

## REVIEWS

### CASUALTY ACTUARIAL SOCIETY

The 1960 Proceedings contains a Presidential Address by William Leslie, Jr., ten technical papers, the reports on eight seminar discussions and a number of reviews and discussion of papers.

*Two Studies in Automobile Insurance Ratemaking* by ROBERT A. BAILEY and LEROY J. SIMON.

This important paper was reproduced in Volume I of the ASTIN Bulletin (p. 192).

*The Negative Binomial and Poisson Distributions Compared* by LEROY J. SIMON.

As a basis for comparison of the two distributions, the paper develops the first four moments of each distribution and then compares their kurtosis and skewness. The result is that the negative binomial is always more skewed to the right than the Poisson distribution and also, it is shown, that the negative binomial is always more peaked than the Poisson.

Some interesting observations are also made as to the choice of which distribution best fits the needs of the user. The observations are made with respect to the data at hand also to applications in the automobile and casualty insurance areas.

*Any Room Left for Skimming the Cream ?* by ROBERT A. BAILEY.

The title of this paper refers to the problem of determining the effectiveness of a rating system, and asks whether the classifications employed in the United States are sufficiently detached to prevent selective underwriters from taking all the better risks away from the companies who are more normal in their acceptance of risks.

This paper attempts to measure the effectiveness of the rating system used for automobile liability insurance by comparing the coefficient of variation (the standard deviation divided by the mean) of the rates with the coefficient of variations of the risks.

The data used, was taken from the California Driver Record Study, and statistics relating to the merit rating plans in force in Canada, Texas and Pennsylvania. The following conclusions were drawn:

- (1) The present multiple classification system takes care of only half of the total variation among risks.
- (2) The introduction of merit rating has not eliminated the need for careful underwriting and has not eliminated the opportunity to skim off the cream through more effective rating plans and underwriting selection.