I. Actuarial Needs of the Public

Introduction

This CRUSAP study, above all else, is concerned with assessing how well the actuarial profession is positioned to serve the actuarial needs of the public. Therefore, defining and agreeing on the “actuarial needs of the public” are critical to a successful completion of our Task Force’s assignment.

- What tasks are actuarial?
- What does the public really need from actuaries?
- Who should be included in the term “the public”?

Let us first seek agreement on what constitute actuarial services. The closest to a consensus definition within the profession seems to be “quantifying, analyzing, and managing future contingent risk and its financial consequences.” This definition in various forms was seen again and again in the CRUSAP Task Force survey of some 1,400 actuaries and non-actuaries. Clearly, the core of actuarial science includes the financial consequences of contingent risk.

Other definitions are in common use, as well. For example, the website www.beanactuary.org — an initiative by the Casualty Actuarial Society and the Society of Actuaries for prospective new entrants to the profession — says, “Actuaries are experts in: evaluating the likelihood of future events, designing creative ways to reduce the likelihood of undesirable events, decreasing the impact of undesirable events that do occur.”

Wikipedia, the free on-line publicly written encyclopedia (www.wikipedia.org), defines an actuary this way: “Actuaries are business professionals who deal with the financial impact of risk and uncertainty.”

These definitions all contain the common themes of future risk and uncertainty. For the purpose of this review, we can work with the first definition coming out of our survey. It draws on the actuarial science learned over years of study, plus the business arts also employed by actuaries.

Analysis

The areas of actuarial practice that occupy most actuaries today are generally found within insurance contexts, retirement programs, and health care. Pricing, reserving, and forecasting are all areas that most knowledgeable stakeholders realize benefit from significant actuarial involvement. Some actuaries and many current users of actuarial services feel that actuaries should focus their attention and energies primarily on these areas. For example, several users framed their responses about future needs entirely in terms of current actuarial activities. Likewise, many actuarial respondents defined the public's actuarial needs in terms of insurance or pension systems only.

Our CRUSAP survey responses from current users of actuarial services suggested that they generally recognize the critical roles actuaries play within traditional actuarial fields, although many users seemed to be aware only of their own particular fields of activity. As extreme examples, one respondent defined an actuary as someone who is "a narrow-focused insurance rate maker," while another defined an actuary as "someone who prices future health expenditures."

The number of actuaries is modest, while the needs in traditional areas are substantial. This has been put forth as one argument for a circumscribed approach to the reach of actuarial work; actuaries should stick to doing what they do best. There are other types of professionals who specialize in other sectors of the economy, so it will be difficult (or perhaps impossible) for actuaries to expand services in those other areas, given the continuing needs in most traditional areas of actuarial activity. An actuary considering taking on new kinds of work has at least some obligation to ask himself or herself if there are other professions whose members could better meet the client's needs. Finally, all actuaries have an obligation to avoid undertaking work for which they are not qualified.

One needs always to try to discern not only the need but also the likely demand. Sometimes needs exist, but the demand has not yet made an appearance. In these kinds of situations, the profession must not squander existing limited actuarial resources where there is no demand. There are good contrary arguments that new demands are developing. There are areas of actuarial services where current users of actuaries often criticize them for failing to acquire a sufficiently broad business perspective. Most actuaries believe that the elements that underpin their profession can be applied broadly to serving the public interest in many new areas, especially if actuaries make the investment necessary to gain sufficient knowledge about these areas of potential practice.

It can be argued that a profession that fails to move forward with changing times is destined to become a footnote in history. Even within the traditional actuarial spheres of responsibility (insurance reserves, for example), the needs of the public are evolving and changing. Principle-based reserves, as an example, require up-to-date and forward-looking technical skills from the actuary. Several current users of actuarial services interviewed by the CRUSAP Task Force expressed concern that the business world is changing so rapidly that actuaries will not be able to keep up unless they continuously broaden their knowledge base.

One has only to look back to see important examples where actuaries have been shut out of areas where they might logically belong because the profession did not move aggressively enough. The result has been lost opportunity and the loss of bright young mathematicians and/or business thinkers who, instead of becoming actuaries, opted to join investment banking firms or become economists.

Both the public and the profession would seemingly be well served if the actuarial profession were to reach out to groups of individuals not formally affiliated with the profession but doing work that the profession deems to be actuarial. It may be the case that many or most such individuals should have some kind of formal affiliation with or within the profession. Such outreach by the actuarial profession could help to ensure that the profession continues to expand into emerging areas of actuarial practice. Also, the cross-pollination likely to occur would benefit all parties. Finally, individuals becoming part of the actuarial family would then be subject to the actuarial Code of Professional Conduct and applicable standards.

The opportunities for expanding the actuarial realm are, to some degree, in the eyes of the beholder. Already today, actuaries have expanded their activities into investment research and advising, into retirement plan administration, and into complex modeling involving future risks only indirectly linked to the financial sector of the economy. The profession currently is moving toward much greater involvement in enterprise risk management. The involvement of actuaries in health care now includes measurement of health problem frequencies and severities, and the relative efficacies of treatments, leading to conclusions about best practices.

Future areas identified as possibilities include other aspects of retirement planning for individuals, still broader participation in health care analysis and decision-making, and application of actuarial ideas and techniques to new areas within the financial sector. Expanded activity for casualty actuaries may be forthcoming in tort reform and the field of terrorist attack risks. Actuaries in Australia work in the field of climate change and emissions trading. Some U.S. actuaries have even dabbled in the area of weather futures.

If one favors expansion of the field, there is a question of whether such expansion should be led by the profession or left to individual actuaries. In the latter view, the profession and its organizations should not try to define ahead of the curve what new fields should become the purview of actuaries. Instead, let some individual actuaries first see the opportunities and begin working in these new areas. Then, the professional organizations should follow them into these areas and provide the education and support necessary for other actuaries to extend the reach more broadly. To some extent, it may be a “chicken and egg” proposition. Tools, education, and promotional support may sometimes be critical to the success of individual actuaries in expanding into new fields.

Whether one feels that actuaries should focus on traditional areas or should aggressively seek to expand their horizons, actuaries need to anticipate what the public will expect along the way. Responses to the CRUSAP surveys of actuaries and users of actuarial services seem fairly clear in this regard. Not surprisingly, true technical expertise and appropriate skills are an absolute must. Actuaries must understand the issues in areas in which they seek to serve the public. Education is key — leading-edge, usable knowledge must be acquired and kept up to date.

Second, actuaries must be better able to communicate with employers, clients, prospective users of services, and, on occasion, members of the general public. The best technical work can fail to rise to the level of good service if it's communicated poorly. It is telling that nearly half of the users of actuarial services responding to the CRUSAP survey said that actuaries communicate less than adequately. Only 3 percent said actuaries communicate "very well." Many who deal with actuaries have recommended more training in this area.

A third proposal from many survey respondents and interviewees is that actuaries must speak out more if they want to be recognized as experts, especially in new or high-profile areas of practice. This idea is controversial. Many actuaries perceive a need for greater actuarial input into social programs and public policy discussions. These respondents suggested that there are needs for actuaries to:

- Advise policy-makers and legislators;
- Provide reliable cost information on existing or proposed programs;
- Educate the public on complex issues;
- Debunk spin;
- Enable us all to have more confidence in these programs and proposals (when these plans warrant confidence).

Those who advocate greater visibility suggest that as the profession becomes better known, the public and policy-makers will be more willing to recognize its expertise and will see the need for actuarial input.

At the same time, actuaries must recognize that greater visibility in areas involving public programs carries risk. Individual actuaries who speak out will most likely express their own points of view (or those of their clients or employers), and such expressions may cause the public to attribute bias to the profession as a whole. Further, large-scale, organized activity in this area can be quite expensive. Actuaries exhibit a wide diversity of opinions on most major public social program issues. Getting to a single public expression of even actuarial opinion has proven most difficult for the democratically organized actuarial profession.

Ultimately, there is no guarantee that those who would pass judgment on the future public activities of actuaries will be fair in their assessments. That risk is political reality, and the reputation of actuaries could suffer as a result. It can be quite risky to enter the political world unless one understands the larger political landscape, no matter what the needs of the public are.

In our surveys, interviews, and literature reviews, we have heard a range of opinions on how we should define our "public." One view is that our profession really has no generalized duty to serve the broad public at large. While clearly there is no legal duty to the public of a nature that would impose negligence or malpractice liability, those who espouse this view are not saying that the well-being of the general public is unimportant. Rather, they say that their primary obligation is to those who employ or hire them. If an actuary serves these direct stakeholders well in their pursuit of lawful, ethical goals, then by extension the actuary will have performed useful service for the broader public affected by the activities of their employers or clients.

They also argue that few members of the general public really know what actuaries do, and fewer care. Some actuaries also attempt to make a distinction between those actuarial roles that have a public aspect (especially when involving certification) and those that are more limited or private. However, such a distinction may be difficult to draw for many types of activities.

The CRUSAP Task Force examined the potential for conflict between direct users of actuarial work (i.e., employers or clients) and others (e.g., plan members, insureds, regulators, and the like). We concluded that such potential indeed exists, and the actuary must be certain to fulfill his professional obligations in every aspect of practice. This responsibility is highlighted in the actuaries' Code of Professional Conduct. Precept 13 of that Code goes an additional step and requires that actuaries "blow the whistle," if necessary, should they encounter material, uncorrected violations of the Code by other actuaries.

Regulators, in particular, appear to be saying that if they are not able to rely on actuaries with confidence, they will devalue the profession and its opinions, perhaps entirely. A non-actuary who obviously had already made such a judgment said in his survey response that "actuaries cannot meet any [of my] needs at this time, as they use corrupt assumptions and they are for sale…." One regulator said he had encountered "extremely inadequate" loss reserve opinions. Fortunately for the profession, this view is distinctly in the minority, but it illustrates how the trust that actuaries seek and need may be lost and the actions of just a few could taint the entire profession.

Our research into current attitudes indicates that the majority view today among actuaries and users of actuarial services is that the public at all levels will expect the very highest level of professionalism from actuaries, if actuaries want to have respect and trust accorded to them and to the work they do.

There is one other way in which actuaries today serve the needs of the public that merits mention. Through The Actuarial Foundation and through the efforts of individual actuaries, there is operational today in many schools across the United States a very significant actuarial outreach program aimed at improving the mathematical and statistical skills of students. The lack of adequate math skills in students today has been well documented; it handicaps far too many young people, and it can plague them throughout life if it's not overcome.

Overwhelmingly, our survey respondents define "needs" of the public not so much in terms of practice areas or technical skills but in terms of the general public interest in the professional responsibilities of actuaries. The paramount need is for actuaries to be consummate professionals. Words such as "integrity," "reliable," "unbiased," "objective," "timely," "competent," and "clear communication" are found throughout the entire collection of responses whenever we asked about the paramount needs of the public. More emphasis on research was also suggested. Some believe there are major sources of research funding that have not been tapped.

When all the adjectives applied to the actuarial professionalism are combined, it appears that put most simply, the greatest need of the public from the actuarial profession is for informed “straight talk.”

Conclusions

Based on our survey work, input from our Advisory Panel, other interviews, our literature review, and many discussions and debates within the Task Force, we have come to the following conclusions.

First, the public’s needs are evolving and changing. It seems essential that the profession and individual actuaries within the profession meet this evolution by actively pushing out the boundaries of the profession. To thrive, a profession must be constantly adding to its knowledge base. If actuaries do not seek involvement in areas that would benefit from an expanding actuarial skill set, others will step forward. The profession will find itself left behind, and the public will be a loser, along with the profession. It seems to us that an expansionist view of the profession should prevail. We further conclude that the profession should examine additional ways to reach out to groups of professionals doing work that the profession deems actuarial in those cases where the groups are not already formally members of the actuarial profession.

Second, the actuarial organizations should support forward-looking education and public relations efforts. In most cases, the first inroads into new areas will be made by individual actuaries, but the profession as a whole should be close behind with tools, education, and/or promotional support. Occasionally, the profession should lead the way. Actuaries should insist that their actuarial organizations be aggressive in keeping up with a wide variety of business trends and innovations and in sharing this knowledge with the body of actuaries. Not all developments will have implications for actuaries, and not all efforts to expand will succeed, but even a few successes may pay handsome dividends for both the public and the profession.

Third, both continuing technical education and communication training are critical to the future success of the profession. The former keeps the profession on top of its game and maintains the special skills and abilities the profession must have to best serve the public. The latter will build the skills needed to communicate actuaries’ good work to their publics — both experts and lay individuals. The actuarial organizations must make training available and insist that actuaries keep their skill sets up to date in their chosen practice areas.

Fourth, after considerable deliberation, we conclude that more actuarial participation in the public discussions on relevant social insurance program issues, plus other matters that rely in part on actuarial topics for their conclusions, is an activity that would benefit the public and is appropriate for the profession. Such participation must be done in an informed and politically savvy way. In so doing, actuaries must strive to maintain objectivity. This is not an activity for all individual actuaries, especially when it involves providing testimony before public bodies, media interviews, or similar forums with wide exposure. For these activities, most people need initial formal training. However, actuaries will see many opportunities to speak up in smaller groups and less challenging contexts. It can be of great benefit to the public if actuaries can share informed opinions in these circumstances. The actuarial organizations must do their part to make factual, objective information on the issues readily available.

Today's world will encourage actuaries to take a broad view of the needs of the public. It is clear that the public expects actuaries to personify the highest levels of professionalism. The public expects integrity, competence, and objectivity. As summed up by one interviewee, "actuaries need to do their very best to *tell the truth!*" The education of the actuary must include sufficient ethics training to make this responsibility clear to all, and the discipline structure of the profession must deal firmly and fully with those (few) who stray from this dictate.