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Letters

as to whether members of the CAS are truly to be counted as actuaries indicates a slightly limited knowledge of the insurance world. If such limited knowledge is fairly general among CPA's, it may explain why so few CPA's, as Mr. Gammill has indicated, make the grade as actuaries.

Matthew Rodermund, FCAS

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CRVM with Multiple Interest

Sir:

An interesting situation arises when a multiple interest rate assumption is used in conjunction with the Commissioners Reserve Valuation Method (CRVM).

Section 4.(a) of the Standard Valuation Law (SVL) defines a certain net level annual premium which is used in determining the expense allowance in the CRVM. Section 4.(a) states that this ". . . premium shall not exceed the net level annual premium on the nineteen year premium whole life plan for insurance of the same amount at an age one year higher than the age at issue of such policy."

In calculating this test premium (TP) when multiple interest rates are used I have found that there are at least two interpretations of TP. The first is that it is the net renewal premium using the Full Preliminary Term Valuation Method for the 20 payment whole life plan issued at the same age for the same amount of insurance. An argument for this is that it is the intent of the SVL that the maximum expense allowance for the CRVM be limited to that for the 20 payment whole life plan. The second interpretation defines TP as the net annual premium for a 19 payment whole life plan issued at an age one year higher for the same amount of insurance. An argument for this is that this is what is literally stated in the SVL.

If a level interest assumption is used then these two interpretations yield the same result while multiple interest assumptions can yield different results. As a specific example assume dual interest rates where the first rate holds for the first 20 policy years and the second rate holds for all later policy years. The first interpretation uses 19 years at the initial rate while the second interpreta-

tion uses 20 years at the initial rate. This problem of interpretation is probably of little practical concern since sample calculations indicate a difference in reserves of about 10 to 20 cents per $1,000 amount of insurance. It appears that the same question of interpretation arises if a select mortality table were to be used with the CRVM.

I am curious as to whether any of your readers have come across this situation and if so how they have interpreted the definition of the CRVM when using multiple interest rates.

Robert G. Salinger

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Reasonable?

Sir:

Here is a thought I have had in mind for years.

It is common, in Jordan's "Life Contingencies", after a mathematical proof, for the problem to be stated in the form:

"Prove the proposition by general reasoning"; e.g., that

$$\ddot{a}_x : \overline{n|} + {}_{n|}\ddot{a}_x = \ddot{a}_x$$

Is not algebra "general reasoning" in symbolic form? Therefore, an algebraic proof is "general reasoning." Ergo, the alternative proof Jordan has in mind should be stated: "Prove by *verbal* reasoning - - -".

James H. Durkin

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Alternate Route

Sir:

I heartily approve of the present examination system, and I am grateful for it. All candidates who pass the same examinations in the same examination sessions are assured of having met the same standards of achievement. This arrangement has rewarded actuaries with professional prestige through the years. Lawyers appear to have been equally successful through the bar examinations and certified public accountants through their examination system. Cast my vote with those of other young fellows favoring the examinations. If I can pass, anyone can—anyone who tries hard enough.

Orrin Tovson

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THE COMPUTER'S SEAMY SIDE

Donn B. Parker, *Crime by Computer*, Charles Scribner's Sons, New York, 308 pp., $10.95.

by Robert J. Johansen

If you have from time to time become concerned about the security of computer programs, records and transactions, this book will give little comfort.

While its emphasis is perhaps aimed at entertainment, the citations of actual cases and the somewhat detailed accounts of methods used by perpetrators of computer crimes will at least provide you with food for thought and perhaps persuade you to take a look at your own computer security. Methods in which the computer's own operating system was used to the advantage of the criminal are intriguing and alarming.

Although not strictly a computer crime, the Equity Funding operation is also described by the author.   □

Social Security Notes

What Am I To Believe About The Social Security System? Bankers Life Company, Des Moines, Iowa, pp. 12.

This paper, written by the former Chief Actuary of the Social Security Administration, Charles L. Trowbridge, for general public consumption, is an impartial presentation consisting of two parts: The Present System-Strengths and Weaknesses, and, Financing Problems-Present and Future.

For free copies write to Consumer Services, SS2, The Bankers Life, Des Moines, Iowa, 50307.

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Statistical Supplement, 1975 Annual Report of the U.S. Railroad Retirement Board, U.S. Railroad Retirement Board, 1975, pp. 128.

This report contains detailed statistical data on the operations of the railroad retirement and unemployment systems for fiscal years through 1975. The report is divided into the following four sections: A, Financial Statistics (for both the railroad retirement and unemployment systems), B, Retirement and Survivor Statistics, C, Unemployment Statistics, and D, Employment and Compensation.

Copies of this report may be obtained free from the Railroad Retirement Board, 844 Rush Street, Chicago, Ill. 60611. □