THE CONTROL OF ACCIDENTS THROUGH WORKMEN'S COMPENSATION RATING

BY

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Workmen's Compensation is a social service having for its immediate object the care and support of injured workmen during periods of disability due to industrial accident.

A secondary, but even more important object, should be the prevention of accidents, and most insurance companies devote a considerable amount of time and money to that end. Under plans of experience rating, the care exercised by the employer in accident prevention is to some degree reflected in his rate, but the experience of employers which have cooperated whole-heartedly with the engineering departments of the insurance companies indicate that there are still impressive possibilities in the field of accident prevention.

The doctrine of assumption of risk has practically disappeared as a legal defense in industrial accident cases, but it is to be feared that it still exists in the subconscious thinking of employers. That is, if they provide working conditions which are reasonably safe for a careful man who understands the risks involved, they consider their duty in the matter is done, and if avoidable accidents still occur, it is something for the insurance company to worry about.

If a system of workmen's compensation rating could be devised which would stimulate to the full the interest of all employers, large and small, in accident prevention, the social service rendered by workmen's compensation would be vastly increased.

From the viewpoint of rate making, it has been demonstrated by years of experimentation that the companies have yet to find a system of rating risks which will produce adequate and equitable rates, or if they could devise such a system in theory, they have been unable to put it into practical effect. With all the modifications that have been introduced into the original practice of rating by occupational classification, including experience rating, schedule rating, equity rating, the use of loss constants and

of expense constants, the system still fails to work satisfactorily. The individual quality of the risk is in many cases a factor of greater importance than the occupational grouping to which it belongs, even after all possible rate modifications have been made.

From time to time writers or speakers who should be better informed comment upon the evil of permitting insurance companies to make millions of dollars profit out of the misfortunes of injured workmen through handling workmen's compensation insurance. If this were not tragic, it would be funny.

It may be taken for granted that the insurance companies would be willing to handle workmen's compensation as an accommodation line without profit to themselves if they could be reasonably assured against considerable losses.

Is it possible to devise and to put into operation an equitable system of Workmen's Compensation rating which will stimulate accident prevention and which will at the same time permit the companies to handle the business on a cost basis without involving themselves in staggering losses?

It would probably be easier to devise such a system than to put it into operation. The following paper attempts to suggest such a system in outline. If the basic theory is sound, the actuarial talent of the Society should be sufficient to work out the details. The difficulties in the way of the application of the theory are immediately obvious but are perhaps not insurmountable.

Broadly speaking, it may be said that the two principal elements entering into workmen's compensation losses are:

1—Accident frequency
2—Accident severity

It is here suggested that the first is so far controllable as not to be a proper subject for insurance, but that the second answers more nearly the criteria of insurability.

The proper function of insurance is to equalize the losses among risks of similar hazard, so that the purely accidental incidence of losses may not fall too heavily on the individual assured. In order to be insurable in the strictest sense, a hazard should not be such that it is under the control of the assured, either through willful acts or negatively through carelessness or neglect.

The experience of insurance companies indicates that acci-

dent frequency is to a large degree under the control of the individual employer; that an efficiently managed plant where accident producing conditions are consistently studied and eliminated and where careless employees with records of frequent accidents are re-trained, transferred, or eliminated, will show a better experience than another plant in a less hazardous classification where those conditions do not obtain.

It is submitted therefore that no system of classification can be devised which will properly group risks as to the accident frequency hazard, and that the greater social good would be accomplished by making every employer financially liable, to some extent at least, for every accident occurring in his plant.

Accident severity, on the other hand, represents to a large degree an accidental hazard, affected to a considerable degree by the nature of the industrial process being carried on. Over a large number of occurrences it would be possible to determine an average cost per accident in any given classification. The logical conclusion is then that the proper function of the insurance carrier is to guard the assured against the risk that the accident in his particular plant may exceed in severity the average accident in his classification.

Any employer operating a plant with more than a small number of employees should be able by the exercise of proper care to keep the accident frequency in his plant so far within bounds that the payment of compensation on such accidents at an average rate would be no more of a burden than a reasonable insurance premium; but if the accidents in his plant chance to produce fatal or major injuries the burden might be crushing.

Specifically, then, it is suggested that each employer pay a premium representing a fixed charge for every accident occurring in his plant which involves loss of time at the injured man's regular occupation beyond the day or shift in which the accident occurs, plus an expense charge. If an employer has had no accident, his premium would be limited to a carrying charge sufficient to cover the expense of handling the policy. A still broader base would be secured if a charge could be made for every accident of any kind, but it is possible that such a method might result in a consistent failure to report and possibly to treat small cuts and scratches which if treated would be unimportant but which might result in infection if neglected.

The standard charge per accident would be compiled by the state industrial commission on the basis of accident reports submitted by the insured and of the incurred loss costs as reported by the insurance carrier. It would be computed by industrial classification, but, after a period of experimentation, it should be possible to combine the present classifications into a few groups according to their record of accident severity. Fatal and permanent total cases occurring in any classification would be valued at a stated average for all classifications.

An assured's deposit premium would be figured by multiplying the number of lost time accidents in his plant in the past year in each of his classifications by the average costs as published by the industrial commission, and adding a suitable expense loading. If the insured's program called for a changed schedule of production during the coming year, the rates could be modified by the ratio of expected payroll to the payroll for the past year.

At the year's end, the assured's premium would be adjusted according to the number of lost time accidents actually incurred.

Acquisition costs should be based on a flat charge covering the average office cost to the agency for handling a policy, plus a percentage of the premium graded down with increasing size of the risk. If the companies handled workmen's compensation as an accommodation line without profit to themselves, the agents could reasonably be expected to do the same.

Home office administration costs should be based on a minimum handling charge plus a graded percentage of the premium decreasing with the size of the risk.

Adjusting expense should be charged as a flat percentage of the premium or as a flat charge per accident.

The result of this method would be to make the employer responsible for accident producing conditions in his plant but to protect him from unusually heavy or catastrophic losses. The insurance company would furnish this protection at the minimum practicable cost, but would in effect be protected from heavy losses if the average cost per accident were properly computed. The company's profit, if any, and provision for contingencies would come from possible savings in the expense loading and from interest on funds handled.

Under this system inspection and accident prevention work might be furnished at cost by the insurance company and paid

for directly by the employer instead of being included as a percentage of the rate.

Underwriting costs would be somewhat reduced, as the element of judgment in the selection of risks would be minimized.

Payroll audit costs would be eliminated, as well as losses from failure to report the full payroll. Some system of check up on accidents might be advisable, but if sufficiently drastic penalties for failure to report such accidents to the commisison were imposed, this should not be generally necessary.

If industrial classifications were combined into a few groups as suggested above, statistical costs would be considerably reduced.

So much for the theory. Now let us consider the limitations of the plan and the practical objections to it.

The first and obvious practical objection is that it would bear heavily on the small employer who was unfortunate in his accident experience. This is undoubtedly true and when the exposure is so small the occurrence or non-occurrence of injuries comes nearer to being an accidental happening than is the accident frequency rate in a large plant. On the other hand, it is true that a large percentage of workers are employed by small employers and the accident experience of such employers is less favorable than that of large employers. This may be assumed to be due to the fact that accident prevention methods are less efficient in the small plants. If then the occurrence of an accident in the plant of any small employer is a distinct loss which he will be at pains to avoid if possible, the standard of accident prevention among the group as a whole would be raised. While the individual employer might suffer to the extent of having to pay the standard cost for every accident incurred, the burden under this plan should not be a crushing one, and if the plan resulted in fewer injured workmen, it should be justified by that fact.

Difficulty would be encountered in securing official sanction for the above system over the objections of a multitude of small employers and it is probable that they would have to be excepted from its operation to a considerable extent.

The actuarial problems of the plan would be concerned with the computation of the average cost per accident. Data relating to accident occurrence would have to be collected by a state body such as the Industrial Commission who would be charged with

enforcing the penalties for failure to report accidents. The accident data reported to them should be used as a check on the number of accidents as reported by the companies. Accident cost by classification would be subject to modification for trends in wage scales and would vary with the degree of malingering as affected by industrial conditions and with the liberality of the commissions and courts in awarding benefits. Problems relating to medical costs would remain in full force.

The above plan represents a radical departure from present methods and though the soundness of the theory be granted, the practical difficulties are great. The writer has discussed it with a number of capable insurance men and the interest that they have displayed in it has encouraged its presentation to the Society.