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# The Actuary

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## EDITORIAL

### GENERALIST TO SPECIALIST

As the world becomes ever more complex, the sum of knowledge within the domain of any profession grows, probably exponentially. It becomes all but impossible for any professional, however qualified, to keep up in all areas; so the physician becomes an internist, a urologist, or a pathologist; the lawyer a corporate counsel, a tax attorney, or a trial lawyer.

Perhaps the actuarial profession has been slower than others to recognize this seemingly inevitable transition. Many of our older members grew up with the concept that an FSA is fully qualified in all areas of actuarial endeavor, and resent the fact that no one can stay current in all areas of actuarial interest (and that in the pension area the federal government decides who is qualified). Actuaries of a younger generation seem more than willing to embrace a narrow area of actuarial activity, perhaps hoping to make their mark as an 'expert' in a limited field.

It is not the intention here to take sides in what may appear to be a generalist versus specialist argument. Rather it is the intent to trace the events of North American actuarial history that mark the development of actuarial specialties. We distinguish those events that came from outside of the organized profession from those that went on within it.

In 1914 the Casualty Actuarial Society was formed, in 1916 the Fraternal Actuarial Association, and in 1950 the Conference of Actuaries in Public Practice. In each case some group of actuaries, perceiving their interests as different from those of actuaries employed by life insurance companies, formed a separate, more specialized, actuarial organization. Thus were the early actuarial specialties defined, essentially by type of employment.

Within the Society the first concern for the specialist was evidenced by the appointment in 1957 of a Fields of Activities Committee, charged with identifying 'fields' of actuarial work and seeing that the needs of each were met.

In 1964 came the Fellowship exam fork, with one branch leading to I (insurance and the other to E (employee benefit plans). In 1970 the Continuing Education Committee was reorganized into specialized sub-committees. Special topic Spring Meetings began in 1971. Each of these developments, once started, continued.

In 1979 the Board of Governors took what may be the ultimate step, authorizing the formation of specialized Sections within the Society. The first was the Health Insurance Section (1981), followed by five others identified in the 1984 Yearbook, and by one or two more now in the process of formation. It is the present plan to organize much of the program of the Society around Sections. When this gets done, we will see the day when actuaries, like other professionals, are more often specialists than generalists.

Those of us of an earlier generation may not be comfortable with the direction our profession has taken; we may also realize that the trend toward specialization is likely to prove irreversible. Still there must be some who have a firm grasp on the totality of actuarial endeavor (see Letter from Charles Siegfried in this issue). From these our future leadership is likely to come.

C.L.T.

## LOSS DISTRIBUTIONS

Robert V. Hogg and Stuart A. Klugman (Authors)  
 John Wiley & Sons (Publisher)

*Reviewed by Charles C. Hewitt, Jr.*

This book fills a need which has long existed in actuarial literature. Interestingly enough, the lessons learned here are applicable not only to property and liability insurance but to life and accident/health insurance as well. All insurance contracts (and even most self-insurance schemes) involve a limitation of payment for (single) losses. These limitations commonly take the form of either deductibles (or retentions), policy limits or some form of quota share or co-insurance. "Loss Distributions" provides a mathematical (actuarial) methodology for placing a relative value upon such loss limitations by showing how to construct workable analytical models of loss distributions and then how to apply them.

The first chapter of the book discusses the various types of loss limitations in non-mathematical terms and explains the need for and the general approaches to size-of-loss analysis. The second chapter discusses models for random variables and generalized mathematical approaches to fitting loss distributions. The third chapter discusses statistical inference with respect to such distributions. The fourth chapter makes use of the foundation laid in the previous chapters to fit real size-of-loss data to probability distributions; and demonstrates the testing for goodness-of-fit. The final chapter discusses specific applications to typical insurance situations and demonstrates methods for obtaining the relative value for deductibles, limits and retentions. Included as an appendix is an excellent summary of key mathematical distributions which can be used to fit real life size-of-loss situations.

The book was produced under the joint sponsorship of the Actuarial Education and Research Fund and the Casualty Actuarial Society and contains the imprimatur of both organizations. It fills the need for a systematic definition of techniques which can be used in the analysis of loss distributions. It is expected that this text will be an authoritative work on this subject and will be required reading on the syllabus of the Casualty Actuarial Society. □