

TRANSACTIONS

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ADDRESS OF THE PRESIDENT, DAPHNE D. BARTLETT

THE ART OF ACTUARIAL SCIENCE

I'd like to share my vision for the future of the actuarial profession. It's a future where members of the Society of Actuaries are serving a wide array of businesses far beyond those we currently serve and where we realize that we have the ability to do so.

It's a future where our publics think of us not just as insurance mathematicians, but as "professionals who combine business and analytical skills to price and manage future risks." And it's a future where we really are those professionals.

It's a future where we spend more time as an organization being concerned about external issues and serving the public than we do about credentials, organizational structure, and other internal matters.

It's a future where we have moved away from our traditional thinking about what an actuary is supposed to do and have recognized that we can bring more to the table than just a bunch of calculations. We will suggest ideas for improvement, identify opportunities, and be full participants in the decision-making process.

It's a future where we will think of ourselves as artists as well as scientists, where actuarial work is defined more broadly to encompass business as well as technical skills.

We all entered this profession because we are good at math—the science in actuarial science. What many of us have forgotten is that the material we studied in the later exams was mostly business. We learned how to deal not only with the problems that had a single right answer, but also with those problems that didn't have a right answer—the ones that taught us to use judgment, common sense, and far broader skills than just the purely mathematical. This is the actuarial art.

Our original skills are scientific, and we tend to revert to those because they come to us more naturally. We find it easy to address the structured problems, the scientific ones, the ones that have a right answer. We don't

find it as easy to address the unstructured problems: the ones that involve looking at problems differently and coming up with new ideas; the ones that require creativity, judgment, business acumen, and a sense of the big picture; the ones that involve the actuarial art.

If actuaries are going to matter and if we are going to survive, we must change. The actuary of tomorrow will have to put just as much emphasis on actuarial art as on actuarial science.

There's not much point in having a vision of the future if nothing is done to get there. A lot has happened during the past few years to build the foundation for our future. We are ready to begin to broaden our scope.

We must find potential new areas of employment, given the narrowing of our traditional areas of opportunity, the growth in our numbers, and the huge public need that exists for people with our training. Broadening our scope means using the principles of actuarial science that we have all studied and applying those principles to new areas—to any area where there are risks to be evaluated and managed.

The Task Force on the Actuary of the Future has devoted its efforts this year to addressing this issue. To summarize its recommendations:

- The Society of Actuaries must develop a major initiative to market the skills of its members to potential users of those skills.
- The Society must modify its basic and continuing education offerings to provide training for members who wish to pursue these new avenues.
- The problem is urgent.

However, please don't wait for the Society to do this for you. Have confidence in your intelligence and your ability as an individual to research and learn on your own about new businesses beyond those that were covered in the Study Notes.

With respect to the perception of what an actuary is and does, broadening our scope means showing the public and existing and potential new employers that we are not just technicians. It means showing them that we are managers, creative thinkers, and professionals with the courage to do what is right—"professionals who combine business and analytical skills to price and manage future risks."

We can demonstrate to the public that actuarial research is more than the generation of mortality studies or development of new nonforfeiture methodology. We can do this by defining actuarial research to be anything that has an actuarial component, rather than restricting ourselves to only those limited areas that can be described as exclusively actuarial.

This work has begun. The Committee for Research on Social Concerns has appointed two task forces in the last year. One is just in the process of formation and will perform research on life insurance guarantee funds. Its objective will be to review the current systems and to offer suggestions for improvement or change, and it's looking for volunteers.

The other task force, for research on life insurance sales illustrations, has completed the first phase of its work, and its preliminary report was discussed in a session at the Annual Meeting.

What is different about these two projects? First, the reports will contain more words than numbers. Second, the areas being explored could be described as not being exclusively actuarial, unless you recognize that they are using actuarial art, as well as actuarial science.

Another project underway also will broaden our image as being more than number-crunchers. This is the work of the recently appointed Task Force on Long-Term-Care Insurance Valuation Methods. Earlier this year, the NAIC asked the Society to develop morbidity tables for the valuation of long-term-care insurance. Tables were fine for the old days before computers. Are they fine for today even if the historical data were available in sufficient quantity?

We persuaded the NAIC that the Society of Actuaries could better serve it by developing a methodology for valuation of long-term-care coverages. The methodology might include tables, but it also should include more.

The NAIC liked this idea so much that it extended its request for methodologies to life insurance and annuity valuation as well. I'm leaving those projects to my successor.

A more modest effort to broaden the public image of the actuary was the profession's response to the infamous left-handed mortality study. Several people have commented that we should not be wasting our time on such trivia. Please understand that this study was published prior to the current solvency situation. The objective of the rebuttal was to take advantage of the wide publicity given to the study to get across the message that actuaries are more than insurance technicians, and to possibly create some future employment opportunities for actuaries to assist in the preparation of the many similar, possibly erroneous, studies about mortality that the public reads about every day.

Our ideal future would have us more concerned about external issues than internal ones. Today, that's not the case. During the last year I have probably spent more time discussing the organization of the actuarial profession with members than anything else. But it is the least important of all the issues we have to deal with.

Yes, it would be wonderful if we had a tidier organizational structure. It offends our mathematical sense of order that there are so many organizations with “actuary” in their names. The fact is that nobody cares except us, and wishing is not going to make any organization go away. Hardly anyone cares about actuaries, unfortunately, so how can we reasonably expect anyone besides ourselves to care about the fine distinctions between our various organizations and membership qualifications? It really doesn’t matter even to us how many organizations there are as long as we cooperate so the profession is funded efficiently and so, whenever possible, we work together and all don’t do the same things.

There have been many attempts at reorganization over the years. All have failed. It was a major break-through when it was recognized that trying to reorganize was a waste of energy. A far better course of action was to agree to agree. The Working Agreement, signed last year, is a commitment to cooperation between the six organizations representing actuaries in Canada and the U.S. I sincerely hope that its spirit will not die. I hope that future leaders of the profession will continue to build on it and not fall back into the “us versus them” attitudes that have been prevalent in the past. Our profession cannot afford to waste its scarce volunteer resources on such unnecessary squabbling when there’s so much really important work to be done.

What better time to examine our traditional thinking about ourselves and our profession and what actuarial work is all about than now, when all our preconceived ideas about life insurance company solvency have been shattered?

Conversations I have had recently about the life insurance company solvency situation in the U.S. clearly indicate that there is a strong difference of opinion about what an actuary should be. Some feel that the exclusive actuarial role in this situation should be to slowly and carefully develop new and better ways of measuring and funding for risk. The movement to develop a system of risk-based capital is an example of this approach. These are the people who define the actuary as a scientist.

Others, including myself, believe that the actuary should not only take the scientific approach but also play a far more immediate and proactive role in the situation, looking at a much broader range of issues and opportunities. One example would be the implementation of a stronger Appointed Actuary system in the U.S., which could involve the actuary in all aspects of the operations of the insurance enterprise rather than just a few. Another would be to focus on product design changes to better protect against “runs on the bank.” And what about developing new and improved ways of rating life

insurance companies? These are the actuaries who believe we are both scientists and artists.

We claim to be professionals. Being a professional takes courage. We have to have the courage to speak up, to get involved, and to assume the risks that will result from a broadened scope for the actuary, the risks that will allow us to fulfill my vision for the future. I challenge all of you to have that courage.

My objective today has been twofold. First, to encourage those of you who have the interest and desire to broaden your scope, to put the art in actuarial science. Second, to recognize that not all of us are cut out to be actuarial artists. That's fine.

But if you choose to remain as a scientist, please try to understand that there is room for art in our work, and that you should accept and encourage the artists in our midst. It's for the long-term benefit of all of us.

It's been a wonderful year. I can't leave without a few thank you's:

- To the Board of Governors and particularly the Executive Committee, for their energy, their enthusiasm, their hard work and, most of all, their support
- To those of you who served on committees so generously, for your time and your commitment to the profession
- To the Society staff, for their patience with all of us, their loyalty, and their good humor through thick and thin
- To John O'Connor, for his wisdom, his intelligence, and his friendship
- To all of you, for giving me the opportunity of a lifetime

I hope I have served you well. Thank you.

