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The Actuary

EDITORIAL

CHANGE AND THE SOCIETY

As I visit regional and local actuarial clubs, the theme of my talks is *Change and the Society of Actuaries.* The pace of change within the Society and in the institutions with which most actuaries work is greater than ever.

There is a natural resistance to change in any organization, especially one that is operating as successfully as the Society. Change brings risk. We know the established ways of doing things have proved successful. We do not have that assurance with the new and untried.

Further, we all have a major investment in the status quo. All our training and experience have focused on the organization as it is and has been. In a changed environment, our education and experience may be less valuable.

The risks in *not* changing are much greater. Failure of an organization to adapt to a changing environment leads to stagnation and irrelevance. We must change if we are to meet the future needs of our members.

Actuaries seem to be more receptive and responsive to the need to change than most other professionals. In organizations employing actuaries, the actuaries tend to lead the change process. Our training and professional philosophy emphasize the needs of the future more than the events of the past.

Here are several areas in which major changes are underway within the profession.

1. Sections are emerging as a major element with an increasing role in Society programs and other activities.

2. The Conference is proposing a standard as to the effort an actuary is expected to devote to continuing education.

3. The Academy is establishing an Actuarial Standards Board to improve and formalize the codification of actuarial standards.

4. It is proposed that the actuarial exams be reorganized into a larger number of smaller units. This would give increased flexibility to design a syllabus responsive to the varied needs of different parts of our membership.

5. There is the basic question of whether we are developing the actuary to meet the challenges of the future. The future will require judgmental and communication skills. There may be less need for basic technical skills. If our programs do not build the kinds of skills the actuary needs to face these future challenges, we are in danger of losing our relevance.

You will be hearing much more of these proposals in the future. All are controversial. Try to understand the problems each is trying to solve. Help identify the strengths and weaknesses of each and the problems each might cause. Help improve the proposals.

Richard S. Robertson

INTERNATIONAL MATHEMATICAL OLYMPIAD

The Actuary now has much detail as to the International Mathematical Olympiad, the subject of last month's page 2 column. Specifically, we have *all six* of the mathematical problems posed to the high-school age contestants from 30 countries, the six solutions, and both individual and team scores on each of the six problems.

Only one of these problems was cited in our September article:

"Given a set M of 1985 distinct positive integers, none of which has a prime divisor greater than 26, prove that M contains at least one subset of four distinct elements whose product is the 4th power of an integer."

Compared to the other five problems, this problem from number theory proved to be more difficult than two, less so than three, as judged by the scores of all contestants. For the U.S. team, however, only two other problems proved to be harder. Four of the U.S. team members scored perfect 7s on this problem, but the other two earned only 2 points between them.

While waiting to see whether any actuaries had success with this number theory problem, *The Actuary* here poses another of the Olympiad questions, this time the very easiest (as judged by overall results). It was not, however, the easiest for the U.S. team, two of which earned exactly 0 on this problem in plane geometry.

"A circle has its center on the side AB of the cyclic quadrilateral ABCD. The other sides are tangent to the circle. Prove that AD + BC = AB."

If our readers show sufficient interest, *The Actuary* may publish the other four problems. Given time, we may recognize readers who can solve these problems, and/or begin to publish solutions. Could this be a matter we should turn over to our Competition Editor? □