



SOCIETY OF ACTUARIES

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Letters

(Continued from page 4)

estimate. Also, the excess of outgo over income in 1995 is shown as \$43.5 billion in the intermediate HCFA estimate as against the \$60.9 billion in the CBO estimate.

Mr. Hsiao recommends a number of changes to remedy the financial problem, and, in general, I agree with him. However, I do not believe that it is administratively feasible or that it is desirable to base the cost-sharing elements on an income test. Nor do I believe that the coinsurance can be variable, depending upon the provider's cost category (low, medium, and high), because it is too difficult to establish discrete categories of this type.

Robert S. Myers

Actuarial Skills

Sir:

Mr. Trowbridge in his editorial in the February 1985 issue identified two classes of actuaries — Type I with strong mathematical, technical and problem solving skills, but weak people skills. Type II are the reverse. This characterization leaves out the most important element of success and demand — business skills. I'm sure we can all think of individuals who have been highly successful, who were weak in people skills and others who were weak in technical skills. I can think of no one, however, who was successful without being strong in business skills, even though he may have great strengths in the other two areas.

The question raised is whether the society has an obligation for the members' development outside the technical area of our business. In my opinion, our primary emphasis should be towards the establishment of technical standards. The designation of FSA should denote the achievement or the establishment of a professional standard for expertise in our field, much the same as a lawyer passing the bar exam has demonstrated his legal knowledge, or a CPA his accounting knowledge. Each employer or purchaser of services of an actuary can judge whether business skills or people skills of the individual are appropriate with the needs

Annuity for the Life Expectancy

Sir:

In the November issue Robert Myers refers to Jordan and Spurgeon for proof that $a_{\overline{e}_x}$ exceeds a_x . Some may prefer the easy proof below. It should be credited to

Gerry Schnurr, now an FSA, but once a student of mine.

If we regard a_x as an annuity certain for $(w - x - 1)$ years, with payment being of dollar size $1P_x, 2P_x, 3P_x \dots$ decreasing in amount each year then the total amount paid out is $\sum_{t=1}^{w-x-1} tP_x = e_x$ which is the sum of the payments received under $a_{\overline{e}_x}$.

So while the two annuities certain have the same total payments, this total amount is payable sooner under $a_{\overline{e}_x}$ than under a_x . Thus

$$\text{if } i > 0 \quad a_{\overline{e}_x} > a_x$$

$$\text{if } i = 0 \quad a_{\overline{e}_x} = a_x$$

$$\text{and if } i \rightarrow \infty \quad a_{\overline{e}_x} \rightarrow a_x \text{ once again.}$$

For further on this see: Harry M. Sarason — A layman's explanation of the expectancy annuity. *T.S.A.* XII Page 315.

Robert L. Brown

of the particular job. Few, except for other actuaries or those who have dealt at length with actuaries, are in a position to judge technical competence.

It is clear that we do not want to draw only those individuals with a narrow technical orientation. Perhaps the literature and exam structure itself have become tilted towards that type individual at the expense of the "well rounded" individual. If so, a redirection is obviously needed. There are two steps that have been taken in the examination syllabus which may have caused this to happen. The first is the elimination of the general vocabulary and reading comprehension exam many years ago. I can think of several individuals who fit into Mr. Trowbridge's Type I who might have been dissuaded from pursuing the actuarial exams if they were faced with a vocabulary and reading comprehension exam at the start.

The second step was the elimination of essay type exams. Having served on the Examination Committee at a time when essay exams comprised the entirety of the latter exams, I fully recognize

the ease in structuring and grading a multiple choice exam. However, this type of exam required that the student be able to express himself, and to that extent broadened the education requirements.

The re-establishment of the general vocabulary, reading comprehension exam would not add a significant burden to most students. Usually little or no preparation was required. Reinstating essay exams would place a significantly greater burden on the Examination Committee. However, if the same percent of the membership participated in the Examination Committee as it did years ago, the burden per individual Committee member should not be substantially increased. If the result is a better trained FSA, it seems to be clearly worth the effort to expand in this area and should not be too great a reinvestment of time in our profession.

Darrel J. Croot

(Continued on page 6)