

## TRANSACTIONS

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### ADDRESS OF THE PRESIDENT, GARY CORBETT

#### THE FUTURE OF THE ACTUARY/THE ACTUARY OF THE FUTURE

The major theme of my Presidency has been The Future of the Actuary/The Actuary of the Future. My first exposure to this subject was in Planning Committees a few years back when we discussed “The Value of the FSA.” In those earlier years our focus was primarily internal—on how we could make the FSA designation of more value. Two years ago, we widened the focus to an outward look at the actuary of the future.

We have concerned ourselves with such questions as:

- What will, should or can be the role of the actuary?
- What knowledge, methods and skills will be required?
- What are the implications for selection, education, training and research?

Following a year of active discussion of these and other questions in the Planning Committee, we formed a Task Force on The Future of the Actuary/The Actuary of the Future to study and make recommendations concerning the future roles of the actuary and the professional activities necessary to prepare and support actuaries for these roles. The Task Force reported its findings and recommendations to the Board a few days ago.

Its report includes a vision of the actuary in the year 2010—a vision of actuaries working in a wide range of businesses, dealing with a broader range of issues, and requiring greater skills.

The Task Force explored the implications of this vision for individual actuaries at different stages of their careers and in different areas of practice and concluded that the actuary must become more skilled in strategic thinking, business knowledge, results orientation, decision making, interpersonal competence, people management, technology application and professional responsibility—all of these in addition to knowledge of the basic technical core that defines our profession now and will in the future.

The report discusses the implications for the profession in the areas of recruiting and selection, basic education, continuing education, public relations, research, and organization.

My purpose today is not to discuss the Task Force report but, rather, to trace the evolution of my thinking on this subject—how my thinking of a year ago has been modified by discussions with actuaries in North America and overseas—and to use this bully pulpit, granted to each Society president, to advance my personal views on the state of the actuarial profession today, and the changes necessary for tomorrow.

This past year I was invited to talk to 15 actuarial clubs in Canada and the United States. I generally gave the clubs a choice of two talks: the traditional “club talk” of what’s going on in the Society or “The Future of the Actuary/The Actuary of the Future.” Eighty percent chose the latter.

Because of my background of 30 years in the life insurance industry, I focused in these talks on the actuary within life insurance companies. My thesis was that actuaries entering companies in more recent years have not been as successful, measuring success by position and relative salary level, as previous generations were at comparable points in their careers. At the beginning of the year I advanced three reasons for this relative deterioration in position and importance of actuaries within life companies. In order of importance, they are:

- (1) There is greater competition for management positions in life companies than there once was.
- (2) The requirements for success in companies have changed, and the actuarial profession is adapting rather slowly to these changes.
- (3) Many younger actuaries, although technically excellent, are less skilled in the elements leading to success in management.

To these three, based on input from the club meetings, I’ve added a fourth:

- (4) The proselytizing of life insurance actuaries by consulting firms.

The greater competition within life companies for management positions is, I believe, the greatest single cause of the reduced success of actuaries. In the fifties, many companies actively recruited university graduates for only three areas: legal, investment and actuarial. (Of course, there were university graduates in the field force.) Investment people largely stuck to the investment area, not getting much involved with operations. This left the field largely to the lawyers and actuaries, and the actuaries generally outnumbered the lawyers—dare I say in quality as well as quantity? For

many years, presidents of life insurance companies were either lawyers or actuaries, with a few agency and investment officers thrown in. I've been talking about CEOs, but the same phenomenon applied at all senior management levels. For example, in the early sixties, the head of DP was frequently an actuary, and until quite recently, the controller was often an actuary—there were few CPAs in life companies. Today, at least in the larger companies, the chief financial officer is more often an accountant, and the corporate actuary may report to him or her. The companies may be well served by this change, but it has definitely not benefited the actuaries.

The second cause: The external and internal environments have changed, and the actuarial profession has adapted only slowly to these changes.

The rapidity of external change and the turmoil in the marketplace have meant that the questions that should be asked are not as obvious as they once were. There is a necessity to operate within ambiguous, unstructured situations. Actuaries tend to be better at both asking and answering reasonably structured questions than at determining what questions should be asked. Obviously, it's not only actuaries who find such an unstructured environment difficult but, I fear, we may be less capable than some other professionals. Certainly our structured examination system, which assumes each question has an answer and, more important, doesn't require the student to consider which questions should be asked, does not help. The case study approach, used in many MBA and other management programs, is superior on this score.

I'm not sure that actuaries are coping with this lack of structure in the environment significantly worse than are other professionals. But when we turn to internal environmental changes, I am sure that actuaries are losing out. The fundamental change is the move within companies to organizations based on business units rather than on functions. The position of chief actuary was traditionally one of the most important in the company—probably second only to the CEO. Today, many of the larger companies have no chief actuary, substituting the corporate actuary, who usually has no responsibility for product design and pricing and who may, as I said earlier, report to the chief financial officer. Furthermore, the corporate actuary is often the only senior actuarial officer in the company. This means that corporate is the only purely actuarial road to senior management. What happens to the extremely capable and innovative pricing/product actuary in a company that buries such people in SBUs, some of them quite narrow in scope? What is his or her line of promotion? The obvious line is into the management of

the SBUs. Actuaries should be ideal candidates for these management positions but, unfortunately, the actuary in such a position seems to be the exception rather than the rule.

Some actuaries apparently don't want the position because they don't feel comfortable managing, perhaps because they've had no specific training, and others aren't chosen because they are perceived to lack management skills. Of perhaps greater importance is the fact that the competition for these positions is often business school graduates, who have at least been exposed to management and marketing concepts.

The picture I've painted certainly doesn't hold true for all companies. Many companies do retain function-based organizations and the chief actuarial position. But the trend is toward line-of-business organizations with an attendant lessening of the actuarial role.

The two factors I've just described are, I am sure, reasons limiting the success of actuaries in the management structures of life companies. I'm less confident of the validity of the third and fourth and invite you to make your own judgment based on your experience.

I originally questioned the view, advanced by some Planning Committee members a few years ago, that today's recruits tend to be more oriented to math and less to business and management. Although I've not personally noticed such a change, I've grown to accept the probable validity of this observation because of the broader opportunities available today to the student who is good at math but prefers business to research or the sciences. When I graduated from university in 1958, an actuarial career was one of the few that appealed to a person with these characteristics. Data processing was then in its infancy, investments did not yet have a strong quantitative base, and none of the best students at that time became accountants, who were regarded primarily as bookkeepers and auditors. This situation has changed so much in the past ten or so years that it is virtually inevitable that we have lost good math-capable, business-oriented students to other professions.

I mentioned earlier that in my discussions of the Actuary of the Future at various local club meetings, I'd been persuaded to add the move of actuaries from life insurance companies to consulting firms. This movement has been going on since my early days in the profession and probably peaked a few years ago. I sense that companies are now doing more to hold on to their best actuaries at all levels and that they probably lose more actuaries to other companies than to consulting firms. Management and political talents tend to be more important and valued in the company environment than in most

forms of actuarial consulting. Unfortunately, from the companies' viewpoint, communications talents, which often go hand-in-glove with management and executive talents, are important in consulting and thus undoubtedly companies do lose some potential managers and executives to consulting. I'll say no more about this factor and leave it up to you to assess how critical it is.

In my club talks, I did acknowledge that moving up the executive ladder is not the only measure of success in an organization and I emphasized I was talking about averages—the best actuaries, those with both professional and executive talents, will continue to rise to the top of companies. I would review the actuaries' considerable, and probably growing, influence over the strategies and operations of companies as risk analysis, related to assets as well as liabilities, has increased in importance. So it wasn't a completely bleak picture I painted.

Having presented my view of the recent past and of trends, I would then proceed to *The Future of the Actuary/The Actuary of the Future*. I see all four trends continuing. With respect to the first two (more qualified competitors and the change in organizations), we can do little about them—nor should we try.

However, we can equip the actuary to compete better within the new organization, and we can attract more business/management-oriented people to the profession.

Before showing how we might accomplish this mission, I'd like to describe how some other actuarial organizations view these matters.

Mike Walters, in his 1987 Presidential Address to the Casualty Actuarial Society, stated:

“The commitment to the fundamentals of the insurance business and the emphasis on technical information may put some actuaries at a disadvantage with regard to leadership and management advancement. The very analytical orientation of actuarial training is in partial conflict with the basic tenet of management training. Management is ‘the art of getting things done through others’ and requires a certain letting go of technical details and the ability to trust in the process to achieve the right results. Actuaries, on the other hand, are trained to cut through to the heart of a problem and try to solve it themselves.”

Regarding the CAS syllabus, Mike said:

“What we should test are the fundamentals and just enough of the details to assess overall problem solving skills. Rather than testing in some cases the ability to memorize facts, why not have a few ‘open book’ exams to test the application of facts and understanding of concepts?”

...We must now ask whether a ten-exam sequence of mostly self-study is the right mode for future actuaries. The traditional syllabus also may not be able to provide other skills that actuaries will need, particularly in the areas of communications—both oral and written—and public relations. These skills depend heavily on empathy or audience awareness, traits that unfortunately are not well developed in many of today’s actuaries who were trained in logic and quantitatively oriented.”

Next, John Muetterties, President of the Conference of Actuaries in Public Practice:

“We must reanalyze our main recruiting tool (or barrier), the exams, asking ourselves: Are we getting the type of person we need?”

And finally, from the Education Working Party of the Futures Committee of the British Institute of Actuaries:

“...barely a third of all actuaries...are involved predominantly in analytical work. Almost a quarter are involved in jobs where the predominant skill is communicating to others and more than a third are in jobs where managerial skills are paramount. This raises the question as to whether it is realistic to expect all actuaries to be trained to a high level in analytical skills when only a small proportion will make their career in jobs which require this emphasis.”

Later in the same report:

“There is a resounding affirmation of the desirability of the profession being made to appeal to graduates from a wide range of disciplines and not just to mathematicians.

...the evidence would seem to be that many intelligent candidates, who might have made successful actuaries, are being discouraged from entering the profession, or from completing the course of study, under the present system. We need to ask ourselves whether such disincentives are a necessary part of the screening process for the profession, or whether they are proving counterproductive. Are we in fact selecting by quality or by endurance, by actuarial potential or by ability to pass a particular type of examination?”

These are the views of the leaders of other actuarial organizations. What about our Society? Do we want to attract more business- and management-oriented people to the profession? How could we decrease the emphasis on mathematics without lowering our standards?

The answers to these and related questions depend to a great extent on the Future of the Actuary. Where will actuaries be working in the 21st Century and in what capacities? Our Task Force has suggested a substantial broadening of the actuary’s role. But, the Future of the Actuary should not be merely an extrapolation from today. We can affect the future by the type of individuals we attract to the profession and by the training we provide.

As I mentioned at the outset, my purpose today is not to discuss the Task Force report. There will be considerable opportunity for all of us to do that over the next few years. However, it is obvious that, properly prepared, actuaries can play significant role in a growing number of industries. Since it is impossible to predict where these opportunities will lie in the next century, we must recruit and train actuaries who are able to capitalize on opportunities as they arise. The broader the actuary's base the more likely it is that he or she will be able to adapt to, and benefit from, a changing environment.

I believe we should create a broader-based profession with a stronger orientation to business and management. We will continue to need technicians—in fact, to advance actuarial science we need to attract some top-notch mathematicians to the profession.

To do so, we must improve our relationships with universities—the subject of Dick Robertson's Presidential Address two years ago and a problem I know Ian Rolland will be devoting considerable energies to in the coming year.

But let me return to my primary theme—the creation of a more management- and business-oriented profession.

For existing actuaries, we can teach management and business in our Continuing Education program. I originally questioned whether the Society should teach such subjects as management and communications, even on a Continuing Ed basis. It's not that I considered such subjects unimportant, just that I believed there to be other organizations better equipped than we to teach them, and we should use our limited volunteer and staff resources to teach subjects more closely allied to traditional actuarial work, those subjects that only actuaries can teach. I've moderated my view on this matter, not only because of the need I recited earlier for actuaries to be trained in management but also because of the tremendous interest shown by our members in these subjects at meetings and in seminars.

Continuing Education efforts alone won't accomplish a significant change in how the actuary perceives the world and how he or she is perceived by others. Meaningful change in the profession will occur only if we attract more business-oriented individuals to the profession and revise our syllabus to make it possible for these less technical candidates to qualify as Fellows.

How might we do this?

Ideally, we should make the actuarial profession known to high school students capable in math and interested in business in order that they can plan a university degree most conducive to success as an actuary. Such a

degree would consist of only enough mathematics to enable an understanding of actuarial concepts and would concentrate on business subjects, with a sprinkling of liberal arts. This degree would generally be in a school of business rather than in an arts and science faculty. (I admit to some possible bias in this selection, since it does describe my own university education.)

Recognizing that sufficient awareness of the profession among students is not going to be created overnight (although the flurry of articles this past spring describing the actuary's job as number one in the U.S. certainly has helped), we must accept for some time the need to recruit from students who do not become aware of the profession until some time in their university career. Our best candidates will be in the math departments because most other students do not have the requisite interest or ability in math. However, even among this group, we should emphasize the business, as opposed to the purely technical, aspects of the profession. We are already taking some steps in this direction. First, we are increasing the emphasis on the business aspects of an actuarial career in publications aimed at prospective actuaries. (Our new brochures are not covered with square root and integration symbols.) Second, we are exploring how we might modify the Course 100 exam to test math and logic aptitude rather than math knowledge, and to introduce elementary risk theory concepts. By the way, this step is a good example of how input from members can influence the Board of Governors. This input resulted primarily from club members reacting to my reporting that the Board, a year ago, had instructed our Education Policy Committee to investigate the elimination of Course 100. The club members told me how valuable Course 100 is as a recruiting tool. So, we'll make it a better recruiting tool, which will also aid in selection since it is math aptitude and reasoning ability, not math knowledge, that's critical to ultimate success as an actuary.

How do we change the E&E system to appeal to math-capable, business-oriented high school graduates? I'll make two specific recommendations:

- 1) Establish multiple tracks to Fellowship not by subject matter but by orientation. As I said earlier, we need to encourage both lesser mathematicians and better mathematicians to become actuaries, the latter to continue the advance of actuarial science and the development of actuarial techniques appropriate to our increasingly complex environment and products. To accommodate this range of abilities, I foresee a small common core with emphasis on concepts rather than on calculation techniques.
- 2) Drastically reduce the number of subjects where the Society would examine and educate. We would restrict our formal E&E program to those subjects essential to practice as an actuary. These subjects would be only those we believe it is necessary



for a prospective actuary to understand to the level of our passing standard, in order to practice as an actuary. That may be as few as a half of our current topics. For the others—the preliminary math exams, economics, law, accounting, security analysis—we would require education, generally in a university, but not require a higher level of knowledge, or demonstration of exam-passing ability, than that required to pass the university course. This concept recognizes that often the university environment provides an educational experience superior to our self-study course for subjects like applied statistics, accounting or economics.

If we were to adopt these two recommendations, the actuarial profession would fall more into line with other professions, virtually all of which rely on universities for basic technical education while retaining to the profession the right and obligation to examine for the knowledge requisite to practice in the profession. A greater dependence on universities would also increase their interest in actuarial science and improve the state of actuarial education in universities.

As fine a job as our Task Force has done on *The Future of the Actuary/ The Actuary of the Future*, it cannot tell us what the future will bring for the profession. But the message I'd like to leave with you today is that the future is not just something that happens to us. We can influence our future, the future of the profession. We should be asking not, "What will actuaries be doing in the 21st Century?" but rather, "What do we want actuaries to be doing in the 21st Century?" The Task Force report provides a good start in surveying the opportunities available to us. To capitalize on these, the profession will need both inspired and dedicated leadership and a broader skill base with a greater orientation to management and business. We can affect our future; we can make a difference.

My friends, that concludes my formal message to you this morning, but I don't want to leave without thanking those who have helped me so much during the past two years. First, John O'Connor and the entire Society staff in Schaumburg. They provide tremendous support to the officers and to the entire membership, and they do this with an unfailing attitude of friendliness and service.

Second, I want to thank the Society officers, Governors and Committee, Task Force and Section chairpersons. Volunteerism is certainly alive and well in the Society.

Then there are my three employers during my two-year term as President-Elect and President (Manufacturers Life, Tillinghast and the Equitable) who have supported me both morally and financially. Also my wife, Consuelo,

who has been a source of strength, particularly when, from time to time, the pressures of time and travel have threatened to overwhelm me.

Finally, I must thank you, the members of the Society, for choosing me to serve as your President. I have thoroughly enjoyed the experience, and it has been an opportunity and an honor second to none in our great profession.