

## REVIEWS

*Life, Death and Money — Actuaries and the Creation of Financial Security*. Edited by DEREK RENN (Blackwell Publishers Ltd., Oxford, 1998)

This book has been produced to be one of the items marking the 150th anniversary of the actuarial profession in the United Kingdom in 1998. Its aim is not to produce a definitive history of the profession, nor of the Institute of Actuaries nor of the Faculty of Actuaries, but rather to describe the work of actuaries past, present and even future, by explaining how what they do contributes to the social, financial, legal and regulatory developments in our society.

The book takes the form of eleven essays, and there is much information in them, concentrated into 217 pages. Each essay covers a different aspect of actuarial development and work, although, as we should expect, there is a certain amount of overlap and cross-referencing between subjects. The authors, a selection of eminent actuaries, who have been involved in actuarial matters and in the industry for many years, have each written about an aspect of actuarial work where he or she is an expert.

The introductory chapter is written jointly by Duncan Ferguson and Paul Grace, who were, respectively, Presidents of the Institute and of the Faculty when the book was published. Having a title for their chapter: 'Actuaries make Financial Sense of the Future', which is the slogan used by actuaries to mark the 150th anniversary, they give a clear description of the basics of what actuaries are and do.

In the second chapter, 'Earliest Days', Chris Lewin summarises how the insurance principle began and developed from marine insurance and later from life insurance, and how life insurance became more scientific. Next, Jillian Evans, in 'Mortality, Behold and Fear', gives a comprehensive review of the development, over more than two hundred years, of the methods of collecting and analysing data to produce mortality tables to be used for actuarial purposes. She also describes what the Continuous Mortality Investigation Bureau has done since it was set up in the early 1920s, and considers the calculation of morbidity tables.

The next chapters: 'Friendly Societies', by Lawrence Eagles; 'Actuaries and Life Insurance', by Ronald Skerman; 'Occupational and Personal Pensions', by Stewart Lyon; 'Social Security and Demography', by Colin Stewart; 'The Actuary and General Insurance', by Graham Lockwood; 'Life Underwriting and Reassurance', by Desmond Le Grys; and 'Managing the Money', by Bill Abbott; deal with the various aspects of actuarial interest and work in more detail. Each author shows how his area of expertise came into being and how it has developed over time, with the ever-changing pattern and requirements of society and of the law and regulation. The actuarial input into each area is described, and emphasis is given to those times and situations where actuarial participation has been able to improve matters and to help to solve problems.

Of these seven chapters, that on life insurance is, of necessity, the longest, because it has been, for a long time, the pivot from which other actuarial areas have developed. The author examines the complexities of scientific life assurance in some detail. The two chapters that cover the various aspects of pensions provision are very much inter-related. The titles of the next two chapters more or less speak for their contents, whilst 'Managing the Money' covers the work of investment actuaries, of financial economics and of asset/liability management.

The final chapter, 'The Future of the Actuary', by Chris Daykin, looks forward, first to the areas, described in earlier chapters, where actuaries already have a considerable influence, but where more or different work is bound to involve many of the profession in the future. The author then considers 'wider fields'; areas where actuaries are beginning to have an impact or might have an impact in future, if they are prepared to take up the challenges.

Although the book is relatively short, the information that it contains is considerable and concentrated. The authors have written clearly and have tried to make what they have written understandable and with explanations where needed. This has succeeded most of the time; only occasionally does the amount of detail take over. It is excellent that there are extensive lists of suggested further reading, with just an occasional error and variety of style.

For whom is the book written? It has been stated that it is intended to introduce the profession to lay people. The kinds of lay people who are likely to read it are those who are prepared to read carefully, who are interested in the actuarial profession and what we do, and who may have some knowledge of the insurance industry or belong to related professions. To most people who ask "What does an actuary do?" the first chapter should answer their question. If they want to know more, then the rest of the book is on offer.

However, I think that every actuary or potential actuary should have a copy. We have become specialists in our own areas of actuarial work, so that there are some who will know little about other areas beyond what they had to study to pass their qualifying examinations. The book also shows us how the position of actuaries and their work has developed from what has happened in the past, something that we should never forget. We owe so much to those who have gone before us and who have developed both the theoretical and the practical sides of actuarial work. As far as the future is concerned, some useful suggestions are given as to what directions we could expand into, and this might encourage younger actuaries to widen their horizons.

A. D. HART

*Medical Aspects of Personal Injury Litigation.* Edited by MICHAEL BARNES, BILL BRAITHWAITE and ANTHONY B. WARD (Blackwell Science, 1997)

A number of actuaries are involved in assisting the legal profession in the quantification of amounts of damages in personal injury cases. Actuarial evidence has historically not always been popular with the Judiciary, in part because of the perceived inability of actuaries to explain technical aspects of their work effectively in written and oral testimony. Reports are, however, now routinely requested by Counsel in the majority of significant cases. This book, whilst written primarily for lawyers, is, however, of interest to any expert witness involved with personal injury claims, whether they be acting for the plaintiff or for the defending insurance company.

This text will give interested actuaries an appreciation of the broader issues involved in a personal injury claim and the type of evidence that is likely to be introduced from other expert witnesses involved in the case. The book takes the form of a number of individual sections on various aspects of the claims process. The contributors include medical specialists involved in neurological rehabilitation, surgeons, occupational therapists, psychologists, paediatricians and an experienced barrister.

The actuary instructed to quantify lost earnings, pension rights or the cost of long-term care for the seriously disabled will need to ensure that consistency is achieved between his own assumptions and those supplied by other experts, particularly as regards employment prospects and life expectancy.

Chapter 1 gives a useful overview of litigation practice, including some guidance as to the treatment by the Courts of certain financial aspects of the claim and, importantly, a section on the choice of a suitable financial basis for the calculation of prospective loss amounts. Chapter 3 gives useful pointers on the appropriate format of medical reports, which have wider application, and on the giving of evidence in Court. Chapters 2 and 5 to 8 cover clinical outcomes and rehabilitation prospects following brain, head and back injury, which will be useful for the actuary reading such reports as part of his own familiarisation with the case and in the framing of his own assumptions. The chapter devoted to life expectancy is, perhaps, the most important for the actuary involved in work of this type. Professor Barnes covers the important risk factors which might predispose individuals to shorter than average lifetimes, and, in addition, he reviews the specific factors involved in cases of cerebral palsy and spinal cord injuries, supplying abridged tables of life expectancy where possible.

Whilst some of the comments made about financial and statistical methods can be inclined to make the technical reader wince, this would be to ignore the appeal of the text to the actuary involved with this type of work. It serves as a useful reminder that the actuary is just one of many experts involved in personal injury cases, and that consistency of approach and clarity of presentation is always important. The well-referenced sections on life expectancy in cases of severe disablement are of particular relevance.

J. POLLOCK