

The Actuary

SOCIETY OF ACTUARIES 1995-96 YEAR IN REVIEW

THE
redesign
OF THE
actuary



The Actuary

The Newsletter of the
Society of Actuaries

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Inside this issue

Presidential address: Redesign of the actuary.....3	<i>Sam Gutterman</i>
Annual treasurer's report8	<i>William Carroll</i>
Spring meetings9	
Annual meeting.....10	
1995-96 year in review12	
Foundation progress17	

Membership Statistics November 1, 1996

Membership, Nov. 1, 1995

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

Increase through:

Examination	5
*Election	35
Reinstatement.....	34

Decrease through:

Death	47
Withdrawal	253

Membership, Nov. 1, 1996

Fellows	7,987
Associates	8,571
Total	16,558

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

January Board meeting open to members

Interested Society of Actuaries
members are welcome to attend the
Board of Governors meeting
January 17, 1997, at the Four Seasons
Las Colinas in Dallas, Texas. Minutes
of Board meetings are available on
request and on Actuaris Online.
For more information on the meeting,
call the SOA office at 847/706-3500.

1995-96 Board of Governors

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PRESIDENTIAL ADDRESS

The redesign of the actuary



by Sam Gutterman
 Address at the Annual Meeting
 October 28, 1996
 Orlando, Florida

Change. Sometimes mild. Sometimes radical. One thing is certain. Change characterizes our world. In fact, we will live with change the rest of our lives. Dealing with it, as professionals and individuals, will challenge us. My focus today is how current and future actuaries will have to react to it. Updating the definition of an actuary

During the past year, I have been frequently asked what an actuary is. The dictionary answer defines us by the type of technical work we performed in the insurance industry many years ago. For a general audience, I think the following definition describes us well:

An actuary is a professional trained in mathematics who applies a knowledge of probabilities and statistics in financial matters related to individuals or organizations. For instance, actuaries use their skills and knowledge to determine the cost of insurance and employee benefits and to measure the economic consequences of uncertain events.

For actuarial consumption, I prefer a more complete, more subtle version: An actuary is a professional who identifies and analyzes the implication of future possibilities, especially with respect to risk. In conducting

this analysis, the actuary develops one or more models to estimate the financial impact of future uncertain events. The models may reflect the decision-maker's objectives and risk tolerances, reflecting explicit assumptions based on:

- Historical experience from similar types of exposures or related phenomena, and
- In-depth knowledge of the environment in which the future experience will occur, which may differ from the environment from which the data were obtained. This knowledge enables an actuary to assess:
 - The relevance, reliability, and credibility of available historical or related data
 - The sensitivity of the models to changes in assumptions and model specifications, resulting in an assessment of a range of model results over a single or multiple potential scenarios.

To enable the decision-maker to effectively operate in an environment of risk and uncertainty, an actuary interprets the results of these models so that practical alternative approaches can be developed to manage future outcomes. Because of the difficulty of predicting future contingent events and their consequences, these approaches are often dynamic.

Periodic evaluations of emerging experience and prospects for future change are required to enable an actuary to appropriately modify his or her estimates or to more appropriately manage the risks undertaken.

Profession's scope needs to be marketed. Whatever definition you prefer, the profession's scope is much broader than is generally recognized. Two important strategic issues for the profession are related to this:

- 1) Marketing this enhanced scope outside of the profession
- 2) Preparing the actuary to satisfy this "job description"

Those who have heard of our profession assume that actuaries are highly quantitative and deal with numbers all day. In my experience, actuaries are more involved in business issues that happen to benefit from logical and mathematical methods. Such work does require a sound quantitative base.

But today, that's not enough. Actuaries need a sound approach to financial model building, the ability to manage a project and the people working on it, the ability to communicate results, and the ability to work jointly with technical and non-technical professionals from other disciplines.

As A.H. Bailey, a British actuary, said in his 1880 Presidential Address to the Institute of Actuaries in London: "An

(continued on page 4)



Presidential address (continued from page 3)

actuary must be a mathematician, but a mere mathematician will be a very incompetent actuary.”

One thing is certain. Our profession's scope is much broader than is generally recognized. But how do we prepare the actuary to satisfy this bigger “job description?” How do we communicate this enhanced scope outside the profession? These are strategic issues for the profession to tackle.

Several actuarial organizations are pursuing the strategic issue of marketing, but those efforts are loosely focused. Now is the time for the profession and the Society of Actuaries to take action and commit significant resources for programs that promote a positive, clear, and broader image. We must ensure that actuaries can respond to the “Ask an Actuary” campaign Walt Rugland spearheaded a few years ago. How we accomplish this — or rather, how we prepare the actuary to meet this new job description — requires a “redesign” of the actuary. What do I mean?

In general, actuaries have a set of sound skills and approaches to problem-solving, including our ability to rigorously pursue all implications of an issue. This is partly developed by surviving our rigorous education and examination system. I refer to these skills as the actuarial platform. Most of us share this platform, regardless of our practice area. How we apply it today defines us as actuaries. This is true even if we no longer consider ourselves involved in technical actuarial work.

How we apply it tomorrow will determine how the profession evolves. I am referring to a redesign that will allow us to change, but also to retain our existing strengths. Dramatic changes in business make redesign necessary. Let me describe some of the major changes we are experiencing, because they are the reasons for the need for our redesign. They affect all areas of actuarial practice.

Technology has provided more opportunities than disadvantages. It has given us improved access to data and research, the ability to provide a better service or product, and the potential to expand beyond our current professional scope. A year ago, an article in *The Wall Street Journal* asserted that technology would eliminate the need for actuaries because the computer would do much of our work, which it characterized as number crunching. Don't believe it! In fact, technology really should allow us to do our work better and expand our scope.

The broadened scope our profession aspires to is already populated by others. They understand their turf, and this won't make our expansion — or our response to change — easy.

We constantly hear about the *consolidation of the industries we work in and with*. This may hurt some in the short term, but at the same time, it presents opportunities as the need for sound business advice increases even more.

A greater long-term threat, I believe, comes from *increased regulation*. The need to comply with new rules may boost our short-term employment. However, if we are content to serve our clients by simply satisfying regulatory or legal compliance requirements, our customers will perceive us as necessary evils rather than as value added professionals. Such an environment also diminishes our incentive to provide creative, proactive value. Ultimately, the vitality of our profession, our influence, and our scope will diminish if we concentrate too much on compliance work.

Today, *we are not the only profession to address business risk*. This is even true in the insurance industry, where

we once monopolized risk assessment activities. Others now also rigorously address risk. The new so-called financial engineers are just one example, although they have taken a relatively narrow approach of solving risk-related problems only through the use of derivatives.

The reality is that the broadened scope our profession aspires to is already populated by others. They understand their turf, and this won't make our expansion — or our response to change — easy. However, if our ideas remain unmodified and if we do not apply and expand our actuarial platform, others will overtake us, even in our traditional domain.

It will not matter that our solutions are “right” if they aren't well *communicated*. In other words, we cannot assume that our actuarial black box solutions will not be challenged. In the past, ivory tower solutions were tolerated; now, they are a turn-off. Other voices will recommend practical solutions or, alternatively, develop more technologically advanced ones if we don't do it first.

Business is now *global*. This trend will not affect every actuary's work. However, think for a moment. The future public we serve may be in another country. Our employer or client may be from another culture. Our fellow team member may have grown up in another country. Knowledge of your own practice may be sufficient today, but not necessarily tomorrow. I have learned in my international travels for the Society that, even though other countries have different techniques and approaches to problem solving, the issues are similar throughout the world. We must be knowledgeable about the international environment, because our competition may not be whom we now expect.

Our *business environment is changing*. Company consolidations have reduced the number of organizations, while opportunities for new clients have increased. Dividing lines between industries are blurring, whether they include hospitals for health actuaries or



other financial institutions for life or finance actuaries. Management fads such as strategic business units, re-engineering, and quality management also impact the size, shape, and structure of actuarial areas. Peer support groups may not be as available as they once were, and the ability to hire more actuaries may be changed.

More frequently than ever, actuaries are working in *multi-disciplinary situations* where seeing the big picture and identifying problems are essential. New attributes for a new era. All of these changes are here today, and they must be addressed by a redesign of the actuary. What should this redesign consist of? It should encompass attributes that will allow actuaries to address change and overcome challenges.

Let me describe these attributes.

1) *An ability to identify risks.* The first step in risk assessment is the identification of significant risks.

2) *An ability to identify opportunities.* Too often we focus only on risks. We must also focus on opportunities and how to take advantage of them. I still see actuaries who either don't address the significant underlying issues of a problem or treat these issues as if they were someone else's problems. Perhaps they feel the issue is outside their job description. The redesigned actuary, however, will rewrite this job description.

Though we are always asked for unique answers, we must educate others to the fact there is more than one probable future.

3) *An ability to apply unstructured problem solving skills and to be intellectually curious.* After identifying a risk or opportunity, we must adapt new techniques and approaches to address them. We can't just extrapolate; we must anticipate change. In addition, and possibly more important, it isn't enough to ask how — we must also ask why, and what other alternatives exist.

4) *Maintenance of both a long-term and short-term perspective.* Historically, this has been one of our strengths; we can't lose it in the midst of our redesign.

5) *An ability to construct realistic actuarial models and apply them to derive practical answers to business problems.* The wisdom to learn from past experience is an actuarial strength, but we must realize that the future rarely replicates itself. We are experts in the use of discounted cash flow techniques; we need to expand and further improve their applications. This realization will result in the use of more dynamic models and follow what the Australian actuaries describe as the actuarial control cycle.

6) *A willingness to examine alternative scenarios.* We cannot predict the future. Although we are always asked for unique answers, we must educate others to the fact that there is more than one probable future. In order to assess the financial implications of risks and opportunities effectively, it is desirable for us to develop multiple scenarios, to demonstrate their impacts, and what can be done about them.

7) *Recognition that most problems don't have black and white solutions.* In fact, most problems usually involve various shades of gray. We have been taught to weigh both the advantages and disadvantages of alternative solutions. While we cannot lose this approach to problem solving, at the same time we can't freeze and not make any recommendations or decisions at all.

8) *Need to take advantage of technology, but not be controlled by it.* We must use technology to help create new opportunities and insights, but not be driven by it. Technology is a tool, and not an end all by itself.

9) *Application of known models to new problems and identification of new methods for application to existing problems.* For example, we must become more familiar with applications of financial economics. The new financial textbook the Foundation will publish and distribute to actuaries will serve us well.

(continued on page 6)



The new Presidential Award program, instituted by Sam Gutterman at the annual meeting, honored four individuals at the Board of Governors dinner at EPCOT Center in Orlando. Two honored were Bob Myers (left), former chief actuary of the Social Security Administration, for his public service; and Bern Bartels, (right) SOA exam registrar for 25 years, and bell ringer at 100 SOA meetings. Other honorees were Paul McCrossan, for his work to establish the International Forum of Actuarial Associations, and the late Edward A. Lew, for his contribution to actuarial research and modeling.





Presidential address (continued from page 5)

10) Sound research skills. We will increasingly access both actuarial and non-actuarial data and studies. Although the Society will continue to enhance our own strong research program, we will also have to learn to look to the results of others as well; we don't have a monopoly on knowledge.

11) Need to go beyond what is required. We will have to perform more than just a compliance function to be of long-term value to our employer or client. We have to add business value.

12) Communication to the users of our services in their language. We really need to substitute facts for impressions. Facts in this context do not necessarily mean a single answer to a problem, but rather more complete information and analysis to help others make informed decisions in language they understand. Focus on significant macro issues, rather than refined solutions to micro issues, should highlight our contributions.

13) Confidence in our ideas and proactive pursuit of them. In addition to our fundamentally sound quantitative approach, I believe actuaries have been successful because of an in-depth understanding of our environment. We know more about our current practice

areas than anyone else. The emphasis in our new education process will be on more generalized problem-solving approaches that use a wider scope of methods and techniques. At the same time, we must combine this with an in-depth knowledge of our environment. This means we must continue to be on our toes.

The results of our education redesign project will further the work of the actuary and the worth of the actuary, as well as the public perception of the actuary.

14) Professionalism. But most of all, it is very important to be a professional, by acting with personal integrity in the public interest. For those who have gone through a Fellowship Admissions Course, you need to continue to practice what you learned there throughout your career. For those like myself who have not, I encourage you to think long and hard about what it means to be a professional, and to act accordingly.

The SOA's role: Help us manage change. Here is what the Society of Actuaries should do. Let's start with our investment in aspiring actuaries. This year marks the Society of Actuaries' 100th anniversary of offering professional education and examinations.

Our educational redesign structure, which the Board of Governors

approved on October 27, is all about renewal and commitment to, and investment in, our profession's future.

If implemented according to plan, it should increase the value of future actuaries and broaden our profession's scope. It will be a significant milestone. This redesign should continue our tradition of excellence that we are known for around the world. I broadened my personal scope by studying both life and casualty actuarial examinations. That has better prepared me to tackle different business problems. Although my personal education formula is not for everyone, it is an example of a continuing education plan current and future FSAs should develop.

We need to do everything we can to help actuaries break out of their cubbyholes.

In fact, in a recent telephone survey of randomly selected SOA members, a significant percentage favored compulsory continuing education for the profession. I think we should explore this issue further. This response suggests that actuaries recognize the importance of continuing education in times of change. How high should the bar be set to keep actuaries up to date?

At the same time, we need to expand our continuing education offerings considerably in the future, both in traditional areas of interest and in others. We need to do everything we can to help actuaries break out of their cubbyholes.

With respect to our research, I also believe we should expand our invited papers program and encourage more submissions on a variety of significant topics. We should focus on developing new techniques, broadening our set of applications, and adapting those developed in other fields, such as financial economics, biostatistics, and investment modeling. We must also market our knowledge and our research better.



President Sam Gutterman (seated on floor) celebrates with new Fellows at the Dallas Fellowship Admissions Course in March. The 1996 spring crop attending this FAC and the one in Atlanta yielded 170 new Fellows; the fall FACs in McLean, Va., and Toronto added 165.



We have begun this process with the publication of our new journal, the *North American Actuarial Journal*, and our visibility on the World Wide Web.

We also have to make sure we stay outward focused on a proactive basis, and not just inward looking. If we don't pay attention to our customer, we may find we are just talking to ourselves.

We have talked a lot about expanding our profession's scope. I've seen early signs that our efforts are succeeding. For example, our new finance and investment education tracks are excellent. Now, we must help find opportunities for our graduates in these areas. We must work with university professors and recruiters, among others, to increase and broaden the placement of actuaries. We must promote our positive image. We need to broaden our employment opportunities, so the redesigned actuaries can do their thing. We can only keep their loyalty if we prove that we can help and actuaries become recognized as value-added professionals. Too many qualified young actuarial candidates leave the profession. The profession needs to keep them. We can only do this by relevant and valuable education and research. They need to be proud of becoming an actuary.

Create your own plan, making it flexible enough to respond to your changing needs.

Our role: Growth is up to us. Now the remaining question is, "What should you do?" The Society of Actuaries can only contribute so much toward helping to redesign the actuary. Ultimately, it is your responsibility to improve your skills. Take a long, hard look at yourself. What attributes do you need to better satisfy the real needs of your employer, boss, or client? How can you keep up with changes affecting you and your practice area? What additional knowledge will you need? What

type of continuing education should you pursue?

I challenge you to take this initiative. Create your own plan, making it flexible enough to respond to your changing needs. Reach out and spread your wings! Go for it — redesign!

Closing remarks

I would like to conclude by saying thanks to those who helped me survive and enjoy this past year as your president. First on my list is my family — Peggy, my wife; Jordan, my eight-year-old son; and Zoe, my six-and-three quarters-year-old daughter. I would also like to recognize my parents. I am fortunate to have them both here with me today.

Second on my list is the SOA staff and our many volunteers. John O'Connor assisted me tremendously, as he has for 16 previous presidents. His loyal and hardworking staff have been a pleasure to work with. The Society is involved in an amazing number of activities, and the quality of their performance has not been compromised. Together with our many volunteers, they clearly make things work.

In my first speech as your president-elect, my major theme was the need for more actuarial champions. I have met many these past two years. They certainly know who they are. I sincerely thank you for your service, your passion, and your contribution. In many cases, it



Past President Steve Radcliffe (kneeling) asks Jordan Gutterman, son of President Sam Gutterman, how he felt when he saw his dad in front of all these people. His response, "I felt good," brought smiles from mother Peggy and sister Zoe.

is a labor of love. I can only urge you and others to continue to expand your efforts as champions.

I would also like to thank my employer, Price Waterhouse, for putting up with my "high priority" SOA projects.

But most of all, I would like to thank you, the members, for giving me the opportunity to be able to experience such a challenging and rewarding period of my life. I hope that I have fulfilled a small part of your faith in me.

Thank you.



Sam Gutterman transfers the Presidential Medal to the 1996-97 President David Holland (left), sealing the pass-off with a high-five.





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 financial management. The results on our management basis of accounting for the fiscal year ended July 31, 1996 (FY 1996), are as follows:

	Amounts (In \$1000's)
Income	\$ 14,828
Operating Expenses	<u>14,835</u>
Net Operating Income	\$ (7)
Non-operating Expense	<u>288</u>
Increase (Decrease) in Member Equity	\$ (295)
Member Equity as of July 31, 1996	\$ 5,688

The operating loss of \$7,000 is within a budgeted loss of \$49,500. The non-operating loss of \$288,000 is the net of a \$355,000 matching contribution to the SOA Foundation and a release of \$67,000 of liability for Illinois sales taxes, reflecting a favorable settlement of that audit issue. The contribution to the SOA Foundation completes our \$500,000 matching contribution commitment. This is in addition to the \$500,000 contributed in 1995 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 \$5.688 million represents 37.3% of the budgeted expenses for the 1997 fiscal year. Not included in this amount is \$1.080 million of surplus of special interest Sections and other restricted funds. We are fortunate to have such a strong financial position as



Treasurer Bill Carroll shows characteristic "Yankee" frugality when he announces at the Orlando annual meeting that SOA surplus is above target, operating results are within budget, and there will be no dues increase for 1997.

we enter a period of fundamental change in our basic education and examination system and unprecedented growth in research.

This report is based on our management basis of accounting. It 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. 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 Committees and approved by the Board of Governors.

4 service segments
For financial management and budgeting purposes, the operations of the SOA are broken down into four service segments:

- 1) Basic education
- 2) Continuing education (meetings and seminars)

- 3) Research (basic research, experience studies, and SOA Foundation support)
- 4) Member services, general overhead, and other activities

This is our second year operating under a revenue-sharing plan. In determining the net contribution to operating income from each of the four segments, research receives 25% of dues and 10% of basic education income, and member services and other activities receive 75% of dues and 5% of all education income. On this basis, the net operating loss of \$7,000 was the result of \$382,000 and \$47,000 contributions from basic and continuing education, and \$167,000 and \$269,000 losses from research and member services and other activities. These results are not untypical and illustrate the challenges in managing the financial affairs of the SOA.

The future
Our five-year fiscal plan reaffirms our commitment to continue our current level of program activities and member services, to make a major change in our education and examination system, and to continue to provide the operation expenses for the SOA Foundation. It also recognizes that we cannot expect continued growth in the number of individuals taking examinations. Consequently, regularly scheduled fees and dues increases are forecasted. Because of our solid financial position, no dues increase was adopted for 1997. For fiscal 1997, we have a budget with expected revenue of nearly \$15.5 million, a net operating income of \$186,300, an ambitious goal.

The five-year outlook is also good. Even allowing for substantial losses as we introduce our new examination system, projections indicate that membership equity will remain slightly above our 25-30% target by the end of our 2001 fiscal year.



Spring meetings blend resort fun with CE

Continuing Education attendance

Spring meetings:			
May 29-31	Marco Island, Fla		916
June 26-28	Colorado Springs		1,167
Annual meetings:			
October 27-30	Orlando		1,642
Valuation Actuary Symposium			
September 5-6	Reno		719
22 seminars			
(including 1 teleconference and 1 symposium)			
			1,205



Speaker M. James Bensen, president of Bemidji State U. in Minnesota, takes over the stage at the Colorado Springs meeting, speaking on "Change Is Our Bread and Butter; Doing It Better Is Our Job Security."



Keynote speaker Daniel Burrus (right) relaxes with the Section luncheon speaker, Dale Irvin (center), and Academy President Jack Turnquist after the May meeting's opening session at Marco Island. Burrus, author of Technotrends, and Irvin, a futurist, both addressed technology's impact on the business world.



The Rocky Mountains and the beautiful surroundings of The Broadmoor make a nice spot for a break between continuing education sessions.



For the first time at a spring meeting, one afternoon was left completely free to enjoy all the Marco Island area has to offer. Special networking activities took attendees to shelling tours, a visit to the Everglades, and golf and tennis tournaments.



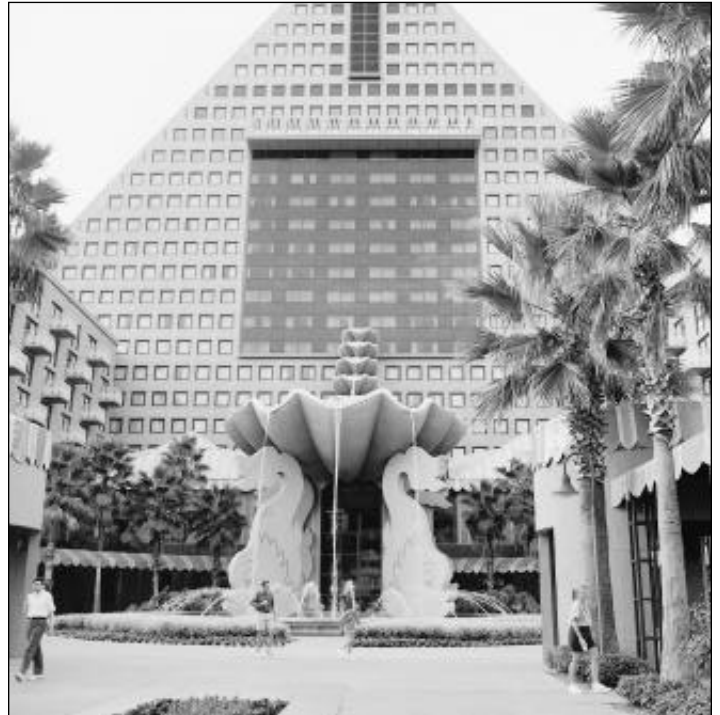
Richard Lamm (left), former Colorado governor, finishes a tough Q&A session with SOA members and President Sam Gutterman (right) at the June Colorado Springs meeting. Speaking on the some of the difficult choices ahead in health care, he outlined his views on "Infinite Needs, Finite Resources: Running a Nation of 50 Floridas."



Children lead the way at annual meeting

What better place to recognize the importance of members' families and the Society of Actuaries commitment to the future than at the annual meeting in the Disney World Dolphin Hotel. A charming assortment of Disney characters, a children's choir, and 200 children of members made the 1996 annual meeting opening session a memorable one for 1,700 participants. Following were three days of choosing from among 150 continuing education sessions, Section breakfasts, receptions, and committee meetings.

Keynote speaker James Baker, having served in senior positions under three U.S. presidents, was well qualified to address "What the World Needs Now..."



Mickey Mouse leads the color guard with Zoe (left) and Jordan (right) Gutterman, children of President Sam Gutterman, bringing in the U.S. and Canadian flags. Almost 200 children of other SOA members followed.



Minnie Mouse signs autographs for some of her smallest fans at the Disney breakfast for 500 SOA members' children and family members.



Entertainer Andy Taylor, backed by the Southwest Middle School choir, sings favorite Disney tunes while Sam Gutterman joins 200 children seated on the floor.



After the choir's inspiring song, "When You Wish upon a Star," SOA Foundation Trustee Walt Rugland gets encouragement from Jiminy Cricket before he outlines accomplishments and his "wish list" for the Foundation.



It's not often an SOA President gets such an enthusiastic welcome onto the annual meeting stage.



The 1996-97 President David Holland and President-Elect Anna Rappaport face the new SOA program year together following the President's Luncheon.



1995-96 year in review

What is an actuary?

Redesigning for an enhanced identity

Last October, when 1995-96 President Sam Gutterman presented the goals he would strive for during the next year, he focused on three areas:

- 1) The actuary as an individual — To become individually stronger through improved basic education, continuing education and communication.
- 2) Actuarial science — To expand and increase the impact of research and actuarial literature.
- 3) The actuarial profession — To focus outward into new practice areas, and on more international communications, and to become more visible to the public.

To make great strides in these areas, Gutterman said he would rely on our volunteers, the practice areas, the Sections, and staff to “run along with him.” That said, he began his leadership role in a year he believed held “great promise for each actuary, actuarial science, and the profession.”

He was not wrong. Much was accomplished this year toward those ambitious goals through the efforts of all these groups.

Part of the work, however, included redesigning the basics — what is an actuary and how can an actuary become prepared to take on new roles into the next century? Redesigning basic education At its October 1996 meeting, the SOA Board of Governors unanimously approved the Board Task Force on Education’s overall design of the new basic education system. This system is being developed to provide a new Fellow of the Society of Actuaries with knowledge and application skills to be able to respond and add value to a rapidly changing business environment. The Task Force — chaired by Cecil Bykerk, with Jeff Beckley (chair of the Design Team), Rob Brown, Peter Hepokoski, John Kollar from the CAS, Godfrey Perrott, Bob Shapiro, and staff members Jeff Allen and Marta Holmberg — was given the green light

for the Design Team to proceed in the direction outlined in the August report to members.

A survey sent with the report was returned by about 800 members. Responses showed strong agreement with statements like “The proposed education system is an improvement over the current system” and “Actuaries educated under the proposed system will be well-equipped to serve their publics and fulfill their professional responsibilities.” With member input sought throughout the process, including presentations at local clubs, five spring meetings and two annual meeting sessions, it is not surprising the members generally support the direction being taken. An article on the E&E redesign membership survey will appear in the January 1997 issue of *The Actuary*.

The Board directed the Design Team to proceed with detailed development of the specifications of the Basic Courses (1-6) leading to Associateship and the Advanced



The Foundation booth was a popular location to check out the latest additions to Charter Investors and to pick up information.



Courses. Courses 1 and 2 form the foundation of actuarial education and Courses 3-6 cover the fundamentals of actuarial practice. The Advanced Courses (7-8) are an intensive seminar on modeling and an exam on advanced topics in a specific practice area. These courses should be ready to implement by January 1, 2000.

Requirements for the FSA designation also include the Professional Development component — 50 hours of education, completed within a two-year period — 25 of which must come from SOA-approved activities like seminars. Up to 25 hours may be earned from an additional Course 8, the Chartered Financial Analyst (CFA) designation, the EA-2 exam, or a research paper. Issues still being discussed are needs of candidates outside North America and validation requirements. As it is now, the Fellowship Admissions Course will be the final step to FSA after all other educational requirements are met.

Transition rules are an area of concern for those who will still be sitting for exams when the new system goes into effect. The important principles guiding those developing transition rules are fairness to the candidates and maintenance of SOA standards. General concepts include:

- New and old courses will not be concurrently administered.
- Credit will be given for new courses that generally correspond with some combination of current ones.
- Required courses will correspond.
- Elective courses generally won't correspond with the new courses, but they may be used to satisfy the professional development requirement or to complete the credit needed for the new courses.
- Candidates will have at least three sittings for each current course.

Because candidates are to have three years' notice on transition rules, the intent is to publish them early in 1997.



Chris Daykin (left), president of the International Forum of Actuarial Associations, visits at an annual meeting reception with SOA Ambassador Xiufang Li and guest Joy Ke from China.

Challenges still remain, but the final result will be a redesigned actuary whose core competencies clearly distinguish him or her from professionals in related areas and whose skills will enhance his or her value in both traditional and nontraditional roles. Looking at continuing education redesign Along with redesigning the future actuary, the Board evaluated efforts to provide current actuaries with information beyond basic education to help them in day-to-day, on-the-job performance. A Continuing Education Task Force, chaired by Rick Bergstrom, studied the SOA's CE structure in detail — seminars, meetings, technology, CE requirements, promotion/marketing, fees, speakers, and delivery methods. Their October report to the Board brought to light a key issue: the current CE system lacks a coordinated effort at long-term strategic planning. "In fact, it is not really a system, but many independent events, such as meetings, seminars, publications, and Actuaries Online," the report noted. The task force recommended a CE Coordinating Committee be established to ensure members have access to enriching educational programs.

Interestingly, a July 1996 telephone survey, conducted with a random sample of 500 members, revealed that 90% of the members surveyed favored a mandatory continuing education

requirement for the profession. The Continuing Education Coordinating Committee will investigate this issue further and report back at the March and May 1997 Board Meetings.

In addition to a variety of practice area seminars, significant events in continuing education this year were two seminars on Social Security in Canada and Washington, D.C., a healthcare symposium on risk adjusters, and the development of three CD-ROM modules to provide alternative delivery

of CE material.

Framing new Mission and Vision Statement

Again, internal contemplation of what is an actuary and why does the SOA exist? — so necessary before communicating with outside audiences — resulted in this year's new Mission and Vision Statement. The final draft, developed by President-Elect David Holland and approved at the May 1996 Board meeting, reads:

The Society of Actuaries is an educational, research, and professional organization dedicated to serving the public and Society members. Its mission is to advance actuarial knowledge and to enhance the ability of actuaries to provide expert advice and relevant solutions for financial, business, and societal problems involving uncertain future events. The vision of the Society of Actuaries is for actuaries to be recognized as the leading professionals in the modeling and management of financial risk and contingent events.

Each of the terms and concepts used in the statement was further amplified, and they will be published in the 1997 *Yearbook*.

Revising governance structure A new mission statement was one of the strategic directives accomplished in the 1995-96 program year. Another was revising the governance structure.

(continued on page 14)



1995-96 year in review (continued from page 13)

For two years, under the leadership of Harry Garber, the Task Force on Governance and Governing Issues had been reviewing the SOA's operations and effectiveness. Its actions have already led to improved internal controls, creation of a separate audit committee, and refocusing the Board on its governance role instead of that of management.

At the October 1996 meeting, the Board dismissed the task force with thanks and approved these recommendations for implementation:

- Changing the Executive Committee with its substantive Board functions to an Operations Committee with management and oversight responsibilities. This more clearly assigns the Board of Governors the governance role and avoids a "mini-Board" pre-digesting issues before the Board meets.
- The six SOA vice presidents will not automatically sit as members of the Operations Committee. They will instead serve on the Committee on Planning (to be

renamed Committee on Strategic Planning). The task force believes that by focusing the vice presidents on strategic issues, the SOA can attract vice presidential candidates who may have previously hesitated to take on the heavy management and governance demands currently required.

The transition will take careful management, and some changes will require bylaws changes. These represent the most important changes in structure and processes since the SOA was formed almost 50 years ago. New actuarial literature Another 1995-96 strategic directive was to expand actuarial literature through the new Scientific Publishing Plan, which was outlined in the October issue of *The Actuary*. The plan includes a new monograph series of research reports, of which five have already been published. Mike Cowell is the editor.

The plan also calls for replacing the *Transactions* with a new quarterly journal, *The North American Actuarial Journal*. Sam Cox, editor, and the staff are gearing up to launch the new journal in January 1997. The first issue promises to show the wide range of views and interests of today's actuarial profession. A November 1996 article in *The Actuary* announced the first issue's contents — everything from financial derivatives to the actuarial aspects of Jane Austen's novels.

The *TSA Reports*, with Douglas Eckley as editor, will continue to publish annually with experience studies, committee reports, obituaries, and other standard items previously in *Transactions*.

The Record, previously a bound book, will be available electronically on Actuaries Online beginning with the 1996 meetings, giving members faster access to meeting session content and saving money in printing and postage. Volume 21 covering 1995 meetings will be the last book; however, those without electronic services can request hard copy from the SOA Books Department.



Pat Brockett (left) and Sam Cox (center) accept the last Annual Prize award for the best paper published in *Transactions* in the past year. *Transactions* is being replaced in 1997 by the North American Actuarial Journal. Other authors of this paper, "Actuarial Usage of Grouped Data: An Approach to Incorporating Secondary Data," not able to be at the annual meeting were Boaz Golany, Fred Phillips, and Yun Song.



Anna Rappaport, incoming president-elect, tells members of the challenges the profession will face from the aging society. She will pursue joint cooperation with other organizations who work on similar issues.

Redesigning communications through technology Besides *The Record*, much information useful to actuaries is now online, either through the SOA CompuServe forum, Actuaries Online, or the SOA's new Internet home page — or both.

Actuaries Online, with more than 1,000 files, continues to be a popular choice for its 2,000 subscribers. The Research Library, for example, contains calls for research proposals and status reports of current projects. The Software and Worksheets Library has a table manager program with more than 500 mortality tables built in. The Opportunities Library provides a place for companies to list open positions. Typically, dozens of downloads are noted within the first day of posting a job.



The SOA web site (www.soa.org) went live in July. In the first month, the home page was accessed almost 7,500 times, with nearly 97,000 hits. The most active day to this point was when passing candidates numbers were posted — 19,183 hits on July 19. The top five countries for users are the United States, with 68%, then Canada, Hong Kong, Singapore, and Switzerland.

Site visitors will see the SOA home page is under permanent construction to keep information fresh and useful. Plans include adding an international continuing education calendar and expanding hot links to other web sites of actuarial interest.

Expand alliances with other organizations
Internationally, efforts to share resources through cooperation with other organizations was a focus this year. The International Forum of Actuarial Associations (IFAA) has already begun to strengthen relationships to the benefit of the worldwide profession. It had hardly been formed when the International Accounting Standards Committee asked for the IFAA's input on internationally recognized standards for employee benefits. The IFAA will continue to explore global actuarial education to truly realize its mission "to develop a global profession of technically competent and professionally reliable actuaries who are recognized as such."

In other international ventures, a delegation of North American actuaries traveled to Brazil in August to open discussions with South American actuaries. In addition, members of other countries' actuarial organizations are beginning to come to the SOA to apply for Correspondent status. This allows them to participate in SOA meetings and receive publications.

The September issue of *The Actuary* was devoted to discussions of the IFAA and other international issues.

In the United States, the Health Practice Area, in particular, had several outreach successes. The AAA/SOA Joint Task Force on Communications

for Health Issues began work to promote awareness of health issues and activities. It developed a web page to reach actuaries and those outside the profession in academia, government, and the public. The Joint AAA/SOA Health Financial Issues Committee has formed several task forces to address health insurance issues. Alice Rosenblatt and Dan Dunn (Harvard University) presented findings of the SOA Risk Adjustment study at an SOA seminar and at the annual meeting of the Association of Health Services Research.

The work of the SOA Life Nonforfeiture Task Force and an Academy Working Group also was helpful in providing regulators with an actuarial framework for nonforfeiture to replace the current U.S. statutory formula. The Academy took the SOA task force framework and developed practical examples to help regulators develop a draft of a proposed law. The SOA and the AAA also spent time in meetings educating the industry and regulatory actuaries. They made presentations to the Actuarial Standards Board and the NAIC, and they were the first nonregulators

asked to address to the NAIC Commissioners Round Table. The SOA also provided research helpful to the NAIC in developing regulations for the sales illustrations and valuation of individual annuity contracts.

In response to the Mexican actuarial organization, CONAC, SOA actuaries are helping set up life, annuity, and disability experience studies.

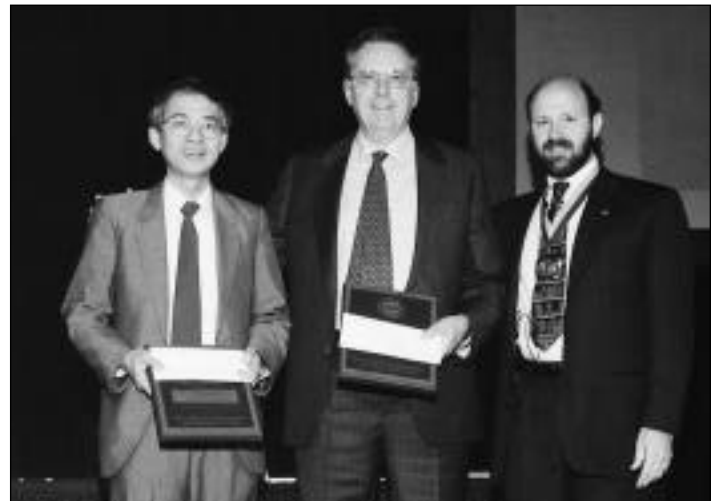
The Retirement Systems Practice

Area's study this year into the feasibility of developing a macrodemographic model for retirement also advanced their goal of improving relations with other organizations and professions, including economists and demographers. Other research links this practice area with the Actuarial Standard Board's pension committee to develop a standard on asset valuation methods and the PBGC to analyze the effect of the Department of Labor's "safest annuity" rule.

The Finance Practice Area also expanded its activities to include several cooperative ventures. It explored emerging practice areas — banking and financial institutions and capital projects — to consider ways to expand actuarial opportunities. Its successful seminar on the Market Valuation of Insurance Liabilities at New York University in December 1995 included a presentation by a representative of the Financial Accounting Standards Board staff.

Communications between the SOA Investment Section and the Association for Investment Management and Research resulted in actuarial work

(continued on page 16)



(L-R) Elias Shiu and Hans Gerber are awarded the Halmstad Prize, administered by AERF, for their papers "Martingale Approach to Pricing Perpetual American Options" and "Option Pricing by Esscher Transforms." Klaus Shigley won the L. Ronald Hill Memorial Prize, established by William M. Mercer for employee benefit plan papers. His "Pension Max Election" paper was published in the October 1995 Pension Forum and will be in the last volume of Transactions.



1995-96 year in review (continued from page 15)

becoming acceptable experience to work toward the CFA designation. In addition, the SOA was accepted as an affiliate of the American Association for the Advancement of Science, which is formal recognition of the actuary's role as a scientist.

The SOA Committee on Actuarial Principles is working with the Casualty Actuarial Society to articulate a set of general principles that will apply to both life and casualty. In a separate initiative, the Finance Practice area is developing asset/liability management principles. Redefining experience studies and expanding research. A comprehensive report by the Experience Studies Task Force in October 1995 recommended improvements needed to ensure efficient management, funding, timeliness, and usefulness of experience studies. In May, the Experience Studies Oversight Subcommittee received survey responses regarding the value of various studies to users. Recommendations were approved, and since then several experience studies have been issued or are being prepared for the next *Reports* volume. These include:

- 1988-89 and 1989-90 Individual Life
- 1985-89 Group Life
- 1992 Private Settlement
- 1993 Structured Settlement
- 1991-92 Group Annuity
- 1983-88 Cause of Death

Significant strides have been made this year in research of topics as timely as today's headlines. Some recent studies appearing this year as SOA monographs cover these topics:

- Valuation of interest-sensitive financial instruments
- Public employee retirement systems
- Public financial guarantee programs
- Catastrophic claims health data base
- Health risk assessment

The catastrophic claims research has become one of the Society's most-requested reports in recent history and has been of great interest to the media.

It has been reported on by *The Wall Street Journal*, *Worth Magazine*, Reuters News Service, and *American Hospital News*.

SOA staff redesign

The Society of Actuaries is an extremely complex organization. A staff report this year to the Board outlined in detail the scope of existing programs, level of staff support, and approximate costs. Under the Board's leadership, 116 committees comprised of 1,300 volunteers and 13 special interest Sections governed by Section Councils provide 84 programs and services. This work is supported by a full-time staff of 75 in the Schaumburg office, and according to members, is being done well. In a July survey, 60% of the 500 members randomly selected to be surveyed said that SOA staff is "effective in implementing programs, services, and policies" and 61% said it is "responsive to my requests and needs."

Although staff support to officers and volunteers continues to increase, a shift in responsibilities gave present staff increased opportunities and avoided adding more employees. Building on strengths already in place and focusing on efficiencies gained through experience helped make staff adjustments to handle increased work load.

At the top level, two departments were merged when Director of Operations Chelle Brody moved to Florida. Communications and Operations were combined under the direction of Linda Delgadillo, CAE (Certified Association Executive). This includes all the publications, public relations, human resources, and general office operations, including Sections and elections.

New levels of responsibility were given to several staff members in this transition. Dana Mikula, a two-year employee, is now manager of human resources and office operations. Cecilia Green, APR (Accredited by the Public Relations Society of America), hired six years ago as editor of *The Actuary*, was named director of public relations. She will be involved in promoting research and publication content, recruiting for



Incoming President David Holland outlines the SOA's new Mission and Vision Statement that aims for actuaries "to be recognized as the leading professionals in the modeling and management of financial risk and contingent events."

and marketing of the profession, media relations for the Society, management of Foundation consumer education programs, and contacts with Forecast 2000, the profession's public interface program managed by the American Academy of Actuaries. Barbara Simmons, Associate Fellow in the Society for Technical Communications, an eight-year employee and publications manager at the SOA for three years, has increased responsibilities in editing and design of the new monograph series, the *North American Actuarial Journal*, and electronic delivery of *The Record*, as well as 13 special interest Section newsletters.

With the retirement of registrar Bern Bartels, Martha Abel, manager of examinations, and Phil Turk, registrar/E&E analyst, have assumed additional responsibilities to maintain management of the exams process.

Karen Baymiller, who is leaving the SOA, will work on a contract basis to manage the SOA annual meeting exhibit trade show and arranging Board meetings. Colleen Fiore, who has been in the Continuing Education department for seven years, will assume responsibilities for annual and spring meeting logistical arrangements as meetings manager.



Foundation celebrates progress

The Society of Actuaries Foundation is now a precocious two-year-old. Out of its infancy, well-developed into a “toddler,” the Foundation is now being guided by its “parents” toward lifetime goals. The 17 Trustees know that heading the young organization in the right direction, with firm principles as a guide, will ensure the success of the Foundation’s mission: to contribute to society by investing in research, communication, and education to help understand and resolve social and economic problems.

Fund raising

Investing in the future of any “child,” of course, takes money. By the annual meeting in October 1996, the Foundation was more than halfway to its three-year fundraising goal: to raise \$1 million from individual donations by the end of 1997. It had more than \$690,000 and 251 Charter Investors: individuals who had pledged or contributed \$1,000 or more. Because the SOA funds staff support and overhead, 100% of all donations go to projects and are tax-deductible.



Individual Contributions (as of Oct. 30, 1996)	
Level	Number of Contributors
Principal — \$25,000	6
Partner — \$10,000–24,999	10
Pinnacle Leader — \$5,000–9,999	8
Leader — \$1,000–4,999	227

Corporate Investors have also donated significant funds to the Foundation, including project partnerships, unrestricted gifts, and special events income. They are:

- Lincoln National \$125,000
- Nationwide Insurance \$ 50,000
- Ward Howell International \$98,000
- Andover Research \$10,000
- D.W. Simpson and Company \$10,000
- Aid Association for Lutherans \$1,500

The matching gifts program has been an important part of the individual contributions program. The following companies match their employees’ gifts:

- American Express Financial Advisors, Inc.
- American Life Insurance Co. of New York
- Aon Corporation
- Great-West Life Assurance Co
- John Hancock Mutual Life Assurance
- Lutheran Brotherhood
- Mutual of America Life Insurance Company
- Pacific Mutual Life Insurance Company
- Principal Financial Group Foundation
- Security Mutual Life Insurance Co. of New York

Projects

The grant-making role of the Foundation is an important one to its mission. The Trustees set a strategic direction early on — to allocate funds to a few, large-scale projects that could have a significant impact. Currently, the Foundation is supporting three large projects:

- \$250,000 to write and publish a textbook, *Actuarial Aspects of Financial Theory*, by a team of 10 international finance experts, co-funded by Lincoln National Corp, to be published in 1997 and offered free to all SOA members



Foundation Chair Jim Tilley tells Trustees and Charter Investors of the Foundation’s impressive accomplishments in just two years of existence.



(L-R) Past SOA President Barbara Lautzenheiser and President-Elect Anna Rappaport get the ear of annual meeting keynote speaker James Baker at the Foundation dinner.

- A \$150,000 grant to develop and implement a consumer education project, “On the Edge of Change; Putting Social Security Back in Balance,” to provide workers with an unbiased look at the future of Social Security. The SOA Communications Department has distributed about 70,000 brochures to more than 300 companies and individuals. The program has been

(continued on page 18)



Foundation celebrates progress

(continued from page 17)

extended into 1997 to solicit more company partners and to distribute 75,000 more brochures.

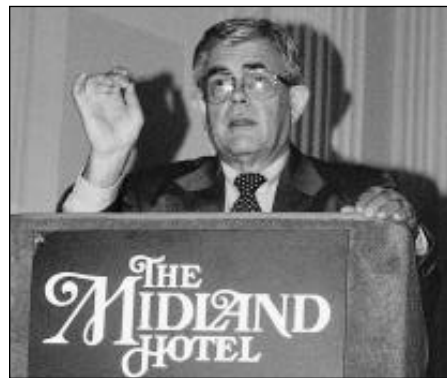
- \$120,000 in “Advancing Student Achievement” grants to six programs from among the 38 proposals received from the United States and Canada to involve actuaries in tutoring and mentoring public elementary school students in math
- \$20,000 to develop a plan for another consumer education initiative on the status and future of Medicare, directed by the SOA Communications Department

The future

The Casualty Actuarial Society, through the Actuarial Education and Research Fund, has elected to become affiliated with the Foundation. The Foundation is now seeking a new name to better reflect its expanded scope.

In addition, the Foundation has a working agreement with the American Academy of Actuaries to maximize the resources of the profession in serving our publics.

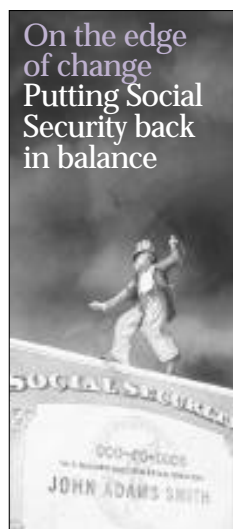
With a grants policy and process in place, the Foundation will continue to consider other initiatives that will have an impact on society’s problems and enhance the public perception of the actuarial profession.



Harry Ballantyne, chief actuary of the Social Security Administration, speaks at a Chicago meeting of WEB (Workers in Employee Benefits) where the Social Security brochures were distributed.



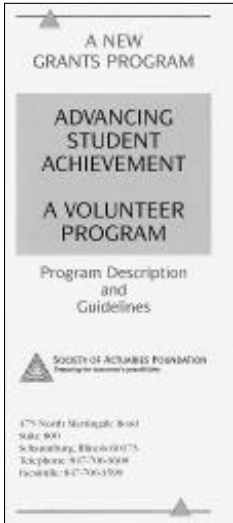
With the PENCIL (Public Education: Nashville Citizens in Leadership) Foundation, the Nashville Actuaries Club was awarded a Foundation math tutoring grant. It involves five schools, including one made up principally of economically deprived children and slated for closing in two years if it does not improve its academic achievement. Nancy Tirril and Bob Johnston (pictured) from the PENCIL Foundation will assist in project design and management.



With 70,000 brochures already distributed and 450 partner packages now in the hands of potential corporate partners, the Foundation’s “On the Edge of Change” Social Security consumer education program has been extended into 1997.



Pete Hepokoski, a Charter Investor, is taped at the Foundation dinner for a testimonial video shown the next morning at the SOA opening session.



\$120,00 in grant money goes a long way in providing math tutoring at six locations across the country through the volunteer involvement of actuaries. In addition to the ones pictured on these pages, schools receiving grants are Warren T. Jackson School in Atlanta, from a

proposal written by Teresa Winer, FSA, involving the Atlanta Actuaries Club; and the Benjamin Franklin School, Binghamton, N. Y., with actuaries from Security Mutual Life working with students to develop a math-based project for the annual science fair.



One of the six Foundation grants went to the Newman Elementary School in Chino, Calif., for a pilot math-across-the-curriculum approach and a math club. Actuaries at Blue Cross/Blue Shield of California and Cigna Health will become telementors to the students. On the site visit, Joe Abel, Ph.D., Foundation program manager, is “knighted” by Student Council President Amy Cota.



Mark Newton, FSA, who works at John Hancock in Boston, is known as “Mr. Financial Wizard” among these Samuel W. Mason Elementary School second-graders. The grant will be used to refine the Hancock employee volunteer program already at the school.



Students at Liberty School in Springfield, Mass., will benefit from a grant to increase students’ critical thinking for real-world problem solving in math education. Its Title I funding was cut this year, with no other grant to take its place. Massachusetts Mutual Life Insurance has about 20% of its workforce already volunteering in the school district. Mass Mutual actuaries Rick Breen and Bob Bartholomew will oversee tutors for this pilot program.



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