ABSTRACT OF THE DISCUSSION OF PAPERS READ AT THE PREVIOUS MEETING

DEDUCTIBLE AND EXCESS COVERAGES
LIABILITY AND PROPERTY DAMAGE LINES OTHER THAN AUTO —
JAMES M. CAHILL
VOLUME XXIII, PAGE 18
WRITTEN DISCUSSION

MR. THOMAS O. CARLSON:

As in the paper presented two years ago on Product Liability Insurance, Mr. Cahill has given us in this paper on Deductible and Excess Coverages for Liability lines other than automobile a valuable and needed contribution to the actuarial science set forth in the proceedings of our Society. In the past we have heard several papers which touched this subject, but touched it no more than tangentially, and only from the point of view of theory. This paper for the first time gives us a summary and an enlightening discussion of actual practice in the writing of these coverages.

The paper is essentially a technical presentation, delving only briefly into underwriting considerations. I hope that some other discussion of the paper may approach the subject from the underwriting angle. Having had no underwriting experience myself, however, I feel it will be wise for me to keep to familiar paths; consequently, my discussion will deal primarily with the technical aspects of the subject.

Having had the opportunity to review most of the paper prior to its presentation to the Society last November, I am not in a position to criticise the author for factual errors. There are a few such, however, to which attention should be called, although they are with one exception of minor importance.

> Early in the paper it is stated that the discounts for these coverages are calculated from compilations of losses by size of claim within line of insurance for claims settled in given calendar years. The bulk of the data are reported on such a basis but the reporting companies are given the option of reporting policy year data as of 24 months on an incurred basis, and this option is exercised by certain carriers.

Although the experience on which the current discounts are based was reported by industry group for the Manufacturers' and Contractors' Public Liability line, in the actual determination of discounts applicable to this line all industry groups were combined. There is thus at present only one schedule of discounts for this coverage.

In the section on experience rating it is stated that the Public Liability experience rating plan is applicable on an intrastate basis in three states: Minnesota, New York and Wisconsin. It should be noted that a plan very similar to the plan effective in these three states was made effective in Oregon, January 1, 1935.

In the brief section on aggregate limits, the following statement is made in the description of the coverage afforded: "All of the specified limits of liability—whether per person, per accident or the aggregate liability under the policy—apply to the gross indemnity cost of the claims incurred regardless of the portion of such cost which may be retained by the policyholder under the deductible form coverage". My understanding is that although this type of coverage is afforded by some carriers it is not afforded by all carriers. The alternative is for carriers to specify an aggregate limit applicable to the company's retention under the policy regardless of whether or not there is an aggregate limit applicable to the assured's retention.

The current procedure in the writing of these coverages has changed in two particulars since Mr. Cahill wrote his paper last fall. First, Product Public Liability risks are now rated by formula, using the Product Public Liability experience by size of claim. This experience has been tabulated for the three groups of classifications indicated at the outset of Mr. Cahill's paper, the excess and deductible coverage discounts varying according to the experience of these three groups. One change has been made in the formula, in that provision has been made for an increased allocated claim expense loading; this particular change was made more than a year ago. Secondly, in the Manufacturers and Contractors and Product property damage lines, for certain classifications involving a considerable multiple-claim-per-accident hazard, a distinction is made between the discounts for deductible and excess coverages on a per-claim as compared with a per-accident basis. For other classifications, the distinction between the coverage on these two bases is so slight as to warrant no differential in rates.

Before discussing the controversial elements in the paper I should like to commend the author for the clarity with which a complicated technical presentation has been phrased. In only one place in the paper does further elaboration appear to be in order, in the explanation of the derivation of expected losses in the application of the Experience Rating Plan. At the risk of increasing the difficulties presented by the scientific alignment of rules I shall attempt to explain certain of these rules more simply.

In effect, the total expected losses are determined by a process of successively eliminating the respective expense and profit items. The variable items of acquisition, tax and profit, equal to 30% of the final deductible rate, are eliminated by multiplying that rate by .70, and the amounts for unallocated claim expense, home administration, inspection and payroll audit (equal to the provisions for these items in the full coverage rate) are then deducted by subtraction. This is the interpretation of the formula, $.70\,r - .19$, used for the Owners, Landlords and Tenants, Manufacturers' and Contractors', Product and Theatre Public Liability lines, for example.

In paragraph (2) on page 32 the author cites the conditions under which the standard limits expected losses shall be considered to be composed entirely of excess standard limits expected losses. Conditions (a) and (c) are obvious, but the reason for condition (b) is not immediately clear. The formulas given thereunder determine the deductible rate below which the total expected losses are equal to or less than the excess standard limits expected losses under full coverage.

Under paragraph (3) on page 33 the rule provides in brief that for the losses under discussion the excess standard limits expected losses on a deductible basis are exactly the same in amount as they would be under full coverage, and the normal expected losses constitute the remainder of the standard limits expected losses on the deductible basis.

Rule (5) on page 34 introduces a slight ambiguity: actually, in the contingency provided against in the second sentence of this rule the standard limits expected losses should be treated in accordance with rule 2(c).

Elaboration corresponding to the foregoing could also be introduced in the subsequent section dealing with the application of experience rating to excess coverage risks.

In the section dealing with the reporting of experience the author recommends that future calls provide for the determination of size of claim by the amount of indemnity alone excluding all medical and allocated claim adjustment expense. Allocated

claim expense is already excluded from this determination. To exclude medical also would be wholly impossible for those carriers reporting upon a policy year basis. As noted by the author, medical losses constitute less than 1% of total losses and when the procedure of determining final discounts is considered it is clear that the inclusion of medical losses in all likelihood does not affect any of the final discounts. Even were it possible for carriers reporting on a calendar year basis to exclude medical, the additional expense of doing so would not be justified by greater accuracy in the final discounts.

In the section commenting on the present deductible rate-making method Mr. Cahill rightfully criticises the inadequacy of the current loadings for allocated claim expenses. As has already been noted, for the one line (a)-rated, Product public liability, this inadequacy was corrected in the actual rate-making procedure more than a year ago. Mr. Cahill recommends that revised allocated claim expense loadings be determined from the size of claim data. I believe that such a procedure would result in inadequate loadings for this item generally because those carriers reporting size of claim data on a policy year basis do not carry reserves for allocated claim expenses. This inadequacy is borne out by the fact that allocated claim expense ratios so determined are almost invariably lower than the ratios determined from the Casualty Experience Exhibit. One of the arguments cited by the author against basing these loadings on the indications of the Casualty Experience Exhibit is that they will vary considerably "with the character of the general loss experience, reflecting the effect of a favorable or an unfavorable loss ratio". But the author has indicated in the preceding paragraphs that the allocated claim expense should first be related to the losses including this allocated expense and this resulting ratio applied to the permissible loss ratio. Such a procedure would nullify the argument given by him for not using the Casualty Experience Exhibit data. It seems apparent that the Casualty Experience Exhibit affords the best and most reliable basis for the determination of these loadings.

Mr. Cahill's next criticism is directed against the graduation of the deductible discounts so as to produce an 80% discount for an assured's retention equal to $5,000 per claim. He has omitted the explanation of the reasons for adopting this procedure as well

as the derivation of the 80%. This graduation is linked to the determination of proper discounts for excess coverage. Under excess coverage, on a standard limits policy providing for a $5,000 per claim retention by the assured, the carrier is not liable for any losses; further, since the carrier does not investigate or adjust any claim it is in effect providing no coverage whatsoever. Therefore, it is not reasonable to make any charge for such a policy and the appropriate discount is 100%. It is not reasonable, or, may we say, not practicable from the selling point of view, to leap suddenly from a fairly substantial charge for a $3,000 or $4,000 assured's retention per claim to a zero charge for a $5,000 retention. It becomes necessary to introduce a graduation of discounts which is accomplished approximately by a tangent line similar to that used in experience rating credibility tables with the introduction of a self rating point. By reason of similar considerations of practicability, to produce a consistent relationship between the discount schedules for deductible as compared with excess coverage, it is necessary to graduate the deductible discounts as the assured's retention approaches the standard limit per claim. In order to determine the discount for an assured's retention of $5,000 per claim a charge was determined which would provide the full coverage amount for the expense of investigating and adjusting claims, and this amount was loaded percentagewise for the other expense items. The resulting charge was 20%, indicating a discount of 80%, which governed the graduation of the deductible schedule of discounts. If adequate loadings for allocated claim expenses are adopted the ultimate discount will be approximately 70% rather than 80%. In fact, for the Product Public Liability line the discount for $5,000 per claim deductible coverage is 70%, this change having been made by reason of the increase in the allocated claim expense loading. Discounts below that point are graduated along a line tangent to the curve representing calculated discounts. Theory may recommend elimination of this graduation as suggested by Mr. Cahill, but practicability dictates its retention.

AUTHOR'S REVIEW OF THE DISCUSSION

MR. JAMES M. CAHILL:

The writer is deeply appreciative of the kind comments which are interspersed in Mr. Carlson's constructive criticism of this

paper on deductible and excess coverages. This discussion is a valuable addition to the material already available in the *Proceedings* on this subject because it includes information on the changes in the rating methods which have been made effective within the last year.

Mr. Carlson has enumerated certain minor points regarding which the paper did not present the complete facts. The writer was cognizant of most of these points but, in dealing with the many details connected with these coverages and in attempting to arrange the material in an orderly manner, he neglected to mention several of the refinements listed by Mr. Carlson.

In order to bring the sections on experience rating up-to-date, it should be added that the Public Liability Experience Rating Plan was introduced in North Carolina on an intrastate basis effective June 1, 1937.

Mr. Carlson's discussion includes a very good explanation of the theory underlying the procedure outlined by the writer to be followed in experience rating risks written on a deductible basis. The material on experience rating included in the original paper was a very technical presentation of the subject. An easily understandable explanation of the derivation of the various formulas was not given. Mr. Carlson's elaboration of this section should clarify the experience rating procedure for those who wish to know the reasons for the various calculations.

It is also brought out in the discussion that consideration has recently been given to correcting the inadequacy of the loadings which have been employed for allocated claim adjustment expense. The reasons given for not calculating the revised loadings for this item from the size of claim data appear to be very logical and incontrovertible. In his paper, the writer stated objections to employing the allocated claim expense ratios reported in the Casualty Experience Exhibit without adjustment. It would appear, however, that the procedure outlined by Mr. Carlson which provides for first relating the allocated claim expense ratio of the Casualty Experience Exhibit to the loss ratio including allocated claim expense as reported in the same exhibit and then applying this resulting ratio to the permissible loss ratio would produce a proper provision for allocated claim adjustment expense to be used in calculating deductible rates. If this adjustment is em-

ployed, there should be no objection to employing the data reported in the Casualty Experience Exhibit to determine the necessary provision for allocated claim adjustment expense.

The justification which Mr. Carlson has given for the practice of graduating the deductible discounts so as to produce an 80% discount for an assured's retention of $5,000 per claim has been very ably expressed. Possibly the writer was somewhat amiss when he failed to mention in his original paper the reasons which prompted the introduction of a graduation of the deductible and excess discounts for sizable amounts of assured's retention of liability. A difference of opinion regarding the propriety of this graduation may exist, however, just as it does on other phases of casualty insurance rate-making procedure. The writer is still somewhat dubious as to whether the graduation process produces an adequate provision for company expenses on risks where the assured's retention of liability is a sizable amount.

SMALL RISKS VERSUS LARGE RISKS IN WORKMEN'S COMPENSATION INSURANCE

WRITTEN DISCUSSION

MR. GRADY H. HIPP:

Mr. Kormes' paper deals largely with loss experience by size of risk and the method of calculating loss constants. The paper also summarizes the history of the development of loss and expense constants and points out the reasons why these constants were adopted. The author's discussion of the expense constant is very limited.

The paper should prove to be very valuable not only to students but also to casualty insurance executives who could not otherwise be so conveniently informed regarding the important developments in connection with loss and expense constants. In a comparatively new line of business such as workmen's compensation, it is particularly important to have periodical summaries made of the more important developments in connection with various problems. Many of the developments occur in connection with the work of committees.

The following table shows a summary of the loss and expense

constants in effect since they were first adopted to become effective May 1, 1928. The loss and expense constants applied to risks producing annual premiums of less than $400 prior to July 1, 1934 and to risks producing annual premiums of less than $500 on and after July 1, 1934.

Effective Dates	Expense Constant	Loss and Expense Constants by Industry Groups—New York State			
		Manufacturing	Contracting	Federal	All Other
5/1/28 to 7/1/34	$5	$23	$43	*	$ 7
7/1/34 to 7/1/35	5	32	63	*	13
7/1/35 to 7/1/36	5	32	63	$50	13
7/1/36 to 7/1/37	5	42	41	50	18

* Beginning with March 1, 1935 risks in the "Federal" group have been assigned loss and expense constants which differ from the constants applicable to other industry groups.

Note: The loss constant included in each loss and expense constant is calculated to provide a loading of 30.5% for expenses. This smaller expense loading results from excluding the loading for home office and payroll audit expenses from the percentage loading in the constants. The expense constant is designed to take care of fixed expenses which are independent of size of premium. The $5.00 expense constant originally adopted is based on a $3.00 expense fee plus a part of the loading on the average of the loss constants which part it was assumed would be available for the purposes for which the expense fee was proposed. This use of an average of the loss constants resulted in leaving a very low balance for the loss constant in the "All Other" industry group.

In the introduction to his paper, Mr. Kormes states that the fundamental reason why small risks have higher loss ratios than do large risks is that the small risk does not have the same incentive to provide for efficient and extensive accident prevention work. At a later place in his paper he states that Exhibit IV which shows the loss experience on short term policies was prepared in order to demonstrate the fundamental cause of the disparity in loss ratios between large and small risks. While the exhibits attached to Mr. Kormes' paper do not show the loss experience on full term policies, tabulations of loss experience excluding short term policies do show that there is a substantial disparity in loss ratios on full term small and large risks. Even if small risks were given an adequate incentive for accident prevention work, the question arises in my mind whether such work could be made effective on

small risks. It may be that small risks are inherently more hazardous than large risks. Regardless of expense, small risks may not be readily susceptible to accident prevention methods.

Mr. Kormes expresses the opinion that it is still a question open for discussion as to whether or not the loss constants are the only and final solution of the situation. He states there are many who believe with a more efficient payroll audit and more careful underwriting, the small risk problem could be corrected without any use of constants. On the one hand such a view implies that small risks are not inherently more hazardous than large risks, and on the other hand the contemplated procedure undoubtedly would involve considerable additional expense on small policies. Any such increase in expenses on small policies should be provided for by modifying the expense constant.

The experience rating plan which applies generally to risks with average annual premiums of $500 and over in New York State constitutes at least a partially effective incentive for accident prevention work on the part of larger employers. It is not generally believed that the loss experience of small risks is indicative of the hazards of individual risks. In my opinion, however, it would be feasible to apply an all debit experience rating plan to small risks for the reason that while the absence of accidents for a small risk may not carry much weight it is nevertheless significant when a small risk has a consistently poor loss experience over a period of years.

The exhibits attached to Mr. Kormes' paper indicate that the loss and expense constants have not yet corrected the disparity in loss experience on small and large risks. In calculating the loss experience shown in his Exhibit I the full amount of the loss and expense constants has been included in the premiums. The disparity in loss experience is actually greater for the reason that the additional premiums due to the expense constant have been included in the calculations. More properly, the additional premiums due to the expense constant should be excluded from the loss experience calculations when making tests of the adequacy of the loss and expense constants. It is recognized, however, that the exclusion of the additional premiums due to the expense constant would necessitate a considerable amount of work which perhaps is not warranted at the present time. If the expense constant

is included in the rate-making procedure for the purpose of offsetting the higher expenses on small policies, it would seem to follow necessarily that it should not be included in the loss experience calculations inasmuch as this part of the loss and expense constant was not intended to offset the higher loss experience on small policies.

The exhibits show that the loss experience on minimum premium risks is more favorable than on any other size group of policies. This situation is probably accounted for by the fact that many minimum premium risks do not employ one person on the average during the year, whereas in calculating the minimum premium a payroll of $1,500 is assumed. As business improves this situation may be materially changed.

The loss experience by size of risk clearly indicates the need for annual revision of the loss and expense constants, at least until such time as they may become reasonably stable and fixed.

Mr. Kormes also gives a valuable outline of the method of calculating loss constants.

It may be of interest to note that the symbol M used by the author for the experience modification in the formula corresponds to the experience modification $(1 + M)$ which is shown as a percentage of the rate in the New York Experience Rating Plan.

In calculating the loss constants, the total amount needed for constants is divided by the number of risks under $500 in annual premium size. This procedure involves a degree of error inasmuch as the loss and expense constants are reduced as risks approach $500 in annual premium size. If the loss and expense constant plus the premium exceeds $500 the loss and expense constant under the manual rules is reduced to such a figure as will make the sum equal $500. This error is probably not material.

It should be noted further that in calculating the reduction in the standard expense loading on account of additional premiums due to expense constants, it is also assumed that each risk with a manual premium of less than $500 contributes the full $5.00 expense constant. As explained above, however, on those risks which approach $500 in annual premium size, the constant is reduced. Consequently, a degree of error is involved which, however, is not of any serious consequence.

Inasmuch as the expense constant of $5.00 recommended by

the minority report of the "Conference Committee" has not been changed since it became effective May 1, 1928 it would now seem that a re-examination of the problem of expenses on small policies should be undertaken at an early date.

In a paper on "Compensation Expenses per Policy", Volume XXI of the *Proceedings,* Mr. Harmon T. Barber presented a summary of the results of the special study of countrywide compensation expenses which was made by the Pennsylvania Compensation Rating and Inspection Bureau in the summer of 1934. Mr. Barber pointed out in his paper that the amounts of average expense per policy developed from the figures shown in the special study compare closely with the provisions for administration and audit expense contained in the basic $10 expense constant of the National Rate-making Program. It would, therefore, seem that the problem of expenses per policy should be re-examined in New York State, and if necessary, a revision of the expense constant be made in accordance with the results of such a study.

MR. G. F. MICHELBACHER:

The football coach had the chemistry professor on the spot. The university's football star had flunked his chemistry exam and would be lost for the big game of the season. Couldn't something be done? Partisan interest in the game triumphed over official duty. The star was given a special examination, his eligibility was established, he played brilliantly, and the game was won. Later, the coach inquired of his friend just how the football player, whose intellectual attainments were far from extraordinary, had happened to pass his examination. "Well", said the professor, "you know that 50% is a passing grade in cases of this character. I made up my mind to give an oral quiz and to make it simple. Two questions were asked. The first was 'What is the color of anthracite?' and the reply was 'Red', which was wrong. The second question was 'What is the color of chlorine gas?' and the answer was 'I don't know', which was obviously correct. So I gave him 50% and passed him".

I hope that my attempt to discuss Mr. Kormes' paper will be judged in a similarly charitable manner.

I.

That part of Mr. Kormes' paper which describes the methods employed in calculating loss constants for New York creates a valuable, permanent record for future reference. I shall offer no comments with regard to it.

The remainder of Mr. Kormes' paper demonstrates the extent to which New York loss constants have removed the disparity between the loss ratios for small and large risks. The conclusion I reach, after examining this part of the paper, is that the problem has been neither completely nor adequately solved. The loss constants have served a purpose; but the actual experience shows very clearly that disturbing variations persist in the loss ratios by premium-size groupings.

I am glad to note, therefore, that Mr. Kormes does not consider ultimate perfection to have been achieved. Further study of the various phases of the problem will disclose new methods of approach. None of us should be satisfied until risks of all sizes and conditions receive the adequate, reasonable and equitable rating treatment which the law of this state prescribes for them.

II.

The use of loss constants, it should be noted, is merely one link in an historical chain of attempts to revise the rating process so that greater accuracy will be attained in establishing rates for individual risks. This more general problem has engaged the attention of rate-makers since the inception of workmen's compensation insurance, and representatives of stock insurance carriers have been most aggressive in this field of activity. It may be in order, therefore, to examine the reasons for the traditional attitude of stock insurance carriers with regard to this particular subject.

It would be trite to say that stock carrier representatives have been influenced by an intense desire to make the rating process equitable and non-discriminatory. These concepts should be constantly in the minds of competent, scientific rate-makers of every persuasion; although, I must admit, that some of the arguments I have heard our mutual company friends advance in the interests of certain classes of policyholders (most of whom they do not

insure) have caused me to wonder whether they clearly understand the meaning of these terms. (Oh, the oceans of crocodile tears that have been shed in the holy name of equity!)

Frankness compels me to say that stock insurance carriers have a special reason for insisting that each risk should pay a proper rate, and that reason arises out of the competitive position in which such carriers find themselves.

If one insurance carrier insured all the risks in a given state, inequalities in rates as between insured risks would not prevent that carrier from collecting an aggregate premium fund "adequate" to meet its requirements. And, viewed in the aggregate, such premiums might be "reasonable" as well. Thus, in the few monopolistic states we find that the emphasis in rate-making is placed upon aggregate results and that scant attention is paid to the fairness of the cost imposed upon individual employers.

But when several insurance carriers occupy the field and compete for business, differences in their methods of operation become important, and broad approximations of the true cost of insurance for individual employers are no longer tenable. Competition forces the business of insurance to recognize equity, fairness and nondiscrimination as criteria indispensable to a successful rating system. Unless each risk is properly rated, the competitive opportunities of different carriers may be impaired. Serious inequalities in the premium accounts of the several carriers may likewise result, for one carrier, by grouping certain risks, may receive an unreasonably excessive premium income while another, through the process of selection, may receive an inadequate premium income upon the risks it writes.

It so happens that stock insurance carriers operating on the nonparticipating plan are at a disadvantage in competing with nonstock insurance carriers issuing participating policies where large numbers of risks, divergent as to hazards and expense requirements, are thrown together in a classification for which an average rate is established. A simple illustration will demonstrate the accuracy of this statement.

III.

Workmen's compensation insurance possesses one fundamental characteristic which distinguishes it from fire insurance and other forms of property insurance. The hazard is multiform; industrial

injuries occur with such regularity that a statistical "experience" is soon created with which the individual policyholder becomes reasonably familiar. This tangible indication of cost for the individual risk creates difficulties when large numbers of diverse risks are grouped together in a single classification. Any such broad grouping of heterogeneous risks necessarily produces an average rate that is too high for some risks and too low for others.

Now, assume that two carriers approach the policyholders in this group—one using the average rate of the group as a fixed, guaranteed, initial rate (non-participating insurance), the other using the average rate as an approximate initial rate subject, theoretically, to later adjustment on the basis of actual experience of the risk during the current period of coverage (participating insurance). Since the individual policyholder knows from experience approximately what the cost of insurance for his risk should be, it requires no great intelligence to predict that those policyholders whose costs are below the average will be attracted by the participating plan. This will leave for the non-participating carrier an "adverse selection" of risks whose individual cost is either equal to or greater than the average for the group; and the result will be an inadequate premium income for such carrier.

We know that the "experience" of an individual risk increases in evidential value as the risk increases in size. "Large" employers, therefore, have a better basis for judging whether an average rate fits their particular risks than do "small" employers. That is one reason why stock insurance carriers operating on the non-participating plan are interested in properly rating "large" risks. Their ability to attract the best risks of this type necessarily depends upon the fidelity with which the initial rates they charge reflect the true cost of insurance for the individual risk.

On the other hand, because stock insurance carriers obtain their business through agents located in every town and hamlet, they must necessarily expect to receive the bulk of the business which is produced by intensive solicitation. Look at any Main Street and you will see the type of workmen's compensation insurance risks which stock insurance carriers must absorb in large numbers. Stores, restaurants, garages, hotels, barber shops, markets, theatres, banks, office buildings, sheet metal shops, artisans—a multitude of "small" risks—these constitute the clientele of the average

agent. These "small" risks must be written by stock insurance carriers which must make certain that this business fully pays its way by producing premiums sufficient to defray expenses and to pay losses.

It isn't, therefore, so much a question of small *versus* large risks as it is a question of small *and* large risks. At both extremes (and "in between" as well) the same necessity exists for stock insurance carriers to produce rates which strictly treat each risk on its individual merits. Thus, the representatives of stock insurance carriers have been interested in such problems as classification phraseology, underwriting rules which authorize the use of divided payrolls, schedule rating, loss and expense constants, minimum premiums, equity rating, graded expense loadings, retrospective rating—all devices which are designed to permit a more accurate rating of each individual risk.

Unfortunately, carriers operating on the participating plan (principally mutual insurance carriers) have not evidenced a very co-operative attitude in this matter. Obviously, they have an unfair competitive advantage when broad groupings of risks are used as the basis for rate-making and they seem to feel that they possess a vested interest in such a system of rating which they must protect at all hazards. For this reason, they have stubbornly opposed every attempt to introduce refinements in rating. Out west, where I come from, the obstructive tactics consistently employed by non-stock carrier representatives would be characterized as constituting a "dog-in-the-manger" attitude. (Them's fightin' words, pardner—and so intended!)

Recently, this opposition has appeared so frequently and has taken such unreasonable forms that it must necessarily raise a question whether cooperative rate-making as between stock and non-stock insurance carriers has outlived its usefulness and any longer possesses the capacity for successful achievement.

IV.

This conflict in interest is not a matter of recent development. It has always existed and will probably continue to exist. But it should not be permitted to interfere with scientific rate-making!

At the outset, in the 1915 conference, when these two classes of insurance carriers first sought to cooperate in making rates, trouble was anticipated. Representatives of mutual insurance carriers,

it was thought, would argue for high rates (so that their dividends would be abundantly assured); representatives of stock insurance carriers, in self-defense, would argue for low rates (so that the compromise, initial rates, which were their final, guaranteed rates, would be at least approximately correct); and no one would seek rates which were actuarially justifiable.

At that time it was felt that a formula might be established which would reconcile opposing viewpoints and ignore everything except actuarial principles. It was agreed that the initial rate was to be calculated by combining a pure premium taken from the aggregate experience of all carriers and a loading based on the expense requirements of stock insurance carriers, with the understanding that this rate would enable participating carriers to pay a dividend equivalent to the difference in actual expenses between the two classes of carriers.

Obviously, the adoption of this formula should have eliminated competitive considerations from the rate-making process and, for a time, it did. Unfortunately, however, this program has not proved permanently workable. Its breakdown has made the situation intolerable for stock insurance carriers.

My suggestion to those who believe that non-partisan rate-making should be continued is that a "new deal" is urgently needed if further attempts at cooperation are to be made. In short, it is my conviction that cooperative rate-making for the future is possible only if it can have one objective—to provide correct rates for each individual risk. Perhaps it is futile to expect the warring factions to reconcile their differences this side of the millennium. If so, the sooner we concede this point the better for all concerned. Here is a project in formula-construction which might well engage the undivided attention of casualty actuaries whose interest in rate-making is, or should be, a purely scientific one.

AUTHOR'S REVIEW OF DISCUSSIONS

MR. MARK KORMES:

The above paper was written with the intention to present a technical and unbiased description of the phase of the Workmen's Compensation rate-making method which deals with the problem of small risks. I am, therefore, greatly pleased with the generous response accorded me by two prominent members of the Society in writing a discussion of this paper.

Mr. Hipp's discussion constitutes a valuable complement to the contents of the paper in that it brings out the importance which should be attached to the consideration of the expense constant. The author has purposely avoided bringing in questions of controversial nature which will serve to explain why the question of expense constants was not treated in the paper to any extent. Furthermore, the excellent paper by Mr. Harmon T. Barber in these *Proceedings* should offer sufficient information to the student and since no additional factual information has developed from the time when Mr. Barber's paper was written, the author thought it wise to refrain from the discussion of this subject. It may not be amiss to state in this connection that the author feels that an expense constant is not necessarily attributable to small risks since if it is based on the theory that there are certain constant expenses per policy it should, in practical application, be charged as a sort of a policy fee on all risks.*

The remainder of Mr. Hipp's remarks serves to clarify and round out the various aspects of the loss constant problem. In particular, the author agrees with Mr. Hipp that in the test showing the disparity of the loss experience as between small and large risks, the expense constant should be eliminated. It may be, therefore, proper to include in this review a short table showing the loss ratios by broad size groups on the basis of premiums exclusive of the expense constant.

LOSS RATIOS BASED ON PREMIUMS EXCLUDING EXPENSE CONSTANTS FOR POLICY YEARS:**

Industry and Premium Size Group	1928	1929	1930	1931	1932	1933
Manufacturing						
Min. Prem. Risks..	49.8	40.5	39.8	46.2	53.2	45.2
Risks under $400..	67.3	70.2	79.5	82.3	84.3	66.0
Risks $400 & Over	66.6	65.4	61.8	60.5	53.9	52.5
Contracting						
Min. Prem. Risks..	67.4	65.4	63.7	67.4	42.0	53.5
Risks under $400..	77.1	78.6	87.1	101.5	69.9	65.4
Risks $400 & Over	70.1	73.6	79.9	77.1	75.9	68.6
Federal						
Min. Prem. Risks..	—	—	—	—	—	49.5
Risks under $400..	—	—	—	—	—	97.8
Risks $400 & Over	—	—	—	—	—	49.3
All Other						
Min. Prem. Risks..	49.8	45.1	53.6	46.8	43.3	47.5
Risks under $400..	63.4	72.2	72.4	72.3	64.5	67.5
Risks $400 & Over	59.2	63.5	61.2	57.1	52.3	54.6

* This idea is actually carried out in New Jersey.

** Policy year 1928 comprises the experience from May to December inclusive. The constants were introduced as of May 1, 1928.

As regards Mr. Michelbacher's discussion, the author is not only surprised but also taken aback. He never dreamed that his paper would ignite the spark of partisan issues and that the discussion of his paper would result in an attack on a certain group of insurance carriers.

There is no question that the rate-making procedure for Workmen's Compensation should be sufficiently refined to provide as accurate rating for various groups of risks as is practically feasible and at the same time in conformance with sound insurance principles. The author is convinced that any opposition developed to a number of quickly conceived schemes will serve to eliminate any ill-advised changes in the rate-making procedure and to develop scientifically sound methods of rate-making which Mr. Michelbacher so desires. While one can hope to achieve some day a rate-making system which, over a period of time, will produce satisfactory results for various groups of risks, one cannot agree that it would be in conformance with the principle of insurance to produce rating methods absolutely accurate for each individual risk. We would then have not insurance but self-insurance with service charges.

While the author is flattered that such a prominent member of the Society has considered it worth his while to write a discussion on this paper, he would have very much preferred that such discussion had been written "sine ira et studio" in accordance with the maxim of the Roman historian Tacitus.