

DISCUSSION BY JOHN D. NAPIERSKI AND J. B. REINBOLT

We are coming to realize more and more each year that Homeowners ratemaking is a very complex subject. Mr. Walters has clearly illustrated this complexity in his paper on Homeowners Insurance Ratemaking. He has presented his concepts and the I.S.O. ratemaking procedures in such an excellent manner that even an uninitiated reader could follow, from step to step, the determination of the Indicated Rate Level Change and its distribution by deductible option and territory.

A complete disussion of every theory and procedure Mr. Walters has covered in his paper would, based on our experience, result in a review many times the length of the paper itself. Thus, we will restrict this discussion to only a few major items. First, and probably most important to the entire discussion, is the need to point out the difference between ratemaking from a rating bureau standpoint and from an individual company standpoint. The rating bureau procedure described by Mr. Walters is designed to set actuarially accurate rates for all policies written, or renewed, during some future period. They are not saying that a profit will be made in that period even if the rates do prove to be accurate because obviously there is a carry-over of earned premium and incurred losses from policies written prior to that period. The individual company, however, whether it relies on the rating bureau rates or develops its own, is primarily concerned with a profit in a calendar year period. It cannot, of course, set a rate level that would produce a desired profit in the current calendar year, but the rate level must be one that would have produced that profit, on the average, over the experience review period after making the proper catastrophe adjustments and projections to current and future conditions.

This leads directly to our second major point which is "pure premium" versus "loss ratio" ratemaking. Mr. Walters reflects a very negative attitude toward the loss ratio method for what we feel is the wrong reason. He gives the impression that loss ratio data would never be available on anything except a statewide, all classifications combined basis, and thus could not be used to measure relativity changes. Theoretically, complete statistical data would produce the same result using either the loss ratio method or the pure premium method. Thus, the only difference appears to be one of convenience for the rating bureau or individual company making the analysis. We suspect that the pure premium method is best for rating bureaus because of the difficulty in adjusting reported premiums of all member companies to a common base. An individual company would not have this problem and must

only maintain adequate historical records of rate changes. With complete statistics, classification relativities can be measured by loss ratios as well as by pure premiums.

The remaining points we will touch are in the procedural area of Mr. Walters' paper. We applaud the bureau's efforts toward continued improvement in the adjustment of losses to current costs and the recent innovation of adjusting past premiums to current amount of insurance. Although we use different techniques in our company, the concepts are similar. We do feel, though, that the procedure for calculating a Loss Trend Factor requires additional research. The annual rate of inflation projected in the example (Appendix D) is 6.3% and of course this turned out to be a gross underestimate. We have tested numerous methods for projecting inflation and, of all the methods tested, we found that a twenty quarter regression curve combined with a least squares line fitted to the latest three months gave the best correlation to actual inflation for a short term projection of 12 to 15 months. However, even with this method our estimate of annual inflation as of the same date as the example was only 5.5%. Actual inflation from June 1973 to June 1974 based on the weighted Construction Cost-Consumer Price Indexes was 13.3%. We are now projecting an annual inflation of 12.1% with our methods, but we're over a year late with this figure.

Another procedural area that we think needs additional research is the handling of expenses in the Indicated Rate Level Change calculation. The procedure Mr. Walters describes treats all expenses as though they bear a fixed relationship to premium. His example arrives at an Indicated Premium Adjustment of +4.2% by dividing the Adjusted Loss Ratio (.627) by the Balance Point Loss Ratio (.602). Let us assume that the Balance Point formula is as follows:

Loss Ratio	.602
Variable Expenses	.200
Fixed Expenses	.138
Profit & Cont.	<u>.060</u>
	1.000

If the Adjusted Loss Ratio is then .627, a formula approach recognizing Fixed Expenses would produce an Indicated Premium Adjustment of +3.4% as follows:

$$\begin{aligned}
 .627 + .20X + .138 + .06X &= X \\
 .765 &= .74X \\
 X &= 1.034
 \end{aligned}$$

In the same manner, conversion of the "Percent Losses Eliminated" to an equivalent rate change should also take into consideration Fixed Expense dollars and a constant Variable Expense plus Profit and Contingencies percentage.

On the subject of Loss Elimination Ratios, we wonder whether "credibility" is really necessary. The procedure described by Mr. Walters uses a countrywide study by deductible, cause of loss and policy form and applies the resulting LERs to the individual state's loss distributions. In our experience there are significant differences in average size of loss from state to state and application of countrywide LERs would present an inaccurate picture of the effects of a deductible change. If at all practicable from an operations standpoint, we suggest that losses eliminated can be calculated with a high degree of accuracy on an individual state basis.

As a conclusion to this review, we would like to mention a couple more areas in the Homeowners ratemaking process which are in need of additional research. One of those involves territorial rating. During the past decade average crime losses have increased at a rate twice that of average fire losses. Yet, there has apparently been little effort to reexamine or expand crime rating territories under the Homeowners Program. Similarly, there is little evidence of any study to verify rate relativities by fire protection area or to reidentify windstorm zones. Since multiple peril policies such as Homeowners involve all three of these territorial factors, we can visualize a rating approach which combines them into a single set of rating areas.

The other area for additional research was mentioned by Mr. Walters and it involves using a period of time less than 5 years for determining normal loss experience. If one, two or three years experience could produce a projection as accurate as five years there could be a considerable savings in analysis time. However, the statutory requirements of at least 5 years of experience must be considered.

Mr. Walters has written a fine paper both in the subject chosen and the treatment of that subject. We hope to see his work regularly updated with future refinements in the rating bureau's techniques and to see additional papers on individual aspects of Homeowners ratemaking.