



SOCIETY OF ACTUARIES

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## THE E. & E. CORNER

*Ques.: Why aren't computers and computer systems on our syllabus?*

*Ans.:* Objections to having these are both philosophical and practical: (1) The computer, though so obviously important, is but a tool, not an element of actuarial theory. (2) Rapidity of EDP development would quickly make syllabus items obsolete. (3) There is no consensus on a universal computer language for actuaries. (4) Exam questions on computers would be bound to give some students an unfair advantage, conflicting with the Society's self-study philosophy. (5) There is enough exam material already without adding computers.

*Ques.: When exams are split, i.e., between Canadian and U.S. content, or between Individual and Employee Benefits, is each subgroup graded independently?*

*Ans.:* Recognizing that these exams contain questions that are common and questions that differ, our practice is first to grade each question without reference to its subgroup, then to compare the performances of the two groups of students on the common questions. Each subgroup's final pass mark emerges from combining the result on common questions with the result on those unique to that subgroup. □

## SISYPHEAN INVERTEBRATE

by Michael J. Cowell

The last item in the "Puzzle Corner" before that feature was abandoned by the *Academy Newsletter* in 1976, invited solutions to the question whether a worm, starting at one end of a magic meter stick, and crawling toward the other end at the rate of 1 cm./second while the stick expands instantaneously by 1 meter at the end of each second, would ever reach the other end.

Several actuaries sent their proofs that the worm would indeed do so; mine, based on numerical analysis, demonstrated that it would take the poor worm something on the order of  $4.78 \times 10^{35}$  years, and I posed the question whether it would have enough time to make it. This is about  $3 \times 10^{25}$  times as long as the 15 billion years that the

## Reinsurance References Needed!

The E. & E. Committee has created a Task Force on Reinsurance to improve our syllabus material on that subject.

Please tell me, at my Yearbook location, about sources that we might otherwise overlook.

Mcville J. Young, Chmn.

"big bang" theory says that our universe has existed.

Now comes a fascinating article (GEO magazine, August 1981) suggesting that time is on our worm's side. Scientists at the Argonne National Laboratory, working with their counterparts at Oxford University, probing the future, have explored proton decay to estimate that the universe will last for  $10^{52}$  years, by which time there will be no heat, no light, no matter, no anything; time itself will have ceased to exist.

This helpful information puts a new cast on such notions as "infinity" and "forever." If their theory holds water, forever, though still a long time, will be reached someday. □

## COMPETITION NOTE

by Charles G. Groeschell, CE

The first man to send in a correct solution to the January ACTUCROSSWORD was a woman, Betsy K. Uzzell. She mentioned that her lawyer-husband had helped her—possibly the first case on record of an actuary admitting having heeded a lawyer's advice.

Betsy duly sent along the name of a student who will receive a year's subscription to *The Actuary*. But Thomas A. McCrosson and Walter C. Hill, composers of the next two perfect solutions, didn't—gentlemen, please send me your nominations. And will Christopher Doyle, No. 4, to reach Milwaukee, please do the same; the reason for this uncharacteristically generous gesture is given below.

David R. Bassindale, Harold J. Brownlee and Martha B. Graham all sent solutions that contained only minor errors. Congratulations to all seven of you.

We have discovered that the vagaries of our economical mailing system make it unfair to award the winner's palm to the first correct solution to reach Milwaukee. From now on we will employ the honor system. Each entrant is, please, to show the lapsed time in days and hours—including sleeping, eating, working, play and other time—from the first look at the puzzle to its completion.

Future winners will be announced on the puzzle page just below the previous month's solution. □

## MORTALITY ESTIMATION

"Estimation of Mortality and Other Decrement Rates" will be the main theme of the 17th Actuarial Research Conference sponsored by our Committee on Research, at the University of Waterloo, Canada, on September 30, October 1 and 2, 1982.

Emphasis will be on such topics as effects of smoking and other hazards on mortality and morbidity, methods of estimating rates, mortality and morbidity models, biological aging models, and various analytical procedures. Part of the effort will be to acquaint actuaries with techniques used by biostatisticians and others whose interests overlap ours.

## Call For Papers

You are cordially invited to submit a paper. It may be of a theoretical nature, or of an applied nature such as reporting an experience study for a particular class of risks. Since the conference is a forum for discussing current actuarial research, papers on other topics will be welcomed. If you are a potential contributor, please write to the program chairman, Prof. Harry Panjer, at his Yearbook address.

## Invitation To Attend

As well as being for theoretically-minded actuaries, this conference will appeal to actuarial practitioners wishing to learn more about how data can best be analyzed. For more information, write to Prof. Frank G. Reynolds at his Yearbook address, or phone the organizers at (519)-885-1211, ext. 3646, 3010 or 3550.