



SOCIETY OF ACTUARIES

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

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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

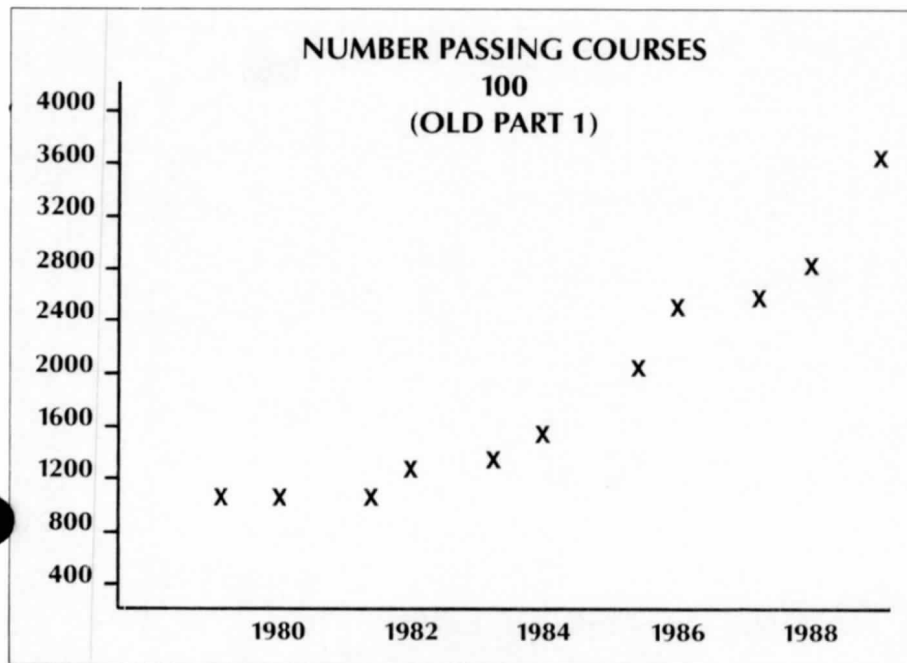


CHART 1

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

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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.