# The Actuary

SOCIETY OF ACTUARIES 1994-95 YEAR IN REVIEW

# The Actuary

The Newsletter of the Society of Actuaries

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Editor responsible for this issue




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## In this issue



# About the cover

The annual meeting in the historic city of Boston was the culmination of the 1994-95 program year focusing on ethics and professionalism. President Barnet (Bob) Berin introduced this theme when he took office in October 1994 and carried it through with professional ethics speakers and follow-up professionalism seminars at all three 1995 spring meetings.

At the Boston meeting, the city's most famous native-born son, Dr. Benjamin Franklin (portrayed by reenacter William Meikle), welcomed participants. Besides his historic connection to the city, Franklin was invited to appear because of his writings and correspondence documenting his study of mathematical principles, views on economic and population issues, and endorsement of the merits of insurance. Franklin was referred to in *Our Yesterdays*, the history of the actuarial profession in North America, as being nominated to be the "patron saint" of actuaries. In a 1943 essay, "Something about Actuaries," Henry Jackson recommended Franklin's writings to "budding actuaries" because his "interests and achievements are more closely allied to an actuarial career than most men realize." Jackson wrote, "I know of no single brief document which grasps more firmly the root of...social security than his letter to Francis Maseres concerning old age retirement in Holland. ... And, who but Franklin would still have been young enough at 82 to suggest on receiving a friend's account of a tornado in France that the proper answer to that and similar calamities should be the invention of a system of crop insurance?"

In his remarks to the annual meeting participants, Franklin carried through on this year's theme of ethics and professionalism. "Don't be too narrow in your perception of ethics and professionalism," he warned. "If it only serves the profession, you shall fall short of your humanity." He spoke about the finite world's resources in infinite time. "If you actuarials are those who collect numbers, statistics, trends and resolve problems, there is a problem for you. What will your grand, grand, grandchildren say that you have done for them?" He urged support of the Society of Actuaries Foundation in its charge to use actuarial skills in research and education addressing important societal issues. "Your intelligence and abilities are great and can be put to the uses of mankind. ...Consider now the larger world. Do not narrow your vision."

# January Board meeting open to members

Interested Society of Actuaries members are welcome to attend the Board of Governors meeting January 9, 1996, at the Stouffer Renaissance Hotel in Atlanta. Minutes of Board meetings are available on request. For more information on the meeting and minutes, call the SOA office at 708/706-3500.

## Membership Statistics November 1, 1995

**Membership, Nov. 1, 1994**

| | |
|---|---|
| Fellows | 7,445 |
| Associates | 8,367 |
| Total | 15,812 |

**Increase through:**

| | |
|---|---|
| Examination | 1,151 |
| *Election | 17 |
| Reinstatement | 63 |

**Decrease through death or withdrawal** ............ 259

**Membership, Nov. 1, 1995**

| | |
|---|---|
| Fellows | 7,716 |
| Associates | 9,068 |
| Total | 16,784 |

**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.*

PRESIDENTIAL ADDRESS

# Looking forward

*by Barnet N. (Bob) Berin*
*Address at Annual Meeting*
*October 17, 1995*
*Boston*

During the last two years as president-elect and as president, I have tried to act on your behalf and move the Society of Actuaries (SOA) forward, by changing it from an inward-looking to an outward-looking organization. As this two-year period closes, it seems appropriate to highlight the initiatives undertaken to move in that direction. While self-appraisals can be dangerous, I believe the following significant projects and activities will enhance a broader role for the actuary in the future. Here are some highlights of my involvement.

### Macrodemographic model

The first is the development of a macrodemographic model. This is an area where the actuarial profession can make a significant contribution to society in general and to its own future. A research project will be underway shortly to determine the feasibility of developing a model of the total U.S. population by city, state, and region.

This model should include all aspects of demography and reflect the employed, unemployed, and those covered by health insurance or private pensions, in order to answer quantitative questions raised by the government's executive branch, particularly about uncovered groups. This model could be adapted to reflect any local or national series of time payments, such as unemployment and welfare.

### Social Security

Social Security is another area where the actuarial profession can make a major contribution. Too much has been written about Social Security that is misleading to the American public. To help set the record straight, a Social Security education initiative will soon be undertaken by the SOA Foundation.

As Walt Rugland briefly outlined yesterday, its purpose is to provide objective information about the Social Security system — past, present, and future — and what some of the options are to keep it healthy. The Foundation is currently exploring the possibility of working with various corporations on this important project.

### Actuarial Circles

Actuarial Circles is another program started last year as a grassroots effort to encourage actuaries to lend their expertise to important issues being discussed in the media. The SOA has held briefings on how to approach and work with the media. To date, almost 300 members have become part of the Circles network. Their activity has focused on writing letters and meeting with reporters on subjects ranging from Social Security and Medicare to tax issues. Circles members benefit personally by gaining communications skills, and the profession benefits by having knowledgeable actuaries step forward to provide an actuarial perspective on appropriate issues.

### Matching resume service

A fourth program, now about 1½ years old, is a no-fee employment service for unemployed actuaries and students with more than 100 credits. Employers send in job listings with their requirements to the SOA. These job listings are matched against resumes on file. Matched resumes are forwarded to companies for their follow-up.

Right now, we have about 225 positions listed and about 200 resumes on file. To date, 165 members who were listed with the resume service have found positions, with a fair number of those being filled at the Fellowship level. The service is currently receiving about 20 new listings a month, with some listings coming from nontraditional employers in the financial field.

In addition, for our unemployed members, there is a deferment/waiver of dues program, with no repayment required, as well as waived meeting and continuing education fees.

### Investment mathematics

The fifth subject, one I especially wish to emphasize, is the role investment mathematics will play in the actuarial profession. This subject goes to the heart of what an actuary is and touches on several important aspects of the profession.

We all realize that the profession's rate of growth has slowed. Most of it was fueled by the post-World War II increase in consulting firms specializing in employee benefits. This growth flattened about five years ago due, in my opinion, to needlessly complex and costly IRS and accounting rules as well as a slowdown in the economy.

For the first time since the 1930s, our profession has experienced unemployment, even though it's a low 0.7%. Additionally, those entering the profession are finding a difficult job market. I don't know whether these are temporary or permanent circumstances, but I do know we had better act on them.

At the same time that we are experiencing a change in our employment, it has become clear that newly created instruments in the investment field are well-suited to the talents of actuaries. In fact, actuaries have been moving into this field. Today, more than 150 are working for investment bankers and advisors, and one of the leading experts on derivatives in the United States is an actuary.

**I have tried to...move the Society of Actuaries forward...from an inward-looking to an outward-looking organization.**

The investment field presents an opportunity for the actuarial profession, but to capitalize on it, we need to train our students by adding material to the syllabus that is rich in higher investment mathematics and mathematical modeling. This will not be easy, but the Education & Examination (E&E) Committee is taking the beginning steps, and I support their changes for the future. And, thanks to the combined efforts of Lincoln National Corporation and the SOA Foundation, an investment mathematics textbook will be published in 1996. We have a top-notch editor and an excellent team of authors.

Every SOA member will receive a complimentary copy of this textbook, which will fill an important need for actuaries to better understand current problems in finance. This book will help actuaries apply this new knowledge in all practice areas and in nontraditional areas as well.

I believe the investment field will open up for actuaries, much as employee benefit consulting did in the past, and provide interesting and rewarding careers. We must, however, increase our ties to the investment community.

Additionally, we must further expand the investment specialty in our E&E syllabus, ensuring that it is rigorous and remains current. What better way to do this than by asking the investment community to review our syllabus and suggest modifications? This would demonstrate our commitment to develop and maintain an excellent knowledge base, and it would also indicate that the actuarial profession is producing competent actuaries who can contribute to their business.

There are those who say the actuary's role is largely managerial and not necessarily quantitative. However, I believe that our roots are technical and that any sustained emphasis on non-quantitative approaches is dangerous to our profession's survival.

On any major issue, the actuary should be able to quantify the problem, even if it is no more than a cost/value statement based upon liberal, and then conservative, assumptions. Responding qualitatively to problems can be impressive and may generate much useful material, but in the final analysis, this kind of work need not be done by an actuary. Without quantifying our work, we can lose our place and, most important, our direction. Advanced investment mathematics is an opportunity our profession should not miss.

**SOA Foundation**

Several times now, I have mentioned the SOA Foundation. As its first chairman, I helped define the mission and its direction. Like all of you, I wish the Foundation success, since it will affect the future of the actuarial profession.

*President Bob Berin (right) participates in the first Actuarial Circles briefing in Chicago. American Academy of Actuaries Associate Director of Communications Ken Krehbiel (center) offered the Academy's resources and SOA PR Specialist Linda Heacox (left) led the session on how to deal with the news media.*

**I believe our roots are technical....Without quantifying our work, we can lose our place, and most important, our direction.**

Now let me discuss three observations I've made during this two-year term.

**SOA accumulated goodwill**

First, I'm proud to say the SOA has a striking reputation. I have traveled a fair amount these last two years, and I can assure you that the SOA is highly regarded and respected all over the world.

Even so, in the United States, we do not capitalize on our reputation by testifying before such bodies as the IRS and congressional committees. While Article X of our Constitution is an impediment, the SOA Sections could be doing more, and they need to be encouraged to tackle such opportunities. We do support the American Academy of Actuaries in its efforts, and as we work together, it's clear that our objectives focus on advancing the profession at large.

**The challenge of being an international organization**

Second, I've become more aware of the SOA as an international organization. Students are taking our exams in 15 different countries. The largest exam center is in Taiwan, with almost 400 candidates in the last exam cycle. Hong Kong and China also had large turnouts.

However, in Third World countries, access to our education system is frequently difficult. For example, our examination fees are beyond the financial reach of most students; our FSA courses reflect U.S. or Canadian practice so that many students stop at

*(continued on page 5)*

## Presidential address (continued)

the ASA level; and completion of the Fellowship Admissions Course requires students to be present at a U.S. or Canadian location. Many are unable to meet the travel expenses. We have an excellent International Committee studying these issues, and I urge it to move forward with recommendations.

### Attendance of observers at Board meetings

The third issue is that of observers at Board of Governors meetings. "Acting on behalf of the members" has always been important to me.

Some years ago, I was responsible for *The Actuary* listing the date and place of the Board meetings to let members know they were welcome to attend as observers. Unfortunately, only a few members have attended these meetings over the years.

I believe that members need to know what transpires at Board meetings beyond the brief published summary of Board actions. We have all made a considerable investment in years of study to become members, and I believe we need to position ourselves to better facilitate two-way communications.

To say that Board members are the representatives of the membership-at-large misses the point. This is no ordinary Board, and we are no ordinary membership.

*President Berin and wife Diane receive several gifts, including the crystal gavel, signifying the end of his year in office. Berin transfers the office of president to Sam Gutterman (right) at the Boston annual meeting.*

To help facilitate this communication, I suggest that Section chairpersons assign Board delegates from their Section. The delegates would rotate, so that two or three Sections would regularly send representatives to each Board of Governors meeting. These delegates can then report on discussions of particular interest to their Sections through their newsletters, their Section councils, or Actuaries Online. In addition, a Section delegate may be invited to attend when an agenda item directly affects the Section's special interest.

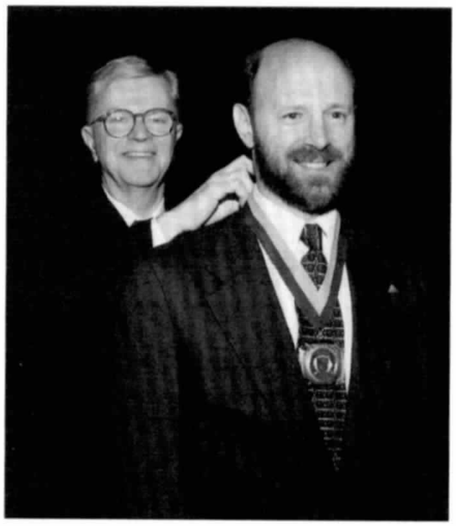
If we don't do something like this, these meetings in effect become closed to members, and significant changes may come as surprises. Granted, highlights of the meetings are published, but the debates leading up to Board actions are not.

It is important for members to be aware of the rationale behind decisions as well as individual Board representatives' views on a wide range of subjects, since these representatives frequently become vice presidents and presidents of this organization. The SOA Board is not a typical board in the conventional sense. Members need to know what transpires, sometimes in considerable detail.

### Closing comments

Now, a few final comments as I end my term as president.

I have met many members these past two years, and the most common question they ask me is, "How are you doing?" The answer has always been, "Just fine." Not only is this job a great honor; it is interesting and responsible, providing a chance to influence the future of the profession.



Two important features make it especially rewarding. First, the SOA staff support is excellent, first-rate by any standard. Second, the SOA, over its history, has built up enormous goodwill which has only been partially tapped. This goodwill, both here and overseas, makes the job of president easier.

We would not be the Society of Actuaries if not for the willingness of members to volunteer for more than 120 committees. Currently, about 1,400 members are on SOA committees. We have never lacked for volunteers, and this has been a tremendous resource. We owe them a lot, but they are us.

Most of us have benefited from involvement in the Society by meeting people with similar interests who also have been willing to contribute to the profession's future. If you have not already done so, I hope you become involved with the SOA and stay involved.

Over the last twelve months, the theme of our meetings has been professional and ethical responsibilities. Beyond the technical challenges we face, there is the wider responsibility of doing the job right and being responsible, through our individual actions, to preserve not only our own personal integrity but to preserve and enhance the integrity of our profession as well. I hope I have heightened your awareness of this important issue by repeating this theme.

More than occasionally in actuarial work, we are able to do something that helps an individual or employees or, on a wider scale, contributes to society in general. I have always been grateful for that.

Thank you for the opportunity of being your president.

# Annual treasurer's report

*by William Carroll*
*SOA Vice President/Secretary/Treasurer*

The Society of Actuaries continues to be in a sound financial position. Member equity remains significantly above target, and net operating income is again very close to a break-even budget, indicating financial strength and sound management. The results on our management basis of accounting for the fiscal year ended July 31, 1995 (FY 1995) are as follows:

| | Amounts (In $1000's) |
|---|---|
| Income | $ 14,111 |
| Operating Expenses | 14,100 |
| Net Operating Income | $ 11 |
| Non-operating Expense | 224 |
| Increase (Decrease) in Member Equity | $ (213) |
| Member Equity as of July 31, 1995 | $ 5,937 |

Our management basis of accounting differs from our GAAP basis in only one regard. We account for research projects on an "as committed" rather than an "as paid" basis, a practice more conservative than GAAP. This helps manage our research program, which has projects extending over many years. Included as non-operating expenses of $224,000 are a reserve of $170,000 for Illinois sales and use taxes and a $54,000 contribution to the SOA Foundation. The tax reserve reflects a proposed assessment for taxes for the period of July 1981 to December 1994. The Society believes that, as an educational institution, it is exempt from such taxes and is contesting the proposed assessment. The contribution to the SOA Foundation represents the initial draw against a $500,000 matching contribution commitment. This is in addition to the $500,000 contributed last year as seed money.

The Board of Governors has established a target for year-end member equity of 25-30% of budgeted expenses for the following year. The member equity of $5.937 million represents 38.9% of the budgeted expenses for the current fiscal year. Not included in this amount is $1.023 million of surplus of Special Interest Sections and other restricted funds. We are fortunate to have such a strong financial position as we enter a period of fundamental change in our basic education and examination system and unprecedented growth in research.

The complete GAAP Financial Statements and the Independent Auditor's Report of Selden, Fox and Associates, Ltd., will be published in the *Transactions of the Society of Actuaries*. They have been reviewed by the Finance and Audit Committee and approved by the Board of Governors.

### 4 budget segments

Last year, the Board of Governors approved a new approach to its budgeting processes. For financial management and budgeting purposes, the operations of the SOA are broken down into four service segments:

1) basic education
2) continuing education
3) research
4) member services, general overhead, and other activities

Program activities (basic education, continuing education, and research) are to break even after certain previously defined revenue-sharing allocations. The fourth segment — member services, general overhead and other activities — are to provide the budgeted addition to member equity, if any. The 1995 budget was adopted, and the year was well underway before the new process was finalized. Nevertheless, after the revenue-sharing allocations, the three program activities combined contributed a $52,000 surplus. On the revised basis, the fourth segment ended with a $41,000 deficit, leaving an operating surplus of $11,000.The SOA was able to achieve this surplus while absorbing $269,000 in direct and start-up expenses of the SOA Foundation.

### 5-year forcast

For the current fiscal year (FY 1996), the SOA has established a budget with revenues and expenditures of about $15.2 million, a net operating deficit of $41,000, and break-even operations for each of the next four years. This five-year fiscal plan reaffirms our commitment to provide the operational expenses for the SOA Foundation and continue our current level of program activities and member services. It also recognizes that we cannot expect continued growth in the number of persons taking examinations. Consequently, regularly scheduled fees and dues increases are forecasted over the five-year planning period. The Board approved the 1996 dues be increased to $290 for all Fellows and all who became members more than four calendar years ago. Dues for Associates who became Associates less than five calendar years ago will be increased to $145. If these operating results are achieved over the next five years, member equity at the end of the fiscal year 2000 will still exceed 25% of the forecasted expenses for fiscal year 2001.

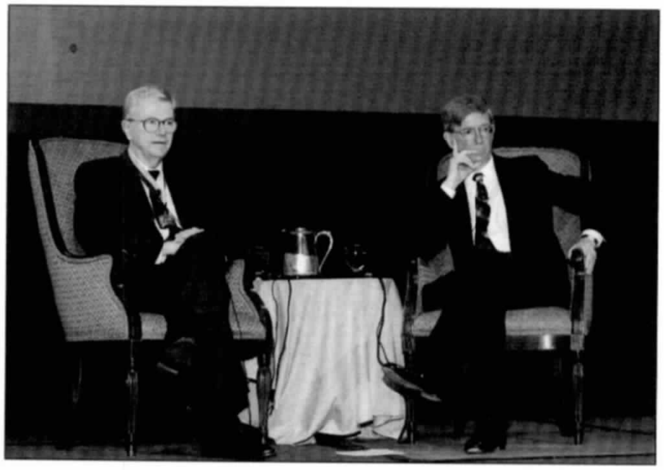
# Boston annual meeting is revolutionary

History came to life in Boston at the Society of Actuaries annual meeting October 16-18, 1995, with characters from the American Revolution personifying the rich heritage of the founding of American society. And, history was made as 68 "founders" became Charter Investors in the SOA Foundation, which is creating a revolutionary way to use actuarial capabilities to contribute to the resolution of societal problems.

Keynote speaker George Will, nationally syndicated columnist, shared his views on societal problems with 1,500 attendees with his address on "Public Affairs, Public Policy, and American Society." He said that the United States was "experiencing something without precedent in urban history — broadscale social regression in the midst of rising poverty."

More than 150 continuing education sessions on topics for all actuarial practice areas rounded out the three-day meeting.

*"Hear ye! Hear ye!" from the town crier called the 46th general assembly of the Society of Actuaries to order.*



*President Bob Berin (left) and keynote speaker George Will (right) take questions from the audience after Will's provocative speech on what he called the "crisis of the welfare state" in the United States and Canada.*

*The Sudbury Ancient Fyfe and Drum Companie led the salute to the U.S. and Canadian flags.*


*Kay Branz, director of development and marketing for the SOA Foundation, explains the Charter Investment opportunity to interested visitors at the annual meeting booth.*

*Not only did one of America's most famous diplomats, Dr. Benjamin Franklin, open the first day's session, he stayed to mingle at the reception with SOA dignitaries such as Past President Steve Radcliffe and wife Janie.*


*John O'Connor (left), executive director of the SOA headquarters in Schaumburg, a Chicago suburb, acknowledges George Will's passion for baseball with his parting gift, a Chicago Cubs jacket.*

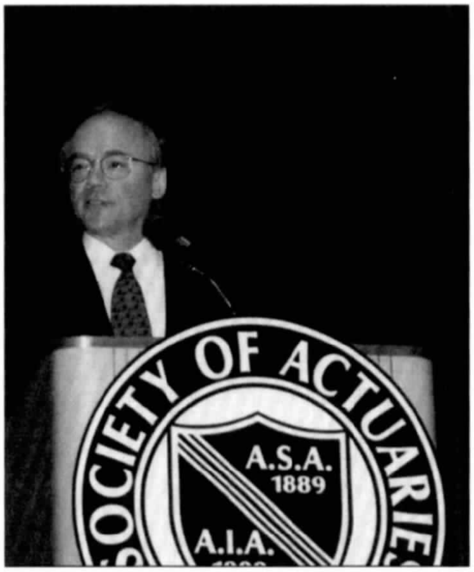

*The hat's the thing at this year's annual meeting. Rick Bergstrom (left), chairperson of the 1995 Annual Meeting Program Committee, tipped his three-cornered hat to the 23 members of his committee and the 320 speakers responsible for this program. President-Elect David Holland dons his Atlanta Brave's cap to show pride in his hometown team.*

# Spring meetings feature leading ethics experts...and trivia experts

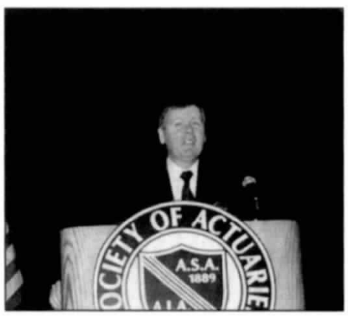
*Noted healthcare economist and University of Ottawa Associate Professor Dr. Jane Fulton, keynote speaker for the joint SOA/CIA meeting day in Vancouver, answers questions about her speech on "Working with the Forces of Change," which focused on difficult decisions about financing health care.*

*Dr. Barbara Toffler, founding principal of Resources for Responsible Management and keynote speaker on "Management Ethics for Today's Business" at the New Orleans spring meeting, relaxes with President Bob Berin (left) and Charles Barry Watson (right) after her Q&A session.*






*Gary Edwards addresses New York spring meeting participants on "Ethics at Work — Corporate and Professional Ethics for Actuaries." He is president of the Ethics Resource Center, a nonprofit that helps companies develop business ethics programs.*

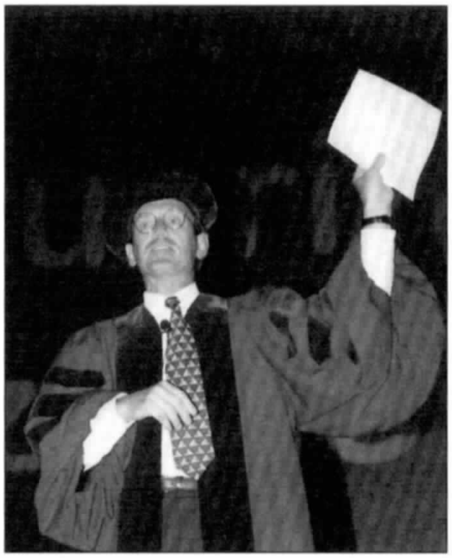


*Dan McCarthy, luncheon speaker on "Professionalism and the Actuary," tells New Orleans attendees, "If we focus at the beginning of a job on all its consequences, in the middle of a job on doing it accurately, and at the end of the job on communicating it well...I think we'll...be viewed...not as an outsider...but part of the [management] team." McCarthy, an SOA Board member, is on the Actuarial Standards Board and has been a facilitator for SOA Fellowship Admission Courses.*

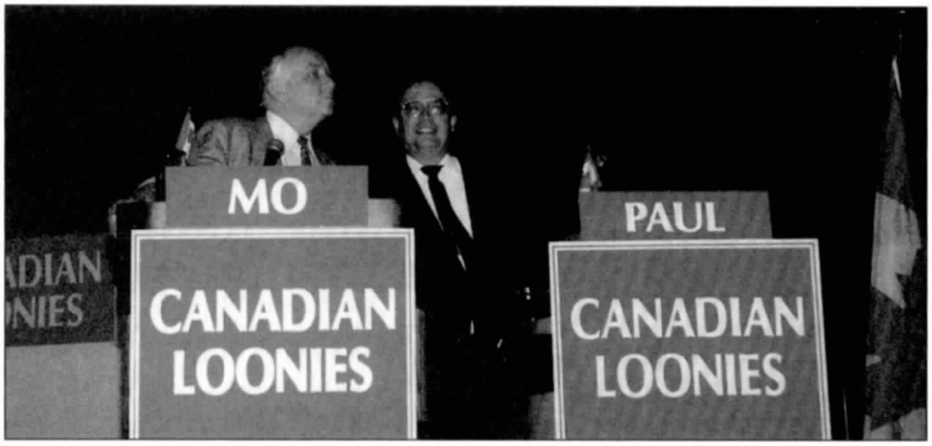
### Continuing Education attendance

| | | |
|---|---|---|
| Spring meetings: | | |
| April 6-7 | New Orleans | 559 |
| May 22-23 | New York | 665 |
| June 26-28 | Vancouver | 1,168 |
| Annual meeting: | | |
| October 15-18 | Boston | 1,495 |
| Valuation Actuary Symposium | | |
| September 14-15 | Chicago | 772 |
| 21 seminars | | 1,039* |

** Best attended: the September "Financial Reporting for Product Development" seminar in Chicago, with 101. Hottest ticket: "Maintaining Tax Deferral" seminar in Washington, D.C., with 89 attending and many others turned away.*




*(Left) Professor Harry Panjer, University of Waterloo, is MC for "The Quiz Show" in Vancouver. The U.S. Bucks (Paul Barnhart and Daphne Bartlett) narrowly edged out the Canadian Loonies (Mo Chambers and Paul McCrossan) in an entertaining actuarial trivia contest.*




*President Bob Berin (left) and Jonathan Howe (right), luncheon speaker in New York and a lawyer specializing in associations, field questions after Howe's speech, "It's a Jungle Out There; Finding the Ethical Vines." Howe said ethics is zero, because "zero has no value in and of itself, but zeros are capable of adding a great deal of value to everything they are attached to."*

*Dr. Michael McDonald (center) visits with Don Sondergeld (left) and Rob Brown (right) after his SOA keynote address in Vancouver, "Must Nice Guys Always Finish Last?" McDonald, founder of the Center for Applied Ethics at the University of British Columbia, answered this question with, "Under the right conditions, nice guys can finish first....You determine [the right conditions] by your actions with each other, with clients, and by the way you impart ethics to the next generation of actuaries."*

# 1994-95 year in review
## Ethics and professionalism for the future

Ethics, who cares? Or, ethics, who knows? Cynicism and skepticism in today's society have infiltrated the business world. Yet, actuaries often find their personal convictions pitted against the bottom line. For a profession like actuarial science, that holds the financial security of many people in its hands, the development of ethics based on highest professional standards is vital. Yet, integrating ethics with practical decision-making is a challenge.

Recognizing this dilemma led Bob Berin, 1994-95 president, to adopt this topic as his theme for the year, bringing recognized leaders in the ethics field to meetings to initiate discussions with members.

As Berin mentioned during the opening session at the New Orleans meeting, "Ethics is a very interesting thing. It's very much part of our professional lives, and we don't think about it too often. But it's very important if you think of the employee working late at night in the office with his or her light on the desk, and nobody else is in the office. They come across something that upsets them, either a missed number or a missed concept. It's what they do with that piece of information from that point that very much affects them, affects the business, and can affect the output. If the organization doesn't have a tradition of caring that much, there might be a tendency to just push it aside in the rush to get the figures out. If we want to leave you with anything, it's the thought that that employee working alone is very important. It might be you someday, and you'll have to face that."

This emphasis on ethics couldn't have come at a more opportune time. It relates closely to the number one issue facing the SOA during the past year: changing the Education and Examination system to address the core of who an actuary is and what an actuary's obligations of professionalism will be in the future.

*About 20% of nonretired FSAs have now finished their Fellowship requirements by attending a Fellowship Admission Course (FAC), which offers discussions on professionalism and ethics. Bob Beuerlein, retiring FAC chairperson, toasts those finishing their FSA requirements at the 1995 FACs. A group from Prudential celebrate: (L-R) Sharon Brody, Amanda Hammell, Lisa Shane, and Lori Lenart.*

### Educating the future actuary

A special Board Task Force on Education issued a pivotal report to all members in August. After careful study of the core competencies that distinguish actuaries from professionals in related areas, the task force concluded that a fundamental change was needed in the SOA's education system. Mere tinkering was not enough. It would take comprehensive changes to equip actuaries with essential skills and knowledge to meet future professional challenges and to remain valuable to employers.

The task force recommended, and the Board approved, certain basic principles:

- Focus the syllabus on examination of subjects covering essential elements of an actuary's education
- Provide a business context with rigor that is consistent with that of mathematical education
- Include all kinds of contingencies, not just life contingencies
- Include models from outside the insurance and pension fields

The task force report divided actuarial education into four categories: 1) preliminary — necessary but not actuarial, 2) basic — actuarial subjects that all actuaries need to master, 3) advanced — subjects that need to be mastered in a certain field, but do not change over time and are not country specific, and 4) professional development — subjects that change rapidly and/or are country-specific.

It said the SOA should test only the basic and advanced categories. The others — preliminary subjects and professional development — should come from the best available provider.

The task force brought members into the planning process by opening dialogue through the year at meetings, in interviews, and with a survey. An October 1995 article in *The Actuary* details the changes and how concerns of the members are being addressed in the design.

The Design Team, chaired by Jeff Beckley, is now working on efforts relating to the syllabus, the ASA definition, educational providers, financial implications, and the transition plan. Because of the present CAS/SOA and CIA/SOA jointly administered exams, representatives from the Casualty Actuarial Society and the Canadian Institute of Actuaries are on the Design Team. A design packet has been sent to about 180 individuals to review, and a final design plan is expected in 1996.

In other education initiatives, the strengthened requirements for the Associateship designation from 200 to 300 credits took effect in July, resulting in a large group of new ASAs, 639, finishing requirements in May .

The new Fellowship Investment Track, developed to prepare actuaries to play a major role in investment operations, was effective November 1995. It has elements of both portfolio management and asset-liability management.

**Ensuring continued relations with academics**

The academic community is important to the future of actuarial science as a source of new research and of new SOA members. The initiatives to strengthen relations with academia begun in 1990 have been successful,

*Three SOA Ambassadors attended the annual meeting: Mabini Juan from the Phillippines, Henryk Walerys from Poland, and Michelle Chong Tai-Bell from Trinidad. Tai-Bell (left), a new International Section Council member, visits with Jeff Harper (right), chair of the Actuary of the Future Section. Ambassadors are important SOA links to members living overseas.*

and the Board has reconfirmed its financial commitment to this program.

An evaluation of the Ph.D. grants program, published in the January 1995 issue of *The Actuary*, led the Board to not only renew its commitment of $50,000 annually, but also to approve more than $50,000 a year if the excess is fully funded from a source other than the general fund. This program provides $10,000 grants annually, renewable up to three times, to Ph.D. students writing theses on topics relating to actuarial science. Seven grant recipients have completed their dissertations, which are on file in the SOA library. Six others are still completing their Ph.D. requirements.

*For the first time, in 1995, actuaries from China attended an SOA annual meeting. Dr. Kailin Tuan (left), who has been involved in developing the actuarial science program at Nankai University, proudly introduces one of the first ASAs from that program, Donghai Yu, (center) to President Bob Berin (right).*

The ASA/FSA grants, awarded to a college or university that has a full-time faculty member earn an Associateship or Fellowship, have been given to 40 educational institutions over the five-year history of the program, signifying 40 new ASAs and 8 new FSAs. The Board, at its May 1995 meeting, increased the grant amount from $2,500 to $5,000 for a new ASA and from $5,000 to $7,500 for a new FSA.

A new grant program sponsored by the Committee on Knowledge Extension Research funded five projects on a wide range of topics, all involving researchers who are academic SOA members.

**Funding the resolution of future social problems**

Just over a year ago, the SOA Foundation was incorporated. It was established with an initial contribution of $500,000 from the SOA, with an additional matching grant of up to $500,000.

The Trustees, under the leadership of Chair Jim Tilley, have identified projects and begun active fund raising to accomplish it mission, which is to contribute to the understanding and resolution of present and future social and economic problems by:

- investing in innovative research, education and communications initiatives,
- using actuarial capabilities, and
- collaborating with universities, governments, industry, professions, and others with similar missions.

The Foundation's September newsletter, *foundation update*, details these projects in process:

- *Financial Economics Theory for Actuaries* textbook, under the leadership of Harry Panjer and co-funded by Lincoln National Corporation. The ten authors will include actuarial/financial experts and academics from around the globe, complemented by practitioner contributors.
- A Social Security public education campaign, developed with the SOA Committee on Social Security—Retirement Disability Income and implemented through partnerships with targeted organizations.

*(continued on page 13)*

## 1994-1995 Year in review (continued)

In addition, the Foundation has a home page on the Internet to establish a public forum and to keep members up-to-date. The address is http://www.hasc.ca/foundation.

Fund raising for these projects shifted into high gear at the annual meeting. Nearly $113,000 was donated or pledged by individuals after an appeal from SOA Resource Development Committee Chair Walt Rugland.

**Current Status**

**Foundation's Premier Campaign Led by Ian Rolland "Preparing for Tomorrow's Possibilities: the Leadership Investment"**

**Campaign Goal:** $1 million by 1998

**Individual Contributions and Pledges:**

| | |
|---|---|
| From Charter Investors | $268,600 |
| From Special Events | 40,000 |
| From Corporate Matching Gifts | 14,000 |
| Total: almost 1/3 of goal | $322,600 |
| Matching SOA grant | 322,600 |
| Total pledges & contributions | $645,200 |

### Macrodemographic model potential for major impact on future

One of the ideas introduced this year by President Bob Berin could have a major impact on future questions related to the cost of government entitlement programs, such as welfare, unemployment, and retirement income. He asked the SOA to explore how a central data source in the form of a macrodemographic model could be developed, starting from existing models. Every major existing database/model will be analyzed first to see if it would be practical to access them or to extend them into a new model.

The feasibility study on a macrodemographic model on retirement is now being conducted, sponsored by the Retirement Systems Practice Area, Pension Section, Computer Section, the Conference of Consulting Actuaries, and the American Society of Pension Actuaries.

### Experience studies process reviewed

An Experience Studies Task Force spent much of 1995 reviewing the entire experience studies process and forming recommendations to improve these studies' timeliness and value to members. Their recommendations, approved by the Board in October, led to the creation of two oversight subcommittees under the Committee on Research Coordination — one for research projects and one for experience studies. Each is responsible for budgets, plans, and management in its respective area. Other recommendations are related to assessments to businesses that fund experience studies, a review of users of these studies, selling data in electronic form, and assigning management responsibilities to the staff experience studies actuary.

A copy of the Experience Studies Task Force report is available from the SOA Research Department.

*Bob Myers (left), former SOA president and chief actuary of the Social Security Administration, steps forward at the annual meeting to become the first SOA Foundation Charter Investor at the Principal level. He hands his $25,000 check in memory of his wife Rudy to Foundation Director of Research and Education Harry Panjer (right). Many others gave a minimum of $1,000 at the annual meeting to become Charter Investors. Andover Research Ltd. and Ward Howell International gave the first unrestricted corporate contributions of $10,000 each. Almost $113,000 was contributed or pledged at the meeting.*


*Attendees of the International Actuarial Association Congress in Brussels, (L-R) Bill Bugg, Robert Dymowski, Walt Rugland, and Mo Chambers, discuss the formation of the International Forum of Actuarial Associations in a Boston annual meeting session.*

### Health care studies important to future reform

Many recent health care reform proposals include a system of risk adjustment payments among health plans to remove the financial incentives for health plans to selectively enroll only low-risk individuals. The SOA's Risk Adjustment research project recently completed is especially timely. The results illuminate the relative strengths and weaknesses of different diagnosis-based risk assessment methods. The research report concludes that no current risk assessment method can completely remove incentives for risk selecting behavior. This project was a cooperative effort involving actuaries from Coopers & Lybrand LLP and researchers from Harvard University.

The Medical Effectiveness Task Force study provided actuarial guidance to individuals or organizations producing or evaluating health plan performance measurement reports. These reports will continue to gain prominence under health care reform.

### Global connections

To meet the future need for global cooperation within the profession, a new section of the International Actuarial Association (IAA) was formed in Brussels, Belgium, in September. The SOA is one of the full founding members of the International Forum of Actuarial Associations (IFAA). Forty-four actuarial organizations worldwide intend to apply for membership. Bob Collett, SOA chair of the Committee on International Relations, is the SOA's first delegate. Other U.S. actuarial organizations' representatives are Jim MacGinnitie, American Academy of Actuaries; Curtis Huntington, American Society of Pension Actuaries; and Dave Hartman, Casualty Actuarial Society.

The IFAA will concentrate on discussion of common codes of conduct, discipline, education, and standards of practice. Paul McCrossan, SOA Executive Committee member responsible for international activity, is IFAA's first chairman, and Chris Daykin of the UK is vice-chairman. An October 1995 article in *The Actuary* gives more details.

*During the 1994-95 program year, members of the Board Task Force on Education gathered input from SOA members on the proposed changes to the E&E system. Here Cecil Bykerk, chair of the task force, outlines the changes for academics attending the Educator's Lunch at the annual meeting. Kenneth Friedman (left), member of the Committee on Career Encouragement, hosted the lunch.*

### Publications and CE move toward electronic delivery

The Committee on Member Communications researched the possibility of transforming the delivery method of Society publications from paper to electronic media. As a result, the Board approved the committee's recommendation that all current material should be available electronically by the year 2000 to meet member demand. Some publications will probably continue to be published on paper, with a smaller circulation.

The SOA electronic bulletin board system on the CompuServe network, Actuaries Online, has already put 600 files in its libraries that include software, worksheets, research reports, mortality tables, meeting transcripts, newsletter articles, and lists of passing exam candidates. Use of this medium to "chat" with actuaries from all around the world, to download files, and to conference with special interest groups is increasing. Actuaries Online now has 1,500 subscribers. Access to Internet is through SPRY Mosaic. The September issue of *The Actuary* included several articles about cruising the technology highway.

Technology is also becoming increasingly important in the delivery of continuing education. The SOA has found advanced computer-assisted learning to be very useful to members. It also has set up video conferences using satellite technology.


*More than 100 actuaries got ready to meet the press by attending one of three Actuarial Circles briefings this year. Here Steve Bailey, business reporter from the* Boston Globe, *and Paul Tetrault, editor of the insurance weekly,* The Standard, *field questions at the annual meeting session.*

The Retirement Systems Practice Area Advanced Technology Working Group issued a report last spring, suggesting ways the SOA could improve services for its members through technology.

### Other publication initiatives

This year, the SOA began development of a new refereed quarterly journal to equal major actuarial journals of Europe and scientific journals of other

*(continued on page 15)*

## 1994-1995 Year in review (continued)

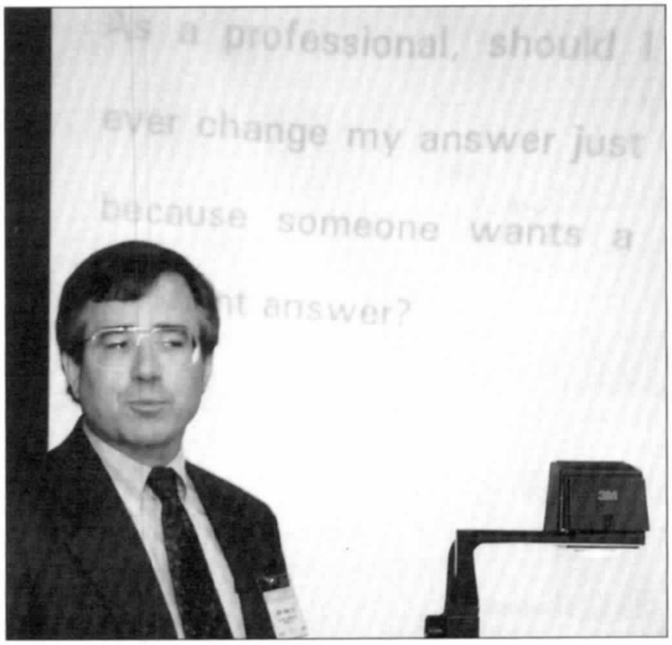

*Joseph McKenna (left) explores the features of Actuaries Online, the SOA bulletin board, with BBS assistant Debbie Jay (right) at the annual meeting exhibition hall. He later signed up to become one of the 1,500 now able to access electronic information and chat with actuaries all over the world.*

professions. The first issue of the *North American Actuarial Journal* will be published in 1997. Its authors and associate editors come from within and outside SOA membership. Sam Cox, FSA, professor of actuarial science and insurance, Department of Risk Management and Insurance, Georgia State University, will serve as its first editor.

The new Committee for the Encouragement of Literature will work in close association with the new journal to actively recruit invited and solicited papers or monographs.

### Other important accomplishments

In May, the SOA released the final GAR-94 Mortality Table, which has been provided to the NAIC as a possible replacement for the 1983 GAM Table for valuation of group annuities. At the same time, the SOA released the UP-94 Mortality Table.




*Training in ethics and professionalism is an important part of all new Associates orientations. Jeremy Brown leads new Associates attending the annual meeting breakfast into a discussion of "real life" ethical questions.*

That month, the SOA also accepted the Long-Term Care Insurance Valuation Methods Report, which was provided to the NAIC for developing valuation standards for long-term care insurance.

In October, the Board accepted the final draft of the statement, "Principles Regarding Provisions for Life Risks," submitted by the Committee on Actuarial Principles. Publication of this statement, along with the earlier "Principles of Actuarial Science" (*TSA* XLIV), fulfills the charge given to the committee in 1988.

Also in October, the Board authorized two task forces — the Life Nonforfeiture Task Force and the Structured Settlement Valuation Task Force — to express opinions to the NAIC.

An SOA study of a wide range of public financial guarantee programs conducted by the Price Waterhouse Office of Government Services has been completed and will become a monograph. This study can be viewed as preliminary to further studies addressing how actuarial methods could be used to assess the risks in these programs. Understanding the breadth and scope of government intervention in credit markets is the first step in developing more accurate measures of risk. Another research project, "Public Employee Retirement Plans Research: Experience Studies, Valuation Reports, and Unfunded Liabilities," will also be published as a monograph.

SOA Research and the Life Insurance Marketing and Research Association (LIMRA) completed a report on universal life persistency results that have never before been published on an industry basis. Results are shown for several different policy, agent, insured, and product characteristics.

The Intercompany Study of the Long-Term Care Experience Committee was the first public report on experience of lives insured under private long-term care insurance plans. The committee gathered and refined data secured from 10 insurers for policies in force between 1984-1991.

The *Dynamic Financial Condition Analysis Handbook* was developed to provide a new tool to analyze the risks assumed by management due to business decisions.

# Sections lend grassroots support

The 13 Special Interest Sections continue to develop new leaders for the profession and lend valuable support to SOA activities, especially to research and continuing education programming. Because of the diversity of specialties among SOA members, Sections help ensure programs respond to the needs of all members.

Some highlights of the 1994-95 program year include:

- Decided to send representatives to SOA Board of Governors meetings when agenda items relate to a Section's specialty
- Combined efforts to co-sponsor sessions at meetings
- Pension and Computer Science sections supported the Macrodemographic Feasibility Research Study
- Computer Science Section encouraged Actuaries Online, the electronic bulletin board, and explored an Internet connection
- Health Section began to integrate with the Health Practice committees
- International Section continued support of 22 Ambassadors representing the Society and offering assistance to needs of SOA members all over the world

## Section Membership

| Section | Date Organized | Members (as of Nov. 1995) |
|---|---|---|
| Pension | 1983 | 4,173 |
| Investment | 1987 | 4,096 |
| Product Development | 1982 | 3,652 |
| Financial Reporting | 1982 | 3,481 |
| Health | 1981 | 3,476 |
| Computer Science | 1992 | 2,417 |
| Nontraditional Marketing | 1984 | 2,375 |
| Reinsurance | 1982 | 1,669 |
| International | 1992 | 1,529 |
| Futurism | 1982 | 1,071 |
| Actuary of the Future | 1993 | 960 |
| Education and Research | 1991 | 776 |
| Smaller Insurance Company | 1993 | 617 |

- Nontraditional Marketing Section completed two research projects to be published in the *TSA Reports*
- Pension Section published *Statistics for Pension Actuaries* and had representatives on Academy committees and the government's Intersector Group.
- Reinsurance Section published the white paper, *Risk Transfer in Life Insurance Company Reinsurance Transactions.*
- Education and Research Section participated in several academic initiatives, including the Halmstad Prize and ASA/FSA grants.
- Smaller Insurance Company Section's newsletter, *small talk,* covered meetings and actions by organizations, such as the NAIC, that impacted their members.

*Outgoing and incoming Investment Section Council members meet at their breakfast at the annual meeting. They are: (standing, L-R) Cindy Forbes, Susan Watson, Peter Hepokoski, Robert Reitano, (seated, L-R) Stephen Reddy, David Becker, Dennis Carr, and Allan Fen.*

*The Pension Section shows its appreciation by Neil Parmenter (left) presenting Dan Arnold (right) with a plaque honoring his continuing service as editor of* Pension Section News. *This year, the 13 Sections produced 32 newsletters.*

*Health Section members enjoy their annual meeting breakfast in the Boston Marriott's atrium.*

# Awards and honors

### Ed Lew, Chairman Emeritus of the Committee on Life Insurance Research

At the October Board of Governor's meeting, the Board conferred upon Edward A. Lew the title of Chairman Emeritus of the Committee on Life Insurance Research. Lew was recognized for his many contributions to the Society's research activities and his "enthusiasm, energy, and support of the activities of the Committee on Life Insurance Research." His service has spanned six decades, including serving as the 1973-74 SOA president.

### AERF 1995 prizes

Dr. Gary Parker, ASA, professor in the Mathematics and Statistics Department at Simon Fraser University, Vancouver, received the $1,000 Everett Curtis Huntington Prize for "Stochastic Analysis of the Interaction between Investment and Insurance Risks." This prize honors the best research paper that receives Associateship or Fellowship credit in the Society's education program for research papers. It will be published in *ARCH* 1996.2.

Two 1993 papers by Knut K. Aase, professor at the Norwegian School of Economics and Business Administration's Institute of Finance and Management Science in Bergen, Norway, received the $750 David Garrick Halmstad Prize for the best actuarial research papers published in 1993. They are "Equilibrium in a Reinsurance Syndicate; Existence, Uniqueness and Characterization," published in the *ASTIN Bulletin* 23, No. 2 (1993), and "Premiums in a Dynamic Model of a Reinsurance Market," published in the 1993 *Scandinavian Actuarial Journal.*

Dr. Sarah L.M. Christiansen, FSA, assistant corporate actuary at The Principal Financial Group, Des Moines, received the AERF Practitioners Award and $1,000 for her paper, "Representative Interest Rate Scenarios." This award is for the best research done by actuaries in a nonacademic environment.

### Gerber and Shiu win Annual Prize

*Hans U. Gerber (left), University of Lausanne, Switzerland, accepts the Annual Prize from President Bob Berin for the* TSA *paper, "Option Pricing by Esscher Transforms," co-authored with Elias Shiu, University of Iowa. It was selected as the best paper accepted for publication in the* Transactions *between July 1, 1994, and June 30, 1995. The paper is in Vol. 46.*

### AERF establishes James C.H. Anderson Memorial

*Curtis Huntington (center), executive director of the Actuarial Education and Research Fund (AERF), signs a Memorandum of Understanding that establishes the James C.H. Anderson Memorial. Administered by AERF, the memorial will reward innovative individual achievements in financial and actuarial matters. Anderson was a distinguished actuary and a pioneer in new products and practices, introducing universal life insurance in 1975. Contributors of $100 or more receive a collection of Anderson's works in CD-ROM; contributors of $1,000 or more receive a book and CD-ROM. Members of the Anderson Memorial Group pictured here are: (standing, L-R) Brian Lewis, Jack Turnquist, Bill Ferguson, and Rolph Masecar. AERF Board members pictured here are: (seated, L-R) LeRoy Boison, Curtis Huntington, and Charles Barry Watson.*

**From the editors and the staff of The Actuary, thanks for your readership and support in 1995 and best wishes for a happy and prosperous 1996.**

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