

## ORIGIN OF THE CASUALTY ACTUARIAL SOCIETY

BY

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It is unnecessary for me to say how much I appreciate this opportunity to renew my contact so long interrupted with the members of the Casualty Actuarial Society, as well as the honor of being the first in the part of to-day's program to be contributed by the past Presidents. The occasion of the celebration of the tenth anniversary is of such importance that I feel that I owe this meeting my humble apologies for not coming prepared with a careful paper, such as the occasion deserves. My only excuse is the preoccupation, resulting from an effort to work simultaneously in the two fields of social service and casualty insurance, for it is no secret that of all the past presidents of the Casualty Actuarial Society I have been more past than the others during the last five years. And only comparatively recently have I succeeded in re-establishing my contact with the field of insurance.

The subject assigned to me today is that of the "History of the Origin of the Casualty Actuarial Society." The writing of scientific history is not an easy matter. Contrary to the general impression, eye witnesses, no matter how honest, are not the best historians for frequently they lack the necessary detachment. Critical history requires a perspective and perspective requires time. For this reason I doubt whether I shall be able to give you an unbiased story of the origin of the Casualty Actuarial Society. The best I can do is to enter into reminiscences. However, reminiscences have their historic value. They usually constitute part of the material upon which critical history is built.

It is always a problem as to how far any individual or group of individuals have been responsible for any historic development. The old philosophy of history insisted that there must be a certain logic in the development of institutions, and always a claim can be made that the necessities of the situation are responsible for the creation of institutions and that the individuals who seem to be doing the work are only pawns in the hands of this inexorable logic. And yet, human beings do not cherish the thought that they are merely pawns in the hands of blind fate. It is,

therefore, quite natural for myself and those who with me had been active in 1914, to feel that in the organization of the Casualty Actuarial Society we have been instrumental in making a definite contribution. How much of this point of view may be explained by the usual conceit of a reminiscing person must be left to others to judge.

In fact, so often does this problem arise in history, so often does the development seem to go contrary to any historical or philosophic logic, that one can notice a definite re-action in the philosophy of history, and the growth of a point of view that after all history can do no better than to record a succession of events as they actually occur, without any definite claims as to why or how.

There can be no question that in addition to the individual efforts, the proper soil is necessary for a new institution to grow even after the seed has been planted. Such soil was furnished by the compensation legislation beginning with 1911, and yet there is reason to think that except for the efforts of a few individuals the soil alone would not explain the origin of the Casualty Actuarial Society. I am thinking of England as an illustration. The compensation situation in this country in 1911-14 was perhaps not very much different from that in England ten years earlier. Surely, English industry and English insurance business were as much baffled by the new problems of compensation insurance as were the States ten years later. And yet, it seems to be an extremely significant fact that not only then but even for the 20 years which followed, England has not created a casualty actuarial society and as a result has not created a casualty actuarial science. So that within half the period the American insurance business has made very much more scientific and practical progress than has England, and now English insurance actuaries must come to American students for the solution of their problems. This has been largely due to ten years' work of the Casualty Actuarial Society.

How did the Society come to be? Perhaps through an accident, if you will. It may be assumed or granted that I had something to do with it. How did I happen to come into the casualty insurance business? This may sound somewhat egotistic, but after all, that is the usual failing, and perhaps the virtue, of reminiscences of eye witnesses who persist in considering themselves in the

center of historic events. Sometimes I am inclined to blame the Metropolitan Opera House for entering the casualty business, and for all the dire consequences both to me and to the business which followed. It was after eight years of service in the Federal government, after having reached "the pinnacle of success" which in terms of dollars and cents represented then and would represent even now a very modest figure. I had come to New York to interview a friend of mine connected with a large life insurance company, and to suggest to him as tactfully as I could that I was ready for something better or at least for something that paid better. As he evidently felt that I knew nothing of insurance and, therefore, was more fit for the casualty than for the life insurance field, he suggested that I see the manager of a large casualty insurance company. It was on a nice winter afternoon, and the Metropolitan Opera was to present *Madame Butterfly*, an opera I am inordinately fond of. The question whether it was worth while giving up the opera for the sake of a problematic interview was not an easy one, but fortunately or unfortunately the Opera bill was changed, and so I thought I might as well go and see the insurance manager. And as a result of this interview, a week later came my appointment as Chief Statistician of the Ocean Accident & Guarantee Corporation.

Now all levity apart, it isn't simple egotism that moves me to tell this story. The fact that being without any insurance experience and practically without any business experience, I succeeded in obtaining this appointment, was I believe significant. There must have been something in my previous training that appealed to the manager of the casualty insurance company. Remember, this happened early in 1911 when there was not yet a single compensation law in effect, outside of the Act of 1908 providing compensation for a small body of Federal employees, an act in the administration of which I had some experience. The first New York compensation act had been declared unconstitutional. The New Jersey compensation act had not yet passed. Nevertheless, it was the fact of my having devoted three years to the study of foreign compensation and workmen's insurance legislation that undoubtedly influenced the insurance company. And I believe that the farsightedness of the manager in seeing that compensation was destined to play a tremendous part in the development of casualty business, and the anxiety to

include in the staff people familiar with this new form of insurance, is worthy of being recorded. It is true that not all practical insurance men in 1911 were equally farsighted. Few will remember and fewer will admit that only 10 or 15 years ago they were actively opposing the extension of the compensation principle, which during these few years has become by far the most important branch of casualty business.

Now this happened in 1911 and the Casualty Actuarial Society was not organized until the fall of 1914. There can be no question but that the organization of the Society was forced by the compensation legislation of 1911, '12, '13 and particularly '14, and the pressure of the problems that were arising almost daily, particularly in connection with the administration of the New York Compensation Act of 1914. It was this pressure that created the Compensation Bureau and its various committees, its statistical committee, its law differentials committee, its committee on classification of industries, and the co-operation of these various committees with the underwriters for the sake of arriving at some honest, objective and safe basis for compensation insurance rates. As I read the latest issues of our PROCEEDINGS and its complicated formulas, based sometimes upon higher mathematics, particularly as I look at this audience and see so many younger faces, I wonder how many now remember the excitement that prevailed when these compensation acts began to come thick and fast. Nobody seemed to know just what was going to happen. Many insurance people thought that they knew that something very catastrophic was going to happen to the insurance business. Again to become reminiscent and personal, I remember my first article on compensation, which Mr. Marsh accepted for the *Economic World*. I remember the very unfavorable criticism which this article called forth because I assumed, and in my innocence blandly stated, that employers' liability was doomed and workmen's compensation was coming. The greatest excitement prevailed after the passage of the New York Compensation Act. The compensation benefit scale was so much higher than that of all preceding acts and in addition was so indefinite because of the new conception of life benefits for permanent disabilities, that several companies including my own had almost decided at the time to write as little New York compensation as possible, lest the unexpected hazards might

bring the company to bankruptcy. It is only a just pride of our profession that moves me to say that it was the statistical profession (we did not speak so glibly of compensation actuaries then) that saved the day. Remember that statisticians of casualty insurance companies were not considered very much more important than head clerks. The statistical departments were barely tolerated out of sheer necessity, being wholly unproductive departments. Many insurance companies conceived of the main function of those departments as keeping accurate records of individual risks. Rates were largely made by underwriters and any advice on the part of the statistician would have been considered a presumption. Yet here, a sudden situation developed; not only the insurance companies but even the insurance departments were completely at a loss as to how to arrive at New York rates on a basis of a very limited Massachusetts experience. Then came the Standard Accident Table which may be out of date now but has stood the test of time for all practical purposes for nearly a decade. Then also came the theory of law differentials, and a set of basic and state rates which however inaccurate they may appear now, at that time offered at least an impartial ground for discussion. And then also came as a by-product the very close cooperation of statisticians of all the important casualty companies and the rapidly growing recognition that they were the only body of people competent to work out the set of principles which were destined to play an important part in the development of insurance. And out of these meetings of various committees, friendly meetings notwithstanding the variety of opinions represented by the constituent companies, came the call for the organization of our society.

We had a rather difficult time. I remember when we sent out our first circular, offering the membership for nothing, membership for which you now have to pay with at least two years of hard work in passing examinations which many of us older Fellows might not be able to pass (and perhaps that is why we never received those handsome diplomas which were distributed this morning to the successful Fellows), and we were wondering if this offer were sufficiently attractive and whether we would be taken sufficiently seriously. It was a pleasant surprise to find how many did jump to the conclusion that it was a good thing to organize. Undoubtedly, much credit is due to those who were

willing to sign that first circular and among whom are found the most important, most competent and most influential members of the casualty business and of this Society.

And after we had gotten together the list of members, the serious question arose, "What are we to do at the first meeting?" Papers, of course, appeared necessary. But there seemed to be very few people in the group who were in the habit of making scientific studies and of putting those studies down systematically on paper. Perhaps the very modest appearance of the first issue of the PROCEEDINGS will suggest to you the difficulties we had to face. It might have been easy to grow pessimistic and to assume that the casualty business did not possess the necessary ability. It was the faith of the organizers, as well as the medium offered by the meetings and by the PROCEEDINGS that very quickly proved how unjust such pessimism was. It is true it was at first difficult to induce men to write papers. There was even the feeling, not so much among ourselves as among the executives, that we had no right to give away any secrets which we might have learned in our service for individual companies. But gradually, even that was overcome. It was but natural, in view of the fact that the Society arose out of the needs of one particular line of business, that of workmen's compensation, that for some time it should have been limited to this field. Compensation grew in importance and has now become proportionately even more important than it had been at any time before. And yet, I believe credit is due to the farsightedness of the original sponsors of the society in definitely announcing from the very beginning that it was to cover all the casualty lines and the study of the 10 volumes of PROCEEDINGS which have appeared since 1914 and the review of which represents the duty of the next speaker clearly indicates that our prediction was correct and that there is no branch of the casualty insurance business that failed to get at least some recognition under the stimulus of these meetings and our PROCEEDINGS.

It isn't my duty to make an analysis of the development of casualty insurance business during the last 10 years, but there is just one point I want to draw to your attention, one thought I want to throw out at this opportunity. I want to remind you, and particularly the younger members of this Society, that when it was organized in 1914 it was not only the Casualty Actuarial

Society but the Casualty Actuarial and Statistical Society of America, the C. A. S. S. A. We were rather proud of our "Cassa." Perhaps we may have thought it a particularly good term because in some languages it means the cash box. What I am going to say may appear like a criticism but it is not meant to be one. It is not up to one who is on the outskirts of the business to lay down the rules for those whose entire time is now devoted to the casualty insurance business and the actuarial problems connected with it. But, I want to explain the reason why I had a definite sense of loss when I learned of the change in name. It may not be necessary to raise the question why the last two words were omitted. Surely I do not mean to introduce any doubts as to the American patriotism of those responsible for it. Yet, presumably it is not impossible that a similar society might be organized in England. But that is a minor matter. The exclusion of the word "statistical" in my opinion is not. There seems to me sufficient difference between the actuarial and the statistical method to justify the preservation of both words in the complete name of the Society.

Of course, from one point of view the actuary includes the statistician, or at least the actuarial science may be claimed to include statistics. At least the actuaries are often inclined to think so. In some insurance companies, particularly in life insurance companies, the statistical department is a branch of the actuarial department, and the statistician subsidiary to and under orders of the actuary. This is simply for the reason that the actuary finds that he can make no steps in the solution of his problems without properly prepared statistical material. Of course, there may be in addition, a somewhat more obvious reason in the difference of remuneration paid to actuaries and to statisticians.

That, however is not the entire story. If the actuary must take the statistical material and run it through its own actuarial machinery, so to speak, before the necessary results are obtained, it is equally true that there is a very large amount of statistical material for which the actuary may have no use at all and which may be very important not only for the business but for the development of insurance science. The two fields of actuarial and statistical science are undoubtedly overlapping, but they do not altogether coincide, and it would be a very great

pity if the change in the name of the Society were to lead consciously or unconsciously to the exclusion of such statistical problems which had or seemed to have no actuarial bearing.

For after all, what is the essential field of actuarial science? It is the application of mathematics to experience for the purpose of furnishing accurate, fair or at least reasonable insurance rates. That this is a matter of very great importance, no statistician and not even a layman would deny. But, after all, is the insurance rate all there is to the science of insurance? Is the insurance rate the limit of interest society has in the development of insurance business and insurance science? Here, again, a certain detachment does, I believe, help towards a fairer point of view. The insurance actuary is so engrossed by the exigencies of the situation in the preparation of rates that he may disregard many other, perhaps more important, considerations. Many other problems are of greater importance from a general economic or social point of view. This becomes the more obvious to an outsider. Your president this morning, in speaking of the public aspects of insurance actuarial work, emphasizes the growing tendency towards rate supervision and control. Not for a moment do I intend to deny the very great importance of this tendency. But, after all, the public's interest in the development of the insurance business and the social scientist's interest in the development of insurance science, are not limited to problems of premium rates. After all, the premium is the price for service rendered. Prices of all things fall and rise. Prices of most things fluctuate a good deal more than do the insurance premium rates. An organization I am connected with pays for its compensation insurance the modest amount of \$88, being a rate of \$.11 on a payroll of \$80,000 per annum. The actuarial problems involved in the computation of a rate remain the same whether it be \$.11 or \$11 per \$100 of payroll. From a point of view of actuarial mathematics, just as much work may be put into the computation of \$.11 premium rates and the purely mathematical problems involved just as important. But after all, it is useless to exaggerate the social importance of a slight fluctuation in the price of insurance, which in most cases constitutes a very small part of the cost or price of any article or service.

I want to state that there are many problems in the business, as well as in the science of insurance, that are of much greater

importance than the mathematical accuracy of the premium or price. And that insofar as the public or society at large is interested in the development of insurance, they are very much more interested in those general problems than in the mathematics of rate computation. It is in those by-products of the insurance business that statisticians more than actuaries, or perhaps it would be more accurate to say statistics rather than actuarial science, can play a very important part. Nor is this a matter of pure speculation. In the related field of life insurance, the influence of at least some insurance companies in the field of life and health preservation has been one of very great importance and that influence has largely been contributed by statisticians, or at least by scientific analysis of life insurance statistics, which from the point of view of rate computation might have appeared as an unproductive expenditure of funds. Even running the danger of facing the charge of improper personal references, I can't help mentioning in this connection the tremendous importance of the work done by the statistical department of the Metropolitan Life Insurance Company, under the leadership of several of our ablest vital and insurance statisticians. The problems casualty insurance is dealing with are perhaps of equal importance. It is perhaps sufficient to mention only one line, that of automobile insurance in its many sub-divisions. The problem of automobile hazards in American life has become a grave and pressing national problem. The actuary may feel satisfied if he meets this problem by elaborating formulas which guarantee insurance companies against unexpected losses and guarantee to the automobile owner a fair and equitable rate. The public, however, may rightfully expect a much greater service from the casualty insurance companies, a service which only the statisticians can render; a thoroughly scientific study of this new hazard of our social life in all its ramifications, with a view towards creating forces which would help society towards overcoming it.

This on a practical or utilitarian side. Equally strong argument, it seems to me, can be made from the point of view of theoretical insurance science, what the Germans so definitely designate as "Versicherungswissenschaft."

After all, it is very much to the credit both of the organizers of this Society and to its entire membership that it has definitely

remained an organization of individual workers and students, rather than an organization of employees of business corporations. So punctilious was the Society in preserving this point of view, that at no time was it allowed to derive any material benefit from any insurance corporation. So well has this matter been settled that one may well afford to view with good natured humor the problem that appeared so threatening eight years ago, when the Society accepted the hospitality of meeting in a business office, a hospitality which was so limited that it did not even include a freelunch and which, nevertheless, called forth some very strenuous protests. I believe this policy was eminently right. That insurance organizations of all types whether private, mutual or State, have derived a tremendous advantage from the organization and work of the Casualty Actuarial Society, does not I believe at this time require any proof. Whether this advantage has expressed itself in higher profits or larger dividends, or lower rates, is immaterial. These advantages have not been paid for, no payment has been exacted. In a true scientific spirit the Society has remained, and I hope always will remain, an organization of individual professional workers and scientific students. The field of inquiry, in which these students do and should work, need not be limited to the one comparatively narrow aspect of price. Insurance science is a legitimate and important aspect of social, as well as of mathematical science. The method of approach in this branch of scientific inquiry will always remain primarily a statistical one, for insurance to a very large extent is the very embodiment of practical applications of the statistical method. May I, therefore, conclude with a plea for the preservation of statistics as such, if not in the name, at least in the spirit of the Casualty Actuarial Society.