society activities and for the encouragement of university-based actuarial research.

The Society began the ongoing process to strengthen relationships between the academic community and

the actuarial profession by offering grants to institutions when a full-time academic member attains SOA Associate or Fellowship status, by creating scholarships to Ph.D. candidates with thesis topics relating to actuarial science, by waiving meeting and seminar fees for SOA academic members, and by reimbursing expenses when an academic member works on committees or appears on meeting programs. The September 1990 *Actuary* described these initiatives in detail.

Response from university presidents and deans has been immediate and enthusiastic.

"Permit me to...commend your Board of Governors for...such a forward-looking posture."
University of Nebraska-Lincoln

* * *

"You and your Board of Governors are to be congratulated on your commitment to invest in the professional development of those who will produce the actuaries for your field."
Maryville College, St. Louis

* * *

"I am delighted to see the action taken by the Board of Governors..."
The University of Calgary

* * *

"We look forward to full implementation."
Georgia State University

New Education and Research Special Interest Section

As a result of a recommendation by the Task Force on Strengthening Relationships between Universities and the Actuarial Profession, the Board approved, at its October 1990 meeting, the by-laws of a new special interest Section on Education and Research. Initial interest has been expressed by approximately 200 Society members, and the new Section will be officially established when 200 members have paid dues as charter members. This Section complements the other initiatives by further providing a forum for



The Society has received many responses from university presidents and deans supporting efforts to strengthen ties between universities and the actuarial profession.

interaction between the Society and the academic community.

Society/Nankai University Actuarial Science Program

Much discussion went into the Board's decision in January 1990 to resume the SOA-sponsored actuarial science program at Nankai University in Tianjin, China, in April. That program was suspended in June 1989 after the incident in Tiananmen Square. An article in the September 1990 *Actuary* tells the story.

Those in favor of continuing the program reminded the Board that the Society had signed a Memorandum of Understanding with Nankai University in November 1987 to assist students in fulfilling their masters' thesis requirements. Students involved in the program demonstrated a strong commitment to their actuarial studies. Some members of the Board believed the Society should honor its agreement if the teachers participating in the program could be guaranteed a safe and stable environment. Others were concerned that further political turmoil could lead to more problems, and that resuming the program glossed over the deep objections members held about the repressive activities of the Chinese government.

The issue was resolved when the Board passed a resolution at that meeting to resume the program in April, and volunteer instructors subsequently returned to Nankai to finish teaching courses. At its October

Continued on page 10 column 1

Building bridges cont'd

meeting, the Board agreed to renew the arrangement with Nankai University for another three years.

...to other organizations

Working Agreement

Over the past few years, the Society of Actuaries and the other five organizations represented on the Council of Presidents – the American Academy of Actuaries (AAA), the American Society of Pension Actuaries (ASPA), the Canadian Institute of Actuaries (CIA), the Casualty Actuarial Society (CAS), and the Conference of Actuaries in Public Practice (CAPP) – have studied ways to achieve greater cooperation and coordination. The SOA Task Force on Strengthening the Actuarial Profession recommended that these six organizations develop a "covenant," which resulted in a task force of the six President-Elects drafting a Working Agreement that contains a list of understandings among all the bodies.

Recognizing the independence of each organization, the objective of the Working Agreement is to increase cooperation toward these goals:

- Improve working relations among volunteers and staff of all organizations
- Create ways to promote internal communications and external public interface
- Provide "institutional memory" as annual changes in volunteer leadership occur
- Minimize duplication of efforts
- Provide a way to record and manage changes in these working relationships

Significant aspects of the understanding include public interface, research and education responsibilities. Each organization will encourage the actuarial profession to speak "with one voice" on actuarial issues in the public arena. The AAA in the United States and the CIA in Canada will be responsible for public representation of the profession and will designate representatives of the profession for liaison with relevant non-actuarial organizations. The SOA and the CAS will be responsible for the management of actuarial research, and for coordinating management with the CIA for research issues unique to Canada. The SOA and the CAS also are responsible for the management of basic education and examination of actuaries, with ASPA

and the CIA meeting the unique education needs of their members.

Communications between the organizations will be enhanced by sharing publications and studies and waiving annual meeting fees among the groups for presidents, president-elects and the top staff persons.

All organizations will work to develop basic actuarial principles, guides to professional actuarial conduct, and a common set of counseling and disciplinary practices. The Working Agreement encourages exploring other opportunities for cooperation in such areas as jointly sponsored meetings, continuing education credit, a common data base, minimizing overlapping committees, and financial support of services.

The SOA Board at the October 1990 Board meeting authorized its President and President-Elect to sign the Agreement. It has now gone to the other five organizations for their signatures.

...to international opportunities

Actuarial organizations in other countries

With an increasing number of Society members involved in international business activities, networking with actuaries practicing in countries outside the United States and Canada is more important than ever. Recommendations from the International Relations Committee led President Allan Affleck to represent the SOA on several foreign visits outlined in an article in the June 1990 *Actuary*.

A reciprocal exchange of publications with actuarial and related organizations in other countries has led to extensive international holdings in the Society Library. An article in the September 1990 *Actuary* tells of this collection.

The Society joined the newly formed Actuarial Approach to Financial Risks (AFIR) Section of the International Actuarial Association. AFIR held its first colloquium in Paris in April, which was reported in the September 1990 *Actuary*.

Annual meeting

SOA's international involvement during the year culminated at the annual meeting, with the theme of "International Opportunities" being carried out through innovative features and exhibits. Many panel discussions included an international expert, and 65 foreign guests from 13

countries attended the meeting. Keynote speaker, James Schlesinger, shared his views on "How the Changing International Environment Affects our Economy."

...into the future

Long-range planning process

Under the auspices of the Committee on Planning, the Society embarked on a long-range planning process this year. Analysis of professional, membership, and organizational issues is essential to that process, and such an analysis is now under way. Also being addressed in the process are a vision statement and an organizational mission statement for the SOA, general objectives, strategic directions, action plan guidelines, priorities, strategies, and implementation. The Planning Committee has targeted the March 1991 Executive Committee meeting for presentation of the long-range planning report.

...of communication

Changes in election process

In response to concerns by both leadership and membership, a task force was formed to consider changes in the election process. The task force's recommendations to invite first-ballot officer candidates and all second-ballot candidates to submit 200-word position statements and to randomly select the first name listed on each slate were adopted. A step-by-step information program through *The Actuary* (March introduction, April insert, and July/August interviews with President-Elect candidates) communicated the changes. Despite an increase in rate of return for the first ballot, member participation in second-ballot voting was disappointing. Only 42.8% of those eligible returned second ballots, the lowest level in nine years. Voting members were sent an Elections Survey, and the results are being compiled to see if further changes should be considered.

Forecast 2000

Considerable success in media coverage was achieved during the first year of the Forecast 2000 campaign to increase public awareness of the actuarial profession in North America. Managed by the American Academy of Actuaries and the Society of Actuaries with Edelman Public Relations, the Society was one of six organizations in its advisory group. The six organizations shared the



An SOA teleconference on Internal Revenue Code Section 401(a)(4) was broadcast in 25 cities across the United States.

honor of receiving the Thoth Award from the Washington, D.C., Chapter of the Public Relations Society of America for the best institutional public relations program in 1989. Articles in the November 1989 and July/August issues of *The Actuary* detail this program. The Board agreed at the October 1990 meeting to continue SOA participation in the campaign for 1991.

Society public relations

The SOA Public Relations Committee developed a comprehensive public relations plan for the Society during 1989-90. The general objective is to increase the influence, prestige, and public recognition of the Society. Major components of the plan include objectives for recruiting, publicizing meetings and seminars, and promoting and publicizing research.

Publications

Each major Society publication is managed by an editorial board to produce the flagship publications — *Transactions*, Committee Reports, the *Record*, *The Actuary*, the *Yearbook*. The Committee and Section Reports booklet has been replaced by this annual report issue of *The Actuary*. The *Record* of the 1989 New York annual meeting has been completed. Volume 41 (1989) of *Transactions* with 13 papers was published. A new publication developed by the Publications Policy Committee, the *Publications Index*, provides a subject, author, and title index of Society publications released in 1989. The September issue of *The Actuary* gives details on the annual *Index* and credits those responsible for the first issue.

...of knowledge

Examination and Education

Dramatic growth in the number of candidates entering the examination system over the past few years continued this year. In just the past year, the number of candidates passing the first exam increased 10%. The number of new ASAs jumped 17% from the previous year, adding approximately 850 Associates to the membership. With record numbers writing exams (18,600 were registered for May), the number of examination centers have increased from 200 in 1987 to 250 in 1990.

The addition of a final requirement in the process of becoming a Fellow was implemented this fall, with 129 new FSAs emerging from the Fellowship Admissions Course (FAC). The November issue of *The Actuary* featured this 2½ day session focusing on professional ethics and integrated problem solving. Held in Toronto and Chicago, the FAC was attended by candidates who had completed their last Fellowship examinations in May. The FAC required several years of planning and hundreds of hours of effort from more than 30 volunteers, several paid professionals and SOA staff, who developed the case studies and administered the sessions. Student evaluations were favorable and their feedback will be used to refine future FACs.

The August 1990 Intensive Seminar on Applied Statistical Methods was held at three sites and was attended by 227. This intensive

seminar program began in August 1989 at one site for 83 candidates. An additional session in January 1991 will be held for 35 candidates who could not get into the August session.

The E&E volunteer workload is being eased by having American College Testing (ACT) develop examinations for Courses 120, 130 and 135, with volunteers continuing to review the proposed exams. Other E&E work in progress includes elective investment courses, an Intensive Seminar on Risk Theory, and an analysis of the time candidates spend passing exams required for ASA designation (travel time) in the Flexible Education System (FES) environment compared to pre-FES.

Continuing Education

Part of the Society's activities focuses on the ongoing professional development of members, supported by several Society-sponsored continuing education offerings.

The 1989-90 year closed with 25 topics offered through high-quality seminars, roundtable discussions, intensive programs through the Wharton School, Section-sponsored seminars, and a Valuation Actuary Symposium, with a total attendance of 1,611 participants and 65 SOA members serving as faculty. Added to that were another 15 seminar formats offered this year through the spring and annual meetings. A teleconference on Internal Revenue Code Section 401(a)(4) also was offered in 25 cities across the United States, and a seminar focusing on "Management: Disney Style" was held just prior to the annual meeting in Orlando.

The first three Professional Actuarial Specialty Guides (PASG) were developed and distributed this year. The goal is to produce 25 of these "road maps," guiding actuaries through readings in all major actuarial specialties, with annual updates. The September 1990 *Actuary* contained an article on PASGs.

A 15-minute audio-visual presentation (slides and script) was developed to assist members who are speaking on continuing education activities of the Society.

...to the basics

Actuarial principles

In March 1990, the Society's Committee on Actuarial Principles

Building bridges cont'd

published a discussion draft on fundamental principles which was made available to all members of the actuarial profession. The intent of the discussion draft was to solicit comments to prepare an exposure draft on those principles that underlie the practices of actuarial science.

Unlike standards, principles are not intended for use in any disciplinary process. The discussion draft related to "fundamental" principles, i.e., principles that are broad and well established, and are not expected to change unless actuaries' understanding of basic phenomena change.

Substantial comments were received on the discussion draft, and the fundamental principles document is being revised accordingly. A new document is expected to be released as an exposure draft in the first quarter of 1991.

The Society's Board and Executive Committee have endorsed a joint effort with the Casualty Actuarial Society in developing actuarial principles, and discussions with the CAS have been initiated. If a joint approach is adopted, the revised discussion draft will not be exposed until CAS input can be received.

...with expert advice

The SOA Committee on Social Insurance prepared an independent commentary on the April 1990 Trustees' Reports for U.S. Social Security and Medicare which stated that, while both Old-Age, Survivors and Disability Insurance (OASDI) and Hospital Insurance (HI) passed the committee's test of short-range actuarial soundness, both failed the long-range test. The committee believed that it is useful to describe the magnitude of the long-range problem in various ways and that the public should be more aware of the shortfall that is projected to continue after all the baby boomers have retired and the trust fund is depleted. The committee did not advocate specific policy changes to meet that shortfall, but stated that it is likely to be met by a package of changes similar to those enacted into law in 1983. A full report appeared in the October 1990 *Actuary*.

As individuals, Society members served on a panel of technical experts which reported to the 1991 Advisory Council on Social Security on the OASDI financial projections. Society members are currently serving on a

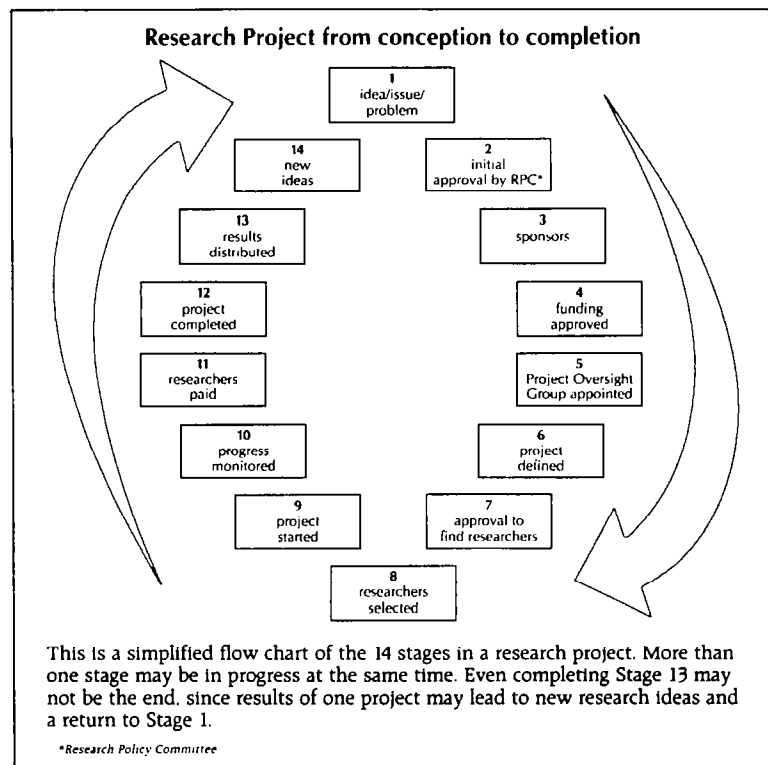
similar technical panel to review HI financial projections.

...from the questions to the answers

Research projects

Over the past few years, the Society has created an issues management process which identifies research opportunities and prioritizes them for funding, and a management process which approves research projects and creates Project Oversight Groups to guide their progress. Because of this structure, the number of research projects have increased substantially in the past year, with many projects now approaching completion. The flow chart shows the 14 steps followed for each research project.

One project in particular has become a very important and high profile effort for the actuarial profession and the insurance industry. The Credit Risk project (officially named "Analysis of the Correlation of Asset Quality and Credit Risk by Category of Insurance Company Investment") is focusing on the default experience of private placement bonds and commercial mortgages, two categories of investment not studied before in the aggregate. In addition, the definition of default has been modified significantly to capture total economic loss. This project involves



extensive interaction with investment professionals. Data tapes are being received from participating companies and, as of November 1, the analyses are under way.

New projects being defined by Project Oversight Groups include:

- "Options Pricing Models as Alternatives to Cash Flow Testing"
- "Actuarial Aspects of Currency Fluctuations"
- "Experience with Junk Bonds"
- "Health Data Base"

Other projects with data collection well under way are:

- "Lyme Disease"
- Joint SOA-LIMRA pilot study, "Interest Sensitive Cash Flow and Analysis," on lapses of SPDA products as related to interest rates
- "Validation of Medical Tests"

Researchers are in the analysis phase on:

- "Possible Application of Fuzzy Sets Methods in Risk Analysis"
- "Adverse Selection Models," for research on the effect on duration of small group medical insurance claims

Projects progressing, with some nearing completion, are:

- "Actuarial Aspects of Continuing Care Retirement Communities," to provide a model for better understanding of demographic information required for sound valuations of CCRCs

- "Bond Data Base Feasibility Study," to explore the concept of a bond data base to capture information on bonds traded by insurance companies
- "Options and the Management of Financial Risk," a book to be published by the Society
- Pilot study on "Claims Deterioration," focusing on major medical insurance

Completed this year and distributed were a second volume of "Economic Statistics for Pension Actuaries" and an updated "References for Pension Actuaries."

Experience Studies

Progress was made this year in publishing the experience studies on a more timely basis. The *1985-86-87 Reports of Mortality, Morbidity and other Experience* and the second edition of a two-volume *Medical Risks* book have been completed. An article in the February 1990 *Actuary* details the contents of the *Reports*.

New experience studies currently under way are in structured settlements and group life mortality, and retirement plans.

Actuarial Research Clearing House (ARCH)

The 1990.1 edition of ARCH has been printed and distributed, marking the first time in several years that the publication has been current. A second 1990 edition is being prepared.

Library

The Research Library continues to show increased usage by members for loans of materials, literature and reference searches, and reference requests. The preservation and restoration of the archives continue, with 26 old books and pamphlets having been restored.

Sections

It has been 10 years since the Society authorized forming special interest Sections. Activities of the eight Sections have increased during the year, with Section-sponsored seminars and seminar formats and program tracks at meetings. Each Section has an active newsletter, and several have funded research projects and sponsored prizes. An update on Sections was in the June 1990 *Actuary*. The formation of the new Education and Research Section is under way.

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

- ▶ Approximately 66% of members maintained on the SOA computer system had changes to their files during the year, requiring more than 8,000 entries by Information Services staff.
- ▶ Fax numbers and telephone extensions were added to the membership data base and will appear, along with Section membership, in the 1991 *Yearbook*.
- ▶ The SOA Finance Department, Exams Department, and the Information Services Department automated the disbursement of exam overpayments and refunds, so students would receive their reimbursements more quickly.
- ▶ In cooperation with the Casualty Actuarial Society, SOA's Subcommittee on Minority Recruiting awarded scholarships totaling \$35,000 to 30 university students for the 1990-91 school year.
- ▶ The new publication, *Index to 1989 Publications*, received an "Award of Excellence" from the Chicago Chapter Society for Technical Communication in a competition; Volume 42 of *Transactions* received an "Award of Merit" in the same competition which recognizes excellence in print communications.
- ▶ The Continuing Education/Meetings Department arranged for 21 meetings/seminars/symposiums in 59 different cities, attended by 5,147 people.
- ▶ The SOA library now has 3,100 volumes, which include 189 serials. In the period from October 1989 through September 1990, staff circulated 349 volumes to persons and other libraries, conducted 102 literature and reference searches, and fielded 2,086 reference requests.
- ▶ Society staff numbers 65. During the year, 7 new employees filled new or vacant positions, and 4 employees left the Society. Staff celebrated 3 births and 2 marriages while carrying out 1989-90 Society business.
- ▶ From one desk in the E&E area, more than 25,000 requests for recruiting literature, exam applications, and exam catalogs were put together, packaged, and mailed. About 5% of those were large orders (a box or more).
- ▶ Food left over from SOA meals at the annual meeting was donated to feed the hungry and homeless in the Orlando area. In the future, the Society will be working with hotels where spring and annual meetings are held to make similar donations in those cities.
- ▶ The number of candidates registering to write their first actuarial examination in 1990 exceeded 9,000, an increase of more than 100% since 1985. A similar increase is reflected in the more than 4,400 candidates who will have passed Exam 100 in 1990.
- ▶ The highest score by undergraduate students for Exam 100 in the May 1990 examinations was that of Joel Rosenberg, a student at Hall High School in West Hartford, Conn., who received \$200 for this accomplishment. In the past 30 years, only three high school students have claimed the top Exam 100 prize, and Hall High School has produced two of those winners.
- ▶ Vancouver SOA member Bob Blake recently took all in Jeopardy's "Tournament of Champions," where he won \$100,000. Added to the \$82,501 he won on the TV game show in 1989, Blake is Jeopardy's biggest winner to date.
- ▶ This past Thanksgiving, Hanukkah, and Christmas the SOA staff, working with a local food pantry and inter-city shelter, ran a food and holiday gift drive for the underprivileged in the Chicago area. The result was more than 1,700 pounds of food and more than 200 gifts to inner-city children. These gifts were the only presents these children received last holiday period.

SOA annual meeting breaks record

▶ Keynote speaker James R. Schlesinger gives insights into the international scene, sharing his thoughts on the impact on the American economy of European unity and foreign capital.



▲ SOA President Allan Affleck, right, congratulates prize winners Roy Goldman, left, and Mark Litow, middle. Goldman received the L. Ronald Hill Memorial Prize for his study note "Pricing and Underwriting Group Disability Income Coverages." Litow earned the SOA Annual Prize, awarded for the best paper published in *Transactions*, for his paper "A Modified Development Method for Deriving Health Claim Reserves," published in Volume 41 (1989).



▲ Enjoying the festivities at the annual meeting international reception are (from left) Catherine Prime, President-Elect of the Institute of Actuaries of Australia; James Schlesinger, keynote speaker at the annual meeting; SOA President Allan Affleck; and Harry Garber, President-Elect of the American Academy of Actuaries.



◀ Video enhancement, which projected a 15-foot-high TV image of speakers onto a screen, allowed even attendees sitting in the back row to view speakers during the annual meeting general sessions.

Attendance soared well above any previous records at the Society's 1990 annual meeting held in Orlando October 14-17, 1990, with participants totalling 1,793. The combination of location, wide variety of activities, and focus on "International Opportunities" made for one of the most successful Society meetings to date.

Meeting participants chose from almost 50 sessions, many with international experts as panel members. Keynote speaker James R. Schlesinger, former Secretary of Defense and Director of the CIA and currently Senior Advisor to Shearson Lehman Hutton, gave his views on how the changing international environment affects the business world.

After the first day of seminars and workshops, attendees were treated to a reception at Pleasure Island with a night of music, food, and live entertainment.

The international flavor was carried through in a variety of exhibits and events. A special slide presentation which featured general business practices, customs, actuarial information, and music of 10 different countries was shown during a luncheon where ethnic foods were served. A table of materials from actuarial organizations throughout the world, an historical display offering a lithograph of the Staple Inn in London, and educational exhibits, including one showing the meaning of hand and facial gestures in different countries, added to participants' knowledge.

SOA volunteers: the architects who built the bridges

Hundreds of Society of Actuaries members each year contribute to the success of its programs in many different ways. Those who serve on the Board of Governors and on committees, subcommittees, and task forces spend countless hours working to advance the goals of the Society and the actuarial profession. Below are listed those who accepted leadership roles as members of the Board of Governors. As for all the others who worked in a myriad of other capacities, be assured that your work is appreciated. You know who you are.

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