

## RATEMAKING PROCEDURES FOR AUTOMOBILE LIABILITY INSURANCE

PHILIPP K. STERN

VOLUME LII, PAGE 139

### DISCUSSION BY STANLEY DORF

Mr. Stern's review of automobile liability insurance ratemaking procedures used by the major rating organizations updates his previous paper on the same subject by reflecting some of the more important ratemaking modifications of the past ten years. This admirable revision, intended as before to introduce the fundamentals of a complex subject, is no patchwork product but a thorough reformulation of the subject. It is clearer and more logically organized than the original essay, which was itself a highly valuable contribution to the *Proceedings* of the Society. The paper will, I feel sure, be read with profit both by actuarial students and those non-actuaries who would gain some insight into the automobile ratemaking mysteries.

In general, the revised paper is both more detailed and yet, paradoxically, easier for the reader to follow. Explanations of many terms previously undefined (such as "fleet" and "non-fleet," "basic limits," etc.) are now presented as they occur in the text. A separate section has been introduced to deal with the more difficult concepts of ratemaking. Mr. Stern considers the actual formal rate filing only after an extended presentation of the reporting and summarization of individual company statistics, on both the accident and policy year bases. Important recent ratemaking developments, including package automobile policies and the new private passenger classification and rating system are discussed in detail, although the Safe Driver Insurance Plan is barely mentioned.

Mr. Stern has limited his paper to a description of automobile rate-making methods in use today. One wonders whether this approach is sufficient for the inquisitive student who needs to know why as well as what. The paper itself presents two convenient examples:

1. The main rationale for Mr. Stern's complete revision of his earlier paper is that the rating organizations have substituted the accident year for the policy year approach in private passenger and commercial automobile ratemaking. Surely certain questions will disturb the student: What were the advantages of adopting the accident year method? Was anything lost in the process?

2. In an appendix, the paper outlines some features of the new private passenger classification and rating system, now effective in many states. The student may well ask how a plan with some 4,900 distinct rating classes in each territory necessarily represents an improvement over the more simplified classification system described in the body of the paper.

Ratemaking procedures are continually changing. If Mr. Stern had shown, in even a cursory way, how some of these procedures developed, the student would more fully understand the mechanics of the ratemaking process itself.

Neither Mr. Stern's original paper nor his revision pays sufficient attention to the expense portion of the rate structure. Probably this is due largely to the fact that the rating organizations themselves review these items less closely than loss experience in their rate filings. Nevertheless, it has always seemed surprising that so much care has been taken in the precise determination of losses, while expenses and profit, which together account for one-third of the premium dollar, have been treated in so relatively casual a manner. The paper observes that "the expense ratios can be obtained from the Insurance Expense Exhibit, which shows separate amounts for the various categories of expense." Mr. Stern's study, however, of the 34.5% currently required for expenses and profit, reveals that the production cost allowance accounts for 20% of the total, and this item "is generally not based on the past experience from the Insurance Expense Exhibit." (Production cost is considered a "budgetary" provision, an unclarified term which may confuse the beginner.) The 5% provision used in most states for underwriting profit and contingencies is obviously unrelated to Insurance Expense Exhibit results, while the 3% for taxes will vary more as a result of individual state requirements than because of countrywide expense averages. This leaves General Administration and Inspection and Bureau expenses, or 6.5% of the total expense loading, which are actually subject to adjustment via the Insurance Expense Exhibit.

Among the new developments discussed at some length is the rating organizations' method for measuring loss cost trends. That trend factors represent the only area of the ratemaking process where an extrapolation from actual loss data is found necessary might perhaps have been made clearer to the reader. Here, again, some statement of the underlying reasons for the use of such a mechanism would have been helpful. Does the use of trend factors in excess of unity rest upon the more fundamental assumption that inflation will be with us for a long time? Would rating

organizations continue the use of such factors for any length of time if average paid claim costs fell sharply while the consumer price index continued to rise? If, as a result of the awakened public interest in automobile safety, there were a noticeable and continuing reduction in highway accidents, would it not be equally proper to introduce a claim frequency trend factor?

I observe that if Mr. Stern had treated the subjects that make up most of my comments on his essay the paper would have been longer than it already is. This is more a reflection of the vastness of the subject than a criticism of Mr. Stern's fine work. In what he set out to do, namely, to present a clear, comprehensive description of current automobile liability ratemaking procedures, Mr. Stern has been eminently successful.

#### DISCUSSION BY JAMES F. GILL

Mr. Stern's paper is a complete revision of his paper, "Current Rate-making Procedures for Automobile Liability Insurance," presented at the November meeting in 1956. The author is to be complimented; he has prepared an excellent paper which will be of tremendous value to the student as well as others not familiar with automobile ratemaking procedures.

Mr. Stern explains in the Preface that his paper has the same objective as his previous paper in that it is a description of the ratemaking process rather than an evaluation. The paper clearly indicates the author's comprehensive knowledge of the subject, and because of his thorough knowledge of this subject he has inadvertently not clarified some of the procedures, at least for the student. My remarks involve only some questions that might occur to the student.

The author states in the Introduction that many non-bureau companies use rates promulgated by the bureaus, frequently on the basis of a percentage departure. Mr. Stern then states that apparently such filings are supported, though by means different and presumably less exacting than is required of rating organizations. The student may wonder if this is so and why it is so.

It might be well to note that eight industry organizations, including the rating bureaus and the major trade associations, drafted a memorandum in August of 1947 setting forth recommendations on important points with respect to the administration of the Kentucky Casualty and Surety Rate Regulatory Law which became effective October 1, 1947. The memorandum in part states: