



SOCIETY OF ACTUARIES

Article from:

The Actuary

January 1997 – Volume 31, No. 1

The Actuary

Back to the future



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Address at SOA Annual Meeting
Orlando, October 29, 1996*

If you attended a school with an actuarial program, do you remember your first actuarial course? I don't mean math and stats, but something dealing with real actuarial practice. For me, it was "Math of Finance," and it almost convinced me to pursue another career. Thirty years ago, the course focused on multiplying two 10-digit numbers together and then dividing by a 10-digit number. Calculators weren't available, and sometimes to decide on the "right" answer, the class would vote. To me, math was never a democracy, and spending the rest of my life as a human calculator was not appealing. Today, hand-held calculators with preprogrammed functions automatically solve problems more complex than any in that course.

One of my first actuarial jobs was calculating gross premiums for life products. It involved taping together sheets from large columnar pads, setting up formulas across the top, and doing hours of calculations. Then came the inevitable question: What would happen if we changed this number? Again, what took hours of tedious calculations can now be done in micro-seconds with a personal computer and spreadsheet package.

Today, we often prepare models that look 30 or more years into the future. We may conveniently extrapolate the future from assumptions derived from the past, but changes over such a period of time can be revolutionary.

Consider the Texaco gas station scene in the movie *Back to the Future*. The hero, Marty, was catapulted from 1985 back to 1955. One of the first things he saw was a state-of-the-art Texaco station. A car pulled up, and five gas station attendants delivered the ultimate in automotive service. I don't know if you've bought gas recently, but the last time I did, I did not see a single human being. Obviously, the vision of owning a gas station with a large staff lost out to automation, redesign, and downsizing. The future includes paradigm shifts. Both the Texaco scene and my early actuarial experiences show that a vision that assumes the future is a simple extrapolation of the past may be grossly misleading. Today, we speak

of "paradigm shifts." For example, a railroad must now be a transportation company. A manufacturer of large supercomputers cannot afford to ignore developments like the personal computer, local area networks, and the Internet. The United States cannot overlook the financial implications of an aging baby boom generation. Actuaries cannot assume that their world will not change; in fact, many changes are already apparent:

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- Traditional insurance companies and financial services institutions are going through a radical transformation, which is being accelerated by consolidations and mergers.
- Long-standing laws separating insurance, banking, and other financial services are being challenged.
- Many problems and opportunities are being brought on by the aging of the population and the need for Social Security and Medicare.
- Health care delivery is being reformed with many new opportunities for actuaries being brought on by managed care.
- There is an increased emphasis on the quantitative aspects of finance and investments.
- Business is becoming more international every day.

Actuaries must be prepared to respond to these and other changes. Actuaries perceived as backward-looking. Just how are actuaries perceived? We know the truth — actuaries are superheroes. Unfortunately, the general public is not yet fully enlightened. An article published in the April 1 issue of *BestWeek* was no joke. Analysts from Oppenheimer discussed their opinion about problems in the individual disability income market. In a section headed "Fire the Actuaries," they say:

"Actuaries are trained to work with rear-view mirrors; they use historical claims experience, grossed up by expected inflation, to project claims. Moreover, actuaries' work is largely quantitative; they use historical data on the frequency of claims to predict future claims.

"Yet it was precisely this sort of backward-looking, numbers-oriented thinking that allowed the changes in medicine and law to go virtually unnoticed at disability insurers for years.

"That probably wouldn't have happened — at least not nearly to the

same extent — if disability insurers had relied more, in setting their premiums, on industrial psychologists and labor economists, professionals whose approach is much more forward looking than that of actuaries."

Actuaries cannot be seen as scapegoats for marketers demanding aggressive products and management living from quarter to quarter based on short-term results. In spite of our strong computational skills, we cannot accept the label of backward-looking number crunchers.



The 1995-96 President Sam Gutterman (left) transfers the gavel to 1996-97 President David Holland at the Orlando annual meeting.

SOA Mission and Vision Statement for the future actuary I am sharing this with you to talk about the Society of Actuaries' mission and vision. Over the past year, a new Mission and Vision Statement has been developed. I thank the Committee on Planning, the Board of Governors, and the members who submitted comments.

The Dilbert Principle defines a mission statement as "a long awkward sentence that demonstrates management's inability to think clearly." While some of you commented that management works on mission statements when it can't figure out what else to do, and that usually the finished product has little impact on an operation, your statements were generally thoughtful and encouraging. I found the process extremely beneficial in

focusing on where the SOA is and where the SOA wants to be. The Mission and Vision Statement the Board adopted states:

"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."

The education part of the mission

First, the SOA is an educational organization. Students may think we are an examination organization, but we want our system to be the gold standard for actuarial educational excellence worldwide. A Board Task Force on Education has worked on the framework for actuarial education, both for today's actuary and the 21st-century actuary. Education doesn't end with completing exams.

Meeting the needs of our members and other actuaries requires a comprehensive continuing education system, too.

The research mission

As a research organization, the SOA has long conducted historical experience studies, but our research activities have significantly expanded. Our first monograph, *Valuation of Interest-Sensitive Financial Instruments*, will be introduced at this meeting in a seminar track. Three other monographs were released in November, and two more are in production.

The professional role

As a professional organization, the SOA promotes high standards of professional competence and conduct. It has a Code of Professional Conduct and, in matters of conduct and discipline, it cooperates with the Canadian Institute of Actuaries

and the American Academy of Actuaries, including the Actuarial Standards Board and the Actuarial Board for Counseling and Discipline. Public service

Actuaries provide service to the public by developing and valuing financial programs. The SOA meets its responsibility here by recruiting and educating actuaries and by performing its role as a professional organization. Note that as a professional organization, the SOA would place serving the public ahead of serving its members in the event of a conflict between the two.

Service to members

The SOA is committed to serving its members by providing services to meet their needs and improve their skills. This is the case whether our members work in traditional or emerging practice areas. Although most members reside in Canada or the United States, a significant number live or practice in other geographical areas. The SOA is committed to addressing their international needs and to developing actuarial science worldwide.

Knowledge advancement

In today's dynamic and rapidly changing world, actuarial knowledge must be continuously expanded to meet more complex problems and to enhance the value that actuarial analysis adds. The SOA's mission must be advancing actuarial knowledge and enhancing the ability of actuaries to use that knowledge. The Mission Statement acknowledges that today the actuary is viewed as providing expert advice and relevant solutions to problems. Here, there is an implicit perception of the actuary as adviser rather than manager. Our focus will continue to be on business, financial, and societal problems dealing with uncertain future events.

The power of having a vision Before talking about vision for the SOA, think for a moment about the power of vision. The future is not written, and we have the ability to influence it, if not write it. Harold Geneen, the

legendary chairman of ITT, said this on business management:

"You read a book from the beginning to the end. You run a business the opposite way. You start with the end, and then you do everything you must to reach it."

Management's role is to have a vision of the future, a goal we must march toward, an idea on how the book should end. Without that goal, the organization would be propelled only by its existing momentum. With the goal, we can use tools to see if we can reach it or make corrections to achieve it.

Dr. Martin Luther King Jr., an Atlantan who knew the power of vision and dreams, said:

"Let us not seek to satisfy our thirst for freedom by drinking from the cup of bitterness and hatred. ... Again and again, we must rise to the majestic heights of meeting physical force with soul force. ...

"So I say to you, my friends, that even though we must face the difficulties of today and tomorrow, I still have a dream. It is a dream deeply rooted in the American dream that one day, this nation will rise up and live out the true meaning of its creed — 'We hold these truths to be self-evident, that all men are created equal.'"

Walt Disney, the visionary who created Disney World, the location of our annual meeting, said:

"Of all the things I have done, the most vital is coordinating the talents of those who work for us and pointing them toward a certain goal."

The goal and 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."

The vision is expressed in terms of actuaries — not just SOA members. Further, our desire is not just for actuaries to be the leading professionals in modeling and managing risk, but to be recognized as such. I hope the importance of this is crystal clear.

This vision does not mean the SOA is co-opting roles of the other North American actuarial organizations;

one way we can succeed is through cooperation.

Changing the image of the actuary

We must improve the image of the actuary that employers and potential employers have. Walt Rugland was on the right track when he had a campaign to "Ask An Actuary." I also applaud President-Elect Anna Rappaport's initiatives to involve the SOA with organizations emphasizing health and pension education and research.

The SOA vision also seeks to broaden our role from advisers and problem solvers to modelers and managers. Some members think we are pretentious to seek recognition as the leading professionals in modeling and managing risks. I unabashedly accept that criticism and say that I do not see how we can set our sights on being anything other than the very best.

Actuaries are people of incredible ability. Many will play out their careers in traditional practice. However, the 21st-century actuary, the redesigned actuary, must realize that actuarial practice cannot be narrowly defined by traditional insurance applications and life contingencies models. We must envision our role as the financial engineers of the future, and we must gain recognition as the leading professionals in modeling and managing financial risk and contingent events.



Past President Don Sondergeld (left) congratulates David Holland as he begins his term as SOA president.