

CREDIBILITY OF 10/20 EXPERIENCE AS COMPARED WITH 5/10 EXPERIENCE

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DISCUSSION BY M. BONDY

Lew Roberts has tackled a difficult and important problem with great resourcefulness, making maximum use of a limited quantity of data. The results at which he has arrived provide an excellent general guide to the reliability of excess limits experience and the method evolved should go a long way toward providing the answer to a similar question with respect to General Liability experience. Such guides will be useful to company actuaries in evaluating individual company experience as well as to Bureau personnel in the making of rates.

One question, however, has been raised in my mind with respect to Mr. Roberts' conclusion that "the credibility of 10/20 experience should be somewhat less than 85%, perhaps 80%, as great as the credibility of 5/10 experience." I shall lead up to this question of furnishing a hypothetical example:

Let us suppose that in a given territory, we have just enough experience to warrant 100% credibility on a 5/10 basis. It is now decided to take into account 10/20 experience. Statistics have indicated that for New York private passenger autos, the 10/20 pure premium is split about 87-13 between basic and excess limits. However, we may take as a point of departure the division indicated in the excess limits table of 5/6 — 1/6.

If 10/20 experience is used and the credibility suggested by Mr. Roberts applied, the credibility of this territory's experience would be 80%.

If, alternatively, the experience is split into layers of 5/10 and excess over 5/10, the experience of the territory would be followed to the extent of 83 1/3% on the average even if the excess limits experience received no credibility at all.

I am wondering whether this idea of division into basic and excess layers might not be more easily understood and accepted than would an apparent reduction of overall credibilities caused by the introduction of high limits experience.

A final word on the subject of credibility appears in order at this point. One is occasionally confronted with solutions to the question of how much credibility a given body of experience warrants. However, the complimentary question is often, if not always, left unanswered. "To what shall we apply the (1 — Z) factor?" At times it seems to me that while we are reluctant to give more than, say, 40% credibility to a given body of data, we blithely assign the remaining 60% to a statistic which is not at all reflective of the attribute which we are attempting to measure.