The Actuary

February 1971 – volume 5 - Issue 2

The Actuary
The Newsletter of the Society of Actuaries
VOLUME 5, No. 2 FEBRUARY, 1971

ACTUARIES CLUB OF TORONTO

by J. Ross Gray

It is interesting to see matters come full-cycle, and this time it is the oldest (I believe) Actuaries Club becoming the youngest. Perhaps there is a lesson to be learned, that when things become too large and formalized, they no longer fulfill all the needs of their members.

Seventy-four years ago steps were taken to provide opportunity for informal meetings and discussions among Toronto actuaries. The inaugural meeting of The Actuaries Club was held on 12 February 1907. The original membership seems to all have been from Toronto, but members were added from London and Waterloo, and a few from Winnipeg, Montreal, and Halifax, and probably elsewhere.

Expansion in numbers occurred, and it was felt that we should take ourselves more seriously, so in October 1946 the Canadian Association of Actuaries replaced The Actuaries Club. Members of the Actuaries Club of Winnipeg were automatically included also. There was no suggestion that the membership be limited to Toronto, or even to Canada, the only requirement being that one be a Fellow or Associate of one of the established actuarial bodies.

As part of the effort to obtain accreditation, the Association was replaced in March 1965 by the Canadian Institute of Actuaries, which covers all of Canada and permits membership from abroad. It has now grown to a total Membership of 684, plus 153 Students and 53 Correspondents, as at 8 October 1970.

To this writer, the Canadian Institute is now showing the problems that also beset the Society of Actuaries. It is too big, one does not get to know new members, one is losing touch with old members, its meetings are tending toward

(*Continued on page* 8)

CERTUM EX INCERTIS

Institute of Actuaries Students' Society, *Actuaries and Financial Planning*, Butterworth, London, 149pp., £ 1.50.

by Ardian Gill

"The actuary is an enigmatic figure. It is believed that he is highly paid . . ." A book that begins this well has a large promise to keep. And it succeeds. *Actuaries and Financial Planning* is not devoted to the best use of that fat pay check. Rather, "this book aims to give an account of what the modern actuary does, and the way in which his work has developed from restricted beginnings to an essential part of the world of financial planning." The work of a group of young British actuaries, this pleasant little book is directed primarily to non-actuaries in the financial world.

It begins with the origins and development of the profession, explains the essential nature of the actuary's work, describes how insurance institutions evolved and relates the role of actuaries in life insurance, consulting, government, investments and other fields. Although seven authors contributed to the book, the writing is even and generally entertaining. We learn that the first known form of life insurance appeared in Lanuvium in 136 A. D. For an initial premium of 100 sesterces and a flagon of wine and five asses annually, one could assure himself a decent burial. (Do "cover" and "coverage" derive from the act of burial?) We are told that the reason an "actuary is an enigmatic figure" is that the tools of his trade (probability and compound interest) are unfamiliar to the world at large, whereas an architect, say, does not have to detail the use of bricks and mortar when talking to a layman about his profession.

Nathan Detroit's "permanent floating crap game" is used to help explain mathematical expectation; Hamlet and

(*Continued on page* 7)

NEW YORK EXPENSE LIMITS

by John K. Booth

On September 24, 1970, the New York Actuaries Club sponsored a panel discussion on the need for revision of the New York Expense Limitation Law, Section 213, in the light of its history and purpose. Abraham Hazelcorn acted as moderator of the panel composed of Milton J. Goldberg, Jacob S. Landis, Daniel J. Lyons, and Anna M. Rappaport. The views expressed by the panelists are their own and do not necessarily reflect the views of the organizations with which they are associated.

Daniel J. Lyons

Mr. Lyons opened the discussion by summarizing the history and purpose of the New York Expense Limitation Law. The original version of Section 213 was enacted in 1906 following the Armstrong Investigation and was designed to curb the expenditure of unreasonable sums for new business. The law limits first-year commissions, other field expenses, and total company expenses and in addition includes specific limitations on renewal commission rates and collection fees. Companies are prohibited from paying either bonuses or additional commissions or compensation based on volume of new business. There is a further prohibition against making loans or advances except against first year compensation. The law makes special provision for the payment of limited training allowances to new agents and subsidies to new general agents. Subject to the approval of the Superintendent of Insurance, a company is permitted to adopt a plan of compensation other than commissions, provided appropriate charges are made against the first-year and field expense limits as required by Section 213. Some companies have used this section to develop salary plans for agents.

(*Continued on page* 4)

Certum Ex Incertis

(*Continued from page* 1)

"the sudden onset of mortality which invaded Elsinore" help make a point about random fluctuations. We are reminded that Mrs. Warren (of another profession) had a daughter who did "actuarial calculations." In another context we learn of the Italian, Cardano, who calculated his own life expectancy and saw to it that he expired on schedule, our first martyr.

We discover that the word actuary (from Actuarius, the keeper of the proceedings of the Roman Senate) was revived by an antiquarian named Mores (O Tempora!) who bestowed it on the secretary of the first life insurance company, the Equitable Life Insurance Society. This same chapter, alive with the illustrious (Price, Dodson, deWitt, deMoivre, deMorgan, Babbage) is the only one where my interest flagged. It did what it was supposed to do, but it told me more about the Institute of Actuaries than I cared to know. Still, it was interesting to learn that the Institute was formed by the actuaries of the "newer offices" while the older members of the profession formed a club (*plus ça change* and all that).

We read of the "explosion of new companies" in Britain, we learn of the problems of valuing reversions, leaseholds and banana plantations, that in most British companies the investments are managed by actuaries, who indulge in things like "switching of bonds," that the Financial Times has an Actuaries Share Index, composed of 600 stocks, that has the status of, say, Standard and Poor's 500 here. The book tells us about the old Dividing Societies, where profits were whacked up at year-end, which gives us our word dividend; it covers group insurance, pension funding, computer usage, how actuarial techniques have been applied to personnel problems, oil field drilling and similar non-life applications, since "in recent years there has been a growing awareness among the managers of non-life insurance that there is room for improvement in the statistical basis of their business." In addition to such British understatement, the book teems with common sense, abjuring us "to prevent the investigator from drowning in a paper sea of computer output..." All of this is in terms comprehensible to the layman, a truly splendid achievement.

Social Security Note

No. 11-1970 Magnitude and Frequency of Physicians' Fee Increases for Selected Procedures, December 1965 - December 1969.

In 1965 the Social Security Administration arranged for the collection on a continuing basis of fees for three surgical procedures and two in-hospital medical services that are significant for, but not necessarily limited to, older persons. Data on the percentage of physicians increasing their fees and the average percentage increases for these procedures is also collected.

The chapter an American reader will probably find the most novel is one called *Serving the State*, wherein the author describes the role of "Government Actuary." The Government Actuary's Department (GAD, sir!) was set up to "deal with all actuarial questions on which advice is required from time to time by other departments so that there is one, central, source of actuarial advice for all aspects of Government." One yearns for such a department in Washington. The GAD deals in tithes and corn rents, feu duties and the future number of veterinary surgeons. He is a member of the Gaming Board, helps the Girl Guides project their membership and worries about Common Market problems where state plans must mesh with those of a country which preaches "freedom with publicity"; he has to put his mind to the problem of "Government officials of the colonies who have lost their jobs"; he is deeply involved in the many problems of *notionally* funded pension schemes. What's that? I've been substituting the word "plan" but the British use "scheme" which seems better to describe these whimsical arrangements. A *notionally* funded scheme is one with income (contributions) and outgo (pensions). The difference between the two disappears, is swallowed up in general government expenditures, but with typical British fastidiousness, this difference is kept account of. Thus one has a notion that there is a fund built up. One of the actuarial problems cited is how much to charge a non-participating employer for a contribution to the non-existent fund if he borrows an employee covered by the scheme. Presumably it depends on the funding scheme we are not using, entry age abnormal, for instance. The situation becomes positively Gilbertian. Though there are no assets to invest, the very notion of a fund cries out for the notion of interest. And so it is credited with it, usually at a low rate, since it is the Government which must pretend to pay it. This is considered unfair by certain of the pensioners who have some notions of their own and want new money rates along with common stock participation. A fair enough demand, but what stock shall the Government pretend to buy? The Actuaries' 600 will provide an index to please the pensioners, but if the Government has the notion that it has invested entirely in failing ventures, then it will lose a great deal of the pensioners' money while saving a bundle of its own. There ought also to be the notion of a variable annuity option, a subject worthy of the talents of the Fraser, Miller, Sternhell *troika*.

While the idea of a *notional* fund seems fanciful at first, it seems fitting, finally, that a profession which began with games should devise such an engaging one on a national scale. And it seems fitting that it should happen in Britain, where our profession began.

The book is very British, and this may be a drawback for American readers. One wishes they'd hasten to the decimal system so that the numerical examples would be less boring. And who is ERNIE who selects the winning premium bonds? With trivial exceptions like these, I liked everything about the book, its style, its length, its down to earth way of putting things, e.g. "The actuarial profession is undeniably hard to enter, and seems decidedly inhospitable at times . . . " It fulfilled its wish "that the image of the unworldly arithmetician has been demolished, in favor of the more robust image of the practical businessman."

But how shall a book end that begins so well? Why with that lovely but complicated quote from Bacon which serves as the motto of the Institute —

"*I hold every man a debtor to his profession, from the which as men of course do seek to receive countenance and profit, so ought they of duty to endeavour themselves by way of amends to be a help and ornament thereunto.*" □