## LOSS RESERVE TESTING

## AUTHORS' REVIEW OF DISCUSSION

We would like to begin our comments by thanking Mr. Skurnick for taking the time to prepare such a thoughtful review of our paper. In general, we agree with this review. The technique he suggests for organizing the data to overcome the problem of "variance" claims should have merit with many reserving techniques. It will be interesting to see what further steps will be taken to obtain data in this format.

Basically, in his review Mr. Skurnick contrasts our methodology with a different technique described by Mr. R. T. Sampson in the 1959 *Insurance Accounting and Statistical Association Proceedings.*<sup>+</sup> This technique relies on two basic assumptions concerning claim settlement behavior, and Mr. Skurnick accepts them in stating that Mr. Sampson's technique will produce as reliable an answer as our methodology. These assumptions may certainly be valid for some fast-closing lines of business; however, without questioning Mr. Sampson's basic approach, we do question whether these assumptions are valid today for certain slower-closing lines of business. We feel our methodology provides an opportunity to test and compensate for any departures from these assumptions.

Their two assumptions are as follows:

(1) A speed-up in the claim settlement pattern means that the same claims are simply settled earlier than they previously were but for the same amount of money. This, of course, means that the amount of a single claim payment is independent of the length of time taken to settle the claim.

(2) If the average claim settled, say, in the zero to twelve-month age group is increasing at a particular rate from report year to report year, then it is reasonable to assume that the ultimate average claim for the entire report year will increase at the same rate. In other words, that the same factors affecting the small, easily settled claims equally affect the high-cost, longterm claims.

We believe these assumptions may not be valid for some lines of business, in particular the major liability lines.

As for the assumption on the disposal rates, many things could cause them to have an effect on the average amount paid. For example, negligence

<sup>&</sup>lt;sup>1</sup> Richard T. Sampson, "Establishing Adequacy of Reserves on Slow Closing Lines Use of Paid Formulae." *Insurance Accounting and Statistical Association Proceedings*, 1959

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law is heavily influenced by previous decisions on similar cases. In recent years, our increasingly consumer-conscious society has established new case precedents at a rapid rate. The presence, or absence, of a particular precedent can heavily influence the non-economic portion of a liability settlement. Hence, settling a case sooner means fewer potentially damaging precedents exist. Second, inflation itself must have some impact, for even though the economic loss may be the same, jury attitudes may be influenced by their present circumstances when making awards, awards which on the long-term cases may involve permanent disabilities, and thus current wage rates and a higher general cost of living. For example, put yourself in a claimant's position. You have suffered a \$1,000 economic loss and you settle one year after the accident for a total of \$2,500. We believe that this "extra" \$1,500 might vary with the time elapsed before settlement. Would you have taken a total of \$2,000 if they had settled with you at the time of injury? or what if you couldn't settle for five years? Would you, and your lawyer, still take the same money?

Concerning the claim cost assumption, we have observed in our data that the percentage increase from report year to report year is different for the quickly settled claims than for the more slowly settled claims. Independently, our colleagues in the United Kingdom found the same phenomenon in their data. The reasons for this are undoubtedly complex, but just the fact that the quickly settled claims are basically different types of claims could allow this to occur. These quickly settled claims are highly economic in nature, while the long-term cases are heavily influenced by jury attitudes and higher liability limits and levels of retention.

This situation brings one to Mr. Skurnick's analogy on counting sheep. We think the legs should enter the picture. In our local butcher shop, a sheep does not have four legs—it has two legs and two shanks. You buy them one at a time, and because of this, the ever-rising price of meat can be seen to be going up at a different rate for the legs than for the shanks.

In conclusion, it doesn't really matter why there is, or at least can be, a relationship between speed of claim settlement and size of payment, and, that different types of claims can be experiencing different rates of inflation; it matters that this does seem to exist. Organizing your data as we have outlined will enable you to know if the patterns we described are occurring in your data. If these patterns do seem to fit your particular situation, we feel our approach will afford you a good, alternative technique to complement your present reserve tests.