THE FIRST FIFTY YEARS

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I. HOW WE BEGAN

In the beginning . . . the earth was without form, and void; and darkness was upon the face of the deep.

—Genesis 1:1-2

Upon carried motion, the president was authorized to appoint a committee. . . .

—Minutes of First Meeting, C.A.S.[1]

Let me say at the beginning that this is not a history of the Casualty Actuarial Society. I have neither the time nor the talent to do the research and analysis necessary for such an undertaking, and more importantly, there are others eminently more qualified if a definitive history is to be written. I hope such a history will be written some day. This is but a footnote to that undertaking and if, in this presentation, you find that I have given a certain skewness to the story, an offbalance of the facts, if the wrong things are emphasized and the right ones omitted, please forgive my wayward pen. There is such a vast amount of material, important and trivial, serious and silly, dull and lively, that I have had to be selective to stay within considered and considerate limitation, and I have selected, quite frankly, what interested or amused me, thinking, I hope rightly, that it would interest or amuse you.

In the span of history fifty years is brief indeed, but in the span of the life of a man or of an actuarial society fifty years encompasses tremendous change, so that the earlier is hardly recognizable in the later. It is fashionable to point out that the past fifty years have witnessed greater changes in the pattern of our lives than had perhaps the preceding fifty decades. Our infant Society was born into an ancient world where horses and beards were still seen on the streets, where the Atlantic Ocean was still a very wide body of water, and where no casualty actuary, to my knowledge, had ever heard of the negative binomial. But the forces of change were on the move and we may well consider the year 1914 as the birth date for a new world, as well as for our new Society.

On May 28, 1914, a group of men, meeting as the Statistical Committee of the Workmen's Compensation Service Bureau, decided that what they needed, in view of the problems presented by the new workmen's compensation laws, was a professional society. One month later the Arch-

duke Francis Ferdinand of Austria was assassinated. On July 27 our organizing committee addressed a call to such persons as might be interested in joining a casualty actuarial and statistical organization, and the next day Austria declared war on Serbia. The organization meeting of the Society was held at the City Club of New York on November 7, the day after Japan took Tsingtao from the Germans. That day our charter members not only founded the Casualty Actuarial and Statistical Society of America*, adopted a constitution and by-laws and elected officers and a council, but also listened to the presentation of three papers (one of which was by our still active member, Win Greene), ate their first Society dinner at 7:00 P.M., and digested it with ten after-dinner speeches. Times have changed!

The First World War, of course, was destined to influence profoundly the course of history for both the world and our Society, but nothing in the record of that first organization meeting indicated even an awareness of its progress. At that time Europe seemed far away indeed.

What was of much more pressing interest, perhaps, to our group of pioneers, was the new spirit of adventure that seemed to be taking hold of American industry. It had been on January 5 of this same year that Henry Ford announced his five dollar minimum wage and his eight hour day, and on July 1, 1914 the broad new New York Workmen's Compensation Law became effective. Mark Sullivan called it a period of "dynamic energy accompanied by a dynamic humanitarianism."[4] A new day was dawning!

Here were the required elements for the founding of a successful actuarial and statistical society: dynamic energy, dynamic humanitarianism, an eight-hour five dollar day, a whole wave of new workmen's compensation laws taking over one state after another, a body of men inspired by and somewhat overwhelmed by the new problems these laws presented, and a few men who were prepared to act boldly.

II. THE PIONEERS

There were giants in the earth in those days.

—Genesis 6:4

You shall sit at the feet of Winfield Greene, that slughorn tooter tough,
Or become a second Michelbacher—though one is quite enough.

—Clarence W. Hobbs[1]

* This was the original form of our name. The words "and Statistical . . . of America" were amputated in 1921[2] supposedly without prejudice to the statistical element in our membership, though with considerable unhappiness to our founder.[3]

One of the benevolent dispositions of Providence seems to be that when, in the course of human events it becomes necessary to have giants, giants are provided. So it was in the founding of our country, and so it was also in the founding of our Society. Isaac M. Rubinow, James D. Craig, Joseph H. Woodward, Benedict D. Flynn, Albert H. Mowbray, Harwood E. Ryan, William Leslie, Gustav F. Michelbacher, George D. Moore, Winfield W. Greene, Leon S. Senior – these charter members were also elected presidents of the Society and each gave his own unique contribution to its achievements. There were in all ninety-seven charter members, though only forty attended the organization meeting. Many of them were outstanding men and made outstanding contributions, but any selection by me of some would undoubtedly run the risk of omitting others of equal importance. The charter member presidents were giants enough and to spare for the birth of one actuarial and statistical society.

Dr. Isaac M. Rubinow is the acknowledged founder of our Society and the first president. He was what one might call a fortuitous circumstance, a chance occurrence, that had no good excuse for being in the business when our time had come. He belonged in the social sciences, not in business, and he was in business really just long enough to found our Society. Dr. Rubinow was born in Russia and brought up in Manhattan. He took a medical degree, but practiced only a short time, went to Washington in government service for a few years, and in 1911 came to the Ocean Accident and Guarantee Corporation as Chief Statistician. This job lasted less than five years. He then joined the staff of the American Medical Association and after that the Federal Trade Commission, leaving this to become the director of the American Zionist Medical Unit in Palestine, next the director of the Jewish Welfare Society in Philadelphia, and, for the last seven years of his life, the secretary of B'nai B'rith.

One thing that seems clear about Dr. Rubinow was his deep dedication to the cause of social insurance. In 1913, before the organization of our Society, he had already published a book entitled, *"Social Insurance with Special Reference to American Conditions,"* which ran to 525 pages. Win Greene relates that he found the book most useful in the work he did in early 1914 for the purpose of establishing a basis for Workmen's Compensation rates under the New York law effective July 1, 1914. Dr. Rubinow, from all accounts, was a man of strong opinions and of liberal social convictions. Emma Maycrink, who took a course under him at the New York School of Philanthropy, says that, although she has "always opposed socialist tendencies," she found him quiet and one who spoke with authority.

Others have called him "opinionated" and "outspoken," but all agree that he was a man of very real ability, an expert in social statistics when experts were really needed and when our business was first called upon to establish rates and procedures for workmen's compensation insurance. He was chairman of the first statistical committee that laid the foundations for the compensation rate structure. He prepared the "Standard Accident Table" which was the guide for ratemaking until useable experience became available.

He was not, of course, universally admired – what pioneer ever is? And it is told that at least one company threatened to prohibit membership in the Society on the part of its employees if he was to continue as president. This seems to have been because of his "socialist tendencies," and apparently it was no more than a threat. Nevertheless, twenty years later Dr. Rubinow, himself, writes, "I have not altogether forgotten the sharp conflicts and sometimes bitter feelings centering around the term 'social insurance' and its proponents in this country in years gone by. Perhaps if it had not been for that unhappy antagonism I might still be actively in the field, yet happily those days are gone."[2] Or are they?

Of the other ten charter member presidents only seven were college graduates and seven were members of the life actuarial societies, but the correlation between these two was not perfect. Two of those who did not graduate from college, Craig and Flynn, were Fellows by examination of the Actuarial Society of America, Craig serving once as president of that society and Flynn as a member of the Council.

Michelbacher was the youngest, being only twenty-three at the time the Society was organized and thirty-three when he became president. Michelbacher has been the most financially rewarding member of the Society, having allowed us the royalties from his book, *"Casualty Insurance Principles"* for many years. He is the only one of the ten to have become a company president.

Senior, like Rubinow, was born in Russia. He came to this country at the age of fifteen, graduated from New York University at the age of twenty and then had to wait a year till he was old enough to be allowed to take the Bar examinations. He was the master of five languages.

Greene wrote poetry (and perhaps still does) and introduced his papers with literary allusions, whereas Leslie had an engaging way when it came to beguiling insurance commissioners. Woodward had an extremely warm and friendly personality; Ryan had a keen analytical turn of mind. Moore was a practical statistician.

Of the fifteen papers published in Volume I of the *Proceedings,* ten were written by these charter member presidents. All of them have contributed to the *Proceedings,* some very frequently, and many did tremendous service in the early development of the science of workmen's compensation ratemaking.

One man must be mentioned here among the pioneers who was neither a charter member nor a president. Richard Fondiller was admitted to membership as a Fellow on February 19, 1915 at the second meeting of the Society and was thereafter the most useful member the Society has ever had. For thirty-five years, from 1918 to 1953, he served as Secretary-Treasurer handling the vast amount of detail of that office with considerable satisfaction to most people, though there was an occasional grumble that the thick lenses of Richard's glasses kept him from seeing what he did not want to see. He also was a member of the New York Bar and a Fellow of the Society of Actuaries. To a young Associate attending his first Society meeting, and to some of us for years after that, his reports on the meetings of the Council made us imagine that the Council had met on Mount Olympus with all the power and prestige of Zeus and the pantheon.

III. SOCIAL INSURANCE

Am I my brother's keeper?

—Genesis 4:9

"In matters of sickness or unemployment insurance, etc., the opportunity is ours and it is before us, always provided we shall succeed in convincing the public that we shall approach it in a spirit of pure scientific inquiry."

—I. M. Rubinow[1]

It is a little difficult for us in this disillusioned and unsettled day to recapture the enthusiasm for progress and social reform that went along with the Ford five dollar day and the bright new workmen's compensation acts. The people and their government were on the move and industry was acting, at least at times, as a cooperative handmaiden. Our Society was born out of the needs of the first great wave of social insurance legislation and many of our charter members had the commitment of their profession to seeing that the new ideas were successful. Emma Maycrink remembers that at that time Joseph Woodward suggested that she sign up for a course in social insurance because it "was the next big move in the insurance world." Dr. Rubinow had great hopes for the Society as an instrument for the advancement of the social welfare, and believed it to be "quite

obvious that the United States, having made the first step, is bound to proceed with its ever broadening policy of social provision against the social ills. Throughout the country a powerful propaganda for sickness insurance, maternity insurance, old age pensions, unemployment insurance, and mothers' pensions is rising."[2] This was on February 19, 1915.

Shortly thereafter Dr. Rubinow, by then the secretary of the Social Insurance Committee of the American Medical Association, saw evidence of a growing and friendly interest in social insurance on the part of the medical profession in the publication of a comprehensive AMA committee report on the subject.[3] The AMA's attitude seems to have changed materially in subsequent years.

The propaganda which the doctor saw rising, though it may have been of influence in the medical profession and quite possibly elsewhere in the country, actually had little effect on the production of social insurance papers by the members of our Society, if workmen's compensation is excepted. Our Fellowship examinations, however, carried questions such as the one in 1919 on the "Principles and History of Social Insurance": "(a) What is social insurance?" and "(b) What effect will the unsettled conditions and industrial unrest throughout the world be likely to have in connection with social insurance?"

Perhaps the scarcity of papers on the subject was due partly to the fact that our members were too busy with the problems facing them day by day in the fields of insurance currently being written and partly to the very real lack of enthusiasm for social insurance among some of our outstanding insurance executives of the time. In 1922 Mowbray gave a presidential address on "The Value of the Social Point of View in the Conduct of the Casualty Business," but he was the actuary for the National Council on Compensation Insurance and, therefore, somewhat above the disciplines of the free enterprise system. Under Mowbray's presidency Professor Leo Wolman of the New School for Social Research addressed the Society by invitation on "Unemployment Insurance."[4] The record does not give the reaction to this of the various insurance executives.

Very little more was said in our *Proceedings* about Social Insurance until 1928 when Dr. Rubinow, writing from the professional detachment of his position as Executive Director of the Jewish Welfare Society in Philadelphia, contributed a paper asking the question, "Can Insurance Help the Unemployment Situation?" in which he seemed to be sounding a note of disappointment: "It was always my ambition," he said, "to see this organization of highly trained experts become not only the center of

technical information on insurance matters, but also a force for extension of the insurance principle into greater social usefulness."[5]

The great depression came shortly thereafter and presented us with many acute social problems which could not be ignored, but the prevailing point of view among insurance men was, I imagine, fairly expressed in Tom Tarbell's presidential address of May 15, 1931. "Society . . . in the United States," he said, "still places the responsibility of providing food, clothing and shelter upon the individual, provided he is physically and mentally fit to assume that responsibility."[6] Many of us, perhaps, who hold Tom Tarbell in our hearts with great respect and affection, though we may have accepted that point of view at the time, have been forced to move away from it today, however reluctantly.

There were two good papers on Social Insurance in the next decade inspired by the introduction of our national Social Security program. The first, a most learned treatise on "Social Insurance and the Constitution" was by Clarence W. Hobbs,[7] who, of all our members, might properly be allowed to speak from Mount Olympus, since he was what one might call an official's official, being the special representative of the National Association of Insurance Commissioners to the National Council on Compensation Insurance. This paper was presented on November 15, 1935, just three months after the United States Social Security Act had been passed by Congress and signed into law. It was a very thorough discussion of the subject as anything Clarence Hobbs did was thorough. He expressed basic opposition to the national program because to him it seemed "too one-sided," "not conciliatory," and he was convinced it was completely unconstitutional. He was expressing what seemed at the time the prevailing viewpoint of insurance men, or at least of conservative insurance men, and one wondered at that time what other kind there were.

But two years later at the November 1937 meeting we were presented with a refreshingly free wheeling paper, entitled "Social Budgeting," by that most independent of all actuaries, W. R. Williamson, then actuarial consultant to the Social Security Board.[8] It is hard to characterize Bill Williamson either as a liberal or as a conservative. The news magazine *Time* once asserted that he was "too conservative even for the Travelers" from which company he had graduated into the New Deal atmosphere of Washington. This was said of him during one of his many running battles with our National Social Security approach. But a review of his utterances in our Society would hardly indicate conservatism. Most of us, in fact, thought him a bit on the radical side even if he did not agree exactly with

the way the New Deal was handling Social Security. We also felt that the subject was too political for actuaries and continued in general to ignore it. The 1939 examinations, for instance, had not a single question on social insurance.

Eleven years passed from the time of Tom Tarbell's statement of rugged individualism at the depression's depth, through the New Deal, to the entry of the United States in the Second World War, and not a single company actuary showed concern through our *Proceedings* for what was happening in the social insurance field until Jarvis Farley stole the show at the November 1942 meeting with his paper, "An Approach to a Philosophy of Social Insurance." It was a considered paper, well planned and well expressed, and most of us in the mood of the time nodded approval as he unfolded his theme. Two brief excerpts will suffice to show how time and technology can play havoc with philosophy.

> "When the war is over the country will have a national debt many times greater than ever before. . . . The interest burden alone will require, in effect, that everyone of us work several hours more each week."[9]
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> "The American people must decide in effect how many hours a day they are willing to work, and must buy only those things which that amount of time can pay for. We as a people must recognize that we can have social insurance if we want it, and as much social insurance as we want, but we must first ask ourselves how many of all the valuable choices offered to us we can afford to have, and how much of each."[9]

Comment on Farley's paper did not come from company actuaries, but from two Social Security actuaries, Robert J. Myers, who had just become an Associate of the Society at the time, and our "radical" member Williamson, and also from Professor C. A. Kulp of the University of Pennsylvania, a Fellow of the Society. They all disagreed strongly but gently. A quotation from Williamson makes one wonder how the Travelers could have found him too conservative. "I do not recommend protecting the citizens from securing a fair knowledge of what they may be in for when social budgeting gets under way, nor do I see why they should wait till 'they know all.' Under such caution marriage would be impossible, new enterprises would not arise, the spirit of adventure would die. The times are auspicious for more pioneering, not less, more enterprise, more effective American ingenuity."[10]

At the same meeting that Farley presented his paper, Professor Ralph Blanchard told us:

> "If it is proposed that the government furnish an insurance service which is generally needed, there are four tenable answers: that the service is entirely impracticable, that the government cannot properly furnish the service, that private

initiative can furnish it to better general advantage, or that it should be furnished by the government, either direct or through the agency of private carriers. In any event the actuary should lend his special competence to the solution of whatever problems may arise."[11]

This was the sort of thing one could say from the ivy-covered towers of Columbia University.

The next year, 1943, Williamson wrote once more on Social Security,[12] and then for the next twenty-one years there have been just two papers, an invitational address, the report of one seminar, and a few book reviews dealing with the subject. No president has found it of sufficient moment to make it the subject of his address. An invitational address on medical care insurance was given by Gilbert W. Fitzhugh, President of the Metropolitan Life Insurance Company, at the May 1963 meeting. It expresses the position held by many insurance companies, which is rather parallel with the current position of the American Medical Association and rather far removed from the position that seemed implicit in Dr. Rubinow's hopes and in the employment of Dr. Rubinow by the American Medical Association in 1915.[13] The doctor would, I suspect, have been rather disappointed.

On the other hand our examinations for some years have been doing fair justice to the subject. Dr. Rubinow would be happy at that.

IV. EXAMINATIONS, ADMISSIONS AND MEMBERSHIP

Think it not strange concerning the fiery trial which is to try you, as though some strange thing happened to you.

—II Peter 4:12

With an altruism almost incredible in this practical age, our Society has opened a campaign for the training of our future competitors. There is after all no other meaning to the system of examinations inaugurated a few weeks ago.

—I. M. Rubinow[1]

The First Syllabus: One of the first tasks to which the Society addressed itself was the establishment of a system of examinations for membership. Joseph H. Woodward, Actuary of the New York State Industrial Commission, was the first chairman of the Committee on Examinations, and the first syllabus and rules regarding examinations were adopted by the Council on March 29, 1915.

This first syllabus was ambitious, that for Associateship being in four parts, each part having four sections, or sixteen sections in all. Part I cov-

ered elementary algebra, plane trigonometry, analytical geometry and, of all things, double entry bookkeeping. Part II covered advanced algebra, differential and integral calculus, finite differences, and probabilities. Part III included compound interest and annuities certain, statistics, life annuities and assurances, and again, of all things the elements of economics. Lastly Part IV included the practical side of the business: practical problems in statistics, policy forms and underwriting practice in casualty insurance, practical problems in insurance accounting and statistics, and insurance law.

The syllabus for the Fellowship examinations was much simpler, consisting of only two parts, each containing four sections. Part I covered calculation of premiums and reserves, inspection of risks, and the adjustment and settlement of claims, investments of insurance companies, and an all-encompassing section called "current problems." It is a clear indication of the bent of mind of our founders that the whole of Part II, one half of the entire Fellowship examination, was devoted to Social Insurance or its relatives, covering the principles and history of Social Insurance, compilation and use of census or other government statistics, systems of invalidity, old age and unemployment insurance, and the calculation of premiums for and valuation of pension funds.

Although the syllabus was most ambitious in its requirements for Associateship, it was immediately evident that the practical situation at the time made the syllabus unworkable. Announcement was, therefore, made that only Part IV, that part covering the practical side of the business, would be required and given for enrollment as Associate in 1915 and that only Parts III and IV would be required and given in 1916 and 1917. Parts I and II would not be required until 1918. This waiving of Parts I and II was later extended to 1919 and again to 1920.

The first examination, then, of the Casualty Actuarial Society were held October 6, 1915, and consisted of Part IV of the Associateship only. Since there were no Associates presently enrolled there was no one eligible for the Fellowship examinations and none were given. The first question given carried a table of sickness experience of a European Local Sick Benefit Society by principal age periods 1909 and 1912, and asked the candidate, given this table, to discuss the differences in the sickness rate of the two sexes by age. A later question in the same examination is of interest because it gives the first indication anywhere that I can find that the Society knew there was a war on; this question read: "Discuss the probable effect on workmen's compensation experience of the great increase

in the manufacture of war materials in the United States. What points should be considered in estimating the catastrophe hazard in the war munitions industries?"

Thirteen candidates passed these examinations and were enrolled as Associates as of October 22, 1915, just sixteen days after they had taken them. This constitutes a record in speed our current examination committee would do well to emulate. Of the thirteen successful enrollees one is still active in our affairs, our "radical conservative," W. Rulon Williamson, then known as William R. Williamson and on the staff of the Travelers Insurance Company.

The next year, 1916, the examinations were shifted to May and have remained there ever since. Parts III and IV of the Associateship only were required and given and Part I only of the Fellowship was given, though Part II was not waived for admission as a Fellow. There is no reason given for this omission and one is led to the conjecture that no one was ready and registered to take it.

One of the questions on the Fellowship examination is of particular interest to us today because, among other implications, it rears the ugly head of Schedule P. It is in three parts:

"a. Explain the uniform rule prescribed by law in several states for computing liability loss reserves. . . .

"b. Is this rule properly applicable to workmen's compensation insurance?

"c. Formulate a rule for computing loss reserves under workmen's compensation insurance policies which would apply with equal justice to a stock company charging low non-participating rates and a mutual company charging high participating rates."

Eight more passed these Associateship examinations and were enrolled as Associates October 27, 1916, and two Associates passed Part I of the Fellowship examinations.

On May 2 and 3, 1917, again the abridged Associateship examinations were given and for the first time a full set of Fellowship examinations. Six more passed the Associateship and two were transferred from Associate to Fellow by examination. The honor of being the first Fellows of the Society to achieve that status by examination went to A. H. Brockway and Robert J. McManus, both characteristically from the Travelers.

The 1921 Revision: But there was developing within the Society a certain uneasiness. To some it seemed a bit anomalous to set up a syllabus for enrollment as Associate, only half of which was actually required year after

year. The whole question of examinations was reviewed and a comprehensive report made by the Educational Committee.[2] Apparently some statisticians had been a bit restive and were asking for more than equal treatment. The committee determined, however, that the difference between the actuary and the statistician "was mainly a slight difference in point of view" and that there should be no distinction in examination requirements between the two groups. The committee felt that there was some virtue in pursuing an easier examination policy in the earlier years of the Society with the conscious expectation of tightening up as we grew stronger, citing the example of the Actuarial Society of America as a worthy precedent. Then the committee discussed the distinction between Fellow and Associate, expressing the opinion that the Associateship should be more than merely a step toward the Fellowship, and should "be an evidence of certain qualifications which might justify an executive of a casualty company entrusting certain work definitely to those who had so passed Associate examinations."

The committee then proposed a radical change in the syllabus which abridged the Associateship portion materially, retaining generally the elementary mathematics and the practical insurance problems of the old Part IV though adding the word "simple" in front of "practical problems." The more advanced mathematics, statistics, and life contingencies were transferred to the Fellowship portion and Social Insurance which had been the main thrust of a full half of the old Fellowship examination was reduced to two words in one section which read: "advanced practical problems in compilation and use of statistics relating to casualty (including social) insurance problems." This report was adopted May 28, 1920 to be effective in 1921. Our syllabus had finally become practical indeed.

The 1925 Revision: But this did not last for long. On November 17, 1925, the Council adopted a second complete revision of the syllabus, which concentrated *all* the mathematics sections into the Associateship and *all* the "practical problems" of the insurance business into the Fellowship. Gone was the concept that a casualty company executive might entrust certain work to Associates. Henceforth Associates might gain all the needed know-how from college textbooks.

The 1941 Revision: And here it rested for sixteen years while many of us present-day old-timers sneaked into the Society. In 1941 the Society decided that an Associate should be qualified for an element of trust from the company executive after all and reintroduced insurance practice to the Associateship by adding two non-mathematical sections: Policy Forms

and Underwriting Practice, and Casualty Ratemaking Procedures. Social Insurance was most honorably restored to a full section of the Fellowship, but it was no longer considered "practical" enough to share with casualty insurance the "practical problems" questions by the parenthetical "(including social)".

The 1948 and 1955 Revisions: Effective with 1948 Algebra was dropped, and, although Harmon T. Barber[3] in his 1951 presidential address rather warmly lauded the value of mathematical disciplines, mentioning geometry with especial affection, the most radical "de-mathing" of our examinations in our history then followed with the elimination of *all* mathematical sections except Statistics, Probability, and Elementary Life Insurance Mathematics in the 1955 Syllabus. Still more of the "practical" insurance sections, including the one on Social Insurance, were transferred from the Fellowship to the Associateship, and "Machine Methods" was now introduced as a field of questioning for would-be Fellows. This was the high-water mark in "practicality" reached in our fifty year history.

The expressed theory behind this shift in emphasis was that examining a candidate in basic mathematics was unnecessary, since a good working knowledge was implicit in the sections devoted to applied mathematics. Although this theory was probably sound enough, the candidates did not understand it that way, and proceeded to demonstrate, by their wretched showing in the remaining sections, that they, along with some vocal elements in our membership, thought we were letting down the bars.

The 1960 Revision: Then the pendulum swung back. The nature of our mathematical requirements was the subject of an open meeting of the Educational Committee in May, 1956, and also received thorough discussion at several Council meetings. Finally effective with 1960 "General Mathematics" as the first examination was introduced with considerably stiffer mathematical requirements than ever before, and in 1963 we finally achieved mathematical status, or sold out to the competition, depending on your point of view, when this section of the Associateship examination was sponsored jointly with the Society of Actuaries.

The history of our examination syllabus has been a long and confusing story of high theory and practical compromise and the last chapter is not written. There will be many more changes. It can be said honestly, however, that the examination process has done a good job of selection. We who are already in are appalled at the level of learning currently required of candidates, feeling full sure that we could never get in again were we

thrown out, but the approach is constantly changing. What was difficult for our parents was easy for us, and *our* high hurdles will be low hurdles to our children. Each generation solves its own problems and wonders why the folks who came before had so much trouble with the problems so conveniently solved today.

The difficulty has not always been in mathematics. Our old friend Charlie Crouse had no trouble with Laplace and Poisson – we called him "Duck Soup" Crouse because of the time he was presenting a summary of a paper before the Society and was progressively covering blackboard after blackboard with the most involved mathematical development when suddenly, apparently sensing the rather dazed and submerged condition of his audience, he turned from the blackboard and said, "Now the rest is duck soup." Duck or chicken, most of us had been in the soup all along. The moment gave comic relief and a battery of august actuaries split their sides. At any rate, Charlie Crouse was denied membership year after year because his very real mathematical aptitude did not help him pass the accounting examination, which he attempted regularly every year. Finally the gods, or the examination committee, took pity on him and he passed.

The generally unsung heroes of the examination system have been the members of the Examination Committee who have put in much time and energy with no reward. It used to be that we had a fairly regular seven year progression. Each new member of the committee started as third man in the Associate section, advancing to become chairman of that section in his third year, then graduated to the Fellowship section for three years, the last as chairman, and in his seventh and last year, if spirit and health held out, he had the ineffable honor of being the general chairman. This practice was highly desirable as providing continuity of content of examinations and also was easy on the President since he had to persuade only one new man to accept service on the committee each year. The system nearly collapsed in 1930 and we almost had a mass resignation when the candidates presenting themselves for the Associateship jumped to sixty-three, more than there had been for the preceding three years combined. Upon investigation it developed that a Professor Warren of the University of Manitoba had given his class in actuarial mathematics the choice of either taking his final examination or one of the examinations of our Society covering the same field. Naturally the students flocked to our examinations as a way both to acquire professional standing and to pass the course for a fee of only five dollars. Norton E. Masterson was chairman of the Associateship section at the time and deserved what came to

him, since the young man who suggested the idea to the professor was working for Masterson at the time.

Other Routes to Membership: As an alternative to passing all the examinations set forth in the syllabus the rules have until recently permitted Associates who have passed certain portions of the Fellowship examinations to submit a thesis on an approved subject in lieu of the remaining examinations. In more recent years, Associates of twenty years standing have been permitted to waive *all* the Fellowship examinations by the presentation of an approved thesis. For many years also candidates for Associate membership who have reached a certain level of age and experience in the business were permitted the substitution of a thesis for all the Associateship examinations. Although the so-called "paper route" to membership has not been heavily traveled, it has produced some, though not many, useful papers and valued members. It has also been a source of confusion and embarrassment. There was the question of jurisdiction as between the Examination Committee and the Committee on Review of Papers, since the assumption has usually been made that a paper so submitted should be a useful addition to the *Proceedings*. This was finally resolved in favor of the Committee on Review of Papers. There was also the question as to whether or not the criteria for the acceptance of papers from members for publication in the *Proceedings* should also apply to "paper route" papers. The rule was finally amended to require that a thesis submitted in lieu of Fellowship examinations "shall be of a character which would qualify it for printing in the *Proceedings*."

The Society was also embarrassed from time to time with the assumption by basically unqualified candidates that the "paper route" was a road of admission especially designed for them. The greatest embarrassment of all occurred occasionally when a candidate, usually of some moment in the business, after obtaining approval of the subject, produced with evidence of hard labor, an unacceptable paper. For many years the Society needed both members and papers rather urgently, or so we felt, and the "paper route" served its day. That route was closed in 1962 and no longer may the submission of papers be substituted for the taking of examinations.

The original constitution permitted the Society, upon the recommendation of Council, to admit persons as Fellows without examination by ballot with not more than four negative votes and not less than twenty affirmative votes. This was later changed to three fourths of the Fellows present and voting, and is still in effect. At an early date Council was

granted the privilege of waiving the Associateship examinations for candidates who had certain minimum experience qualifications. This privilege was withdrawn in 1962.

The "invitation route" has been at times extensively used by the Society, though now seldom taken. In the early years, however, when we were striving for recognition and the candidates presenting themselves for examination were few, it was a most useful practice to invite into membership prominent insurance executives, many of whom, as Ham Barber expresses it, "had never turned the crank of a Monroe." Most of these gentlemen accepted graciously; in fact some leaders were not averse to letting it be known that they were receptive. They paid their dues, which was important in view of the thin condition of the Society's treasury. Although it is not in the written record, it is had on good authority that the secretary-treasurer in those days would send each of the elected non-actuarial Fellows a full set of the *Proceedings* together with a bill. Apparently the accounts were collected in full. Not only were these members of value financially and in the matter of prestige, but many of them contributed usefully to the *Proceedings* and more particularly to the discussions.

In 1951, when the Society extended its interest to property insurance we added several members from that industry through the "invitation route." The Secretary-Treasurer did not, however, send them the nearly forty volumes of *Proceedings* by then published together with a bill. By then the tables were turned: instead of being a publisher's overstock, early *Proceedings* had become collectors' items.

V. MEETINGS AND PROCEEDINGS

Come now, and let us reason together.

—Isaiah 1:18

A feast is made for laughter, and wine maketh merry.

—Ecclesiastes 10:19

It is quite evident that offices and officers, dues and thoroughly enjoyable dinners, even scientific papers and publications will not alone accomplish all that we hope for, unless all our work is influenced by a few underlying principles.

—I. M. Rubinow[1]

The Pattern: For the first two years of our history we held three meetings a year, settling down thereafter to the basic pattern we have today of a spring and a fall meeting. The only break in this pattern came with the

Second World War when the May meetings were dropped from 1943 to 1946, and no meetings were held whatever during 1944. That year, in view of the emergency situation, we suspended the by-laws quite arbitrarily and continued the officers of the Society for a second year without benefit of election.

The war had a most dramatic and rather permanent effect on our *Proceedings.* For some years the size, if not the quality, of the volumes had been growing to the point that Volume XXVIII, covering the November 1941 and the May 1942 meetings, contained an amazing 651 pages and was three inches thick. The wartime shrinkage was dramatic. Volumes XXIX, XXX, and XXXI contained respectively 208, 127, and 88 pages; the last, being for the year in which we held no meetings, included a presidential address and one paper only. With the resumption of two meetings a year in 1947, the decision was made to have each volume cover both meetings of the same year, so that Volume XXXIV includes the May and November meetings, both of 1947. Since the war the volumes have seldom been more than an inch thick. The question of why our members were more prolific before the war than after has been a matter of considerable concern and in 1954 a Committee on Development of Papers was appointed. In spite of their efforts the quantity of papers seems not to have increased, though quite possibly the quality may be better.

One thing that has remained unchanged for fifty years – the volumes have always been blue.

Business Meetings: Our business meetings, prescribed by the Constitution, have been uniformly dull. Only twice, so far as I have been able to discover, has the breath of life momentarily sparked the sessions. The minutes of the annual meeting of November 15, 1918, show that we elected *three* vice presidents, with the single word "resigned" following one of them.[2] The record gives no more. Yet the circumstance is charged with potential drama and questions keep pressing – why should a candidate resign after he had been nominated and elected, and so soon that his successor could be elected at the same meeting? One can picture the turmoil, the running about, the whispered consultation between the chairman of the nominating committee and the presiding officer. I have queried several members who were listed as present at that meeting, but they just can't seem to remember anything except that there was an unusual hullabaloo. After forty-six years the picture has faded.

The second incident I have not found in the records. It is remembered by Charlie Haugh, though the exact date has faded from memory.

I tell it as he told it to me. It has always been the custom for the Society to accept without question the slate of candidates presented by the Nominating Committee. At times only one candidate for an office has been named and then that candidate is elected. If the Committee decrees that there shall be a contest, it nominates two contenders and the membership duly chooses between the two. Only once and it must have been in the Thirties, some Philistine rose and nominated a candidate for president in addition to the single candidate named by the Committee. Consternation reigned this time also: ballots were now needed; tellers had to be appointed; paper had to be torn into little squares; the Nominating Committee's confidence was shattered. The vote was taken and the count was a tie vote. Again more paper was torn up and passed out. In the run-off the candidate of the Nominating Committee won and orthodoxy has prevailed ever since.

Sociability: Much of the lasting achievement of our Society has not been in the formal meetings nor yet in the printed *Proceedings,* but has developed through the fellowship of the off-hours spent at our semi-annual meetings. Matt Rodermund at the piano; Ham Barber telling a story; Charlie Crouse arguing in a loud voice all night long outside my bedroom door, with whom, I never knew; Arthur Bailey at the hotel bar, late at night, with a soft drink and an attitude toward life that warmed our hearts. We could and did say all manner of nasty things about Arthur Bailey during those years when he was the keeper of our consciences as the actuary of the New York Insurance Department Rating Bureau. But we learned to respect his integrity and stature from knowing him in the after-hours. It is these times we remember best and conjure up when reliving the past fifty years. I regret that time and space restrain me from indulging in a host of reminiscences.

The events of one meeting, however, were so unique that it is still most happily remembered, and was called to my attention by two past presidents. I shall give it here in the words of Charlie Haugh, the central figure in the drama.

> "The first meeting of the Society following my election as president was held at the Biltmore, where I had reserved a room for the night before the meeting. The importance of the office in the eyes of the staff of the hotel was evidenced by my waiting until midnight to be assigned my accommodations, which turned out to be a cot in the Turkish bath located in the sub-basement!
>
> "On the day of the meeting, about noon, Richard Fondiller was

called out and returned quite disturbed. He whispered to me that a bartender with a portable bar was outside and asked what we should do. I immediately adjourned the meeting with the announcement that drinks were available in the reception room, and it proved to be a very popular innovation. Later we learned that some organization of women (not the WCTU) had ordered the bar for noon that day, and the Society was billed for a few gallons of martinis and manhattans. Richard seemed to believe that neither the indignity with which the president had been treated the previous night, nor the fact that we had not ordered the bar and therefore might well believe it to have been a friendly gesture on the part of the management warranted our refusal to pay the bill."

Harmon T. Barber says that this event "came near to establishing a precedent which was found very difficult to upset at the next few meetings. It seemed to be much more sociable to imbibe publicly under the lights, than to slink off with a few cronies to a darkened corner of a subterranean lounge." On one thing Ham Barber is misinformed: Actuaries never "slink off."

Our Literary Tradition: Erudite quotation starts with Rubinow, who in his second presidential address broke into Latin with *"Feci quod potui, faciant meliora potentes,"* which he then translated as, "I have done what I could. Let those who can do better."[3] It has been with us most fashionable to open our papers, or even each chapter, with a quotation from classical or other literature. Today I am following a worthy precedent in the pattern of my chapter headings. Two who have been most adept at this sort of thing have been Tom Carlson and Laurie Longley-Cook, who have seldom let an opportunity slip for the apt quotation. Arthur Bailey occasionally quoted from the Bible and Gus Michelbacher had his favorite source, the old mandarin of Christopher Morley.

The most extensive use of quotations will be found in Volume XXXVIII. Tom Carlson in his monumental work, "Rate Regulation and the Casualty Actuary," opened each section with a useful quotation. The paper was a masterpiece for the insurance learning it encompassed, and the quotations added considerable brilliance to the whole. Since Tom was representing the Bureau point of view I felt it encumbent on me in my discussion of his paper to state the case for the Independents, with all the quotations I could muster, aided by Bartlett and any other source I could find. We had fun that day, and I still chuckle a bit at the quotation from *Kon Tiki,* a best seller of the time, which, as used in the discus-

sion, represented the National Bureau as a half-blind shark which had to have the independent pilot fish show him the way to get about.[4]

Some members have excelled in literary parody, the two masters being Win Greene and Clarence Hobbs. These same two gentlemen were equally adept at producing topical skits, bringing us much enjoyment in an evening's light entertainment. Matt Rodermund seems currently to have inherited this mantle. Clarence Hobbs was also our most noted versifier, being given to rhyming at the slightest provocation. A couple of quotations have already been given in this paper, and space does not permit much more. One quatrain from "The Lady Casualty and Her Servitors" presented at the Society's twenty-fifth anniversary should by its content be repeated here:

"So now our goodly Society we hail with three times three,
As it rounds the happy milestone of its quarter century;
And while our Lady's service does not favor longevity,
When the fiftieth anniversary comes, may we all be there to see!" [5]

Many others, besides Clarence Hobbs, are back with us in spirit enjoying our fiftieth anniversary celebrations.

VI. THE SOCIETY'S PROFESSIONAL CONTRIBUTIONS

And ye shall know the truth, and the truth shall make you free.

—John 8:32

In spite of the confident words uttered by Dr. Rubinow in 1914, scientific rate making is still a goal rather than an accomplishment.

—W. W. Greene[1]

Our Society was founded for the purpose, fundamentally, of applying scientific principles to the insurance business. The founders were convinced that Casualty Ratemaking could be made scientific, a conviction shared probably by no one else in the business at the time, and then proceeded upon a very small foundation to build a science. It was an act of considerable faith and courage, and a measure of the men who did it.

The first paper in Volume I of the *Proceedings* was a brave beginning: "Scientific Methods of Computing Compensation Rates" by Dr. Rubinow, our founder. The second paper, "How Extensive a Payroll Exposure is Necessary to Give a Dependable Pure Premium?" by Albert H. Mowbray, has become a classic, the foundation on which much of the subsequent work done on Credibility Theory has been built.

Credibility: In my research for this historical excursion I asked various members what they felt were the more significant contributions made by our Society. There was a considerable consensus that perhaps the most distinctive contribution made has been the development of statistical procedures for recognizing experience too limited to receive full credibility, "the Theory of Non-Credibility" as Russ Goddard put it. Although the work has generally been done by individuals, the Society has provided the incentive and the forum, and the running record in the *Proceedings* has made a steady evolution possible.

From that first work by Mowbray there has been a continuous stream of papers adding new insights, and making it impossible for a reviewer to do justice to them all. I must make a selection and shall unfortunately have to omit mention of many important contributions.

Perhaps one of the most significant meetings of the Society was held the afternoon of May 20, 1918. This was a "credibility" afternoon. First Albert H. Mowbray added further to his earlier work with "A New Criterion of Adequacy of Exposure," followed by "The Theory of Experience Rating" by Albert W. Whitney and "The Practice of Experience Rating" by G. F. Michelbacher. Reading the Whitney paper today one feels the inherent drama in it, though perhaps at the time his audience, like a CAS audience today, was polite and a bit sleepy and uncomfortable in those small hotel chairs. (Actually the meeting was being held at the Yale Club in New York City.)

The first sentence explained, "This paper traces in an informal way the general line of reasoning that was pursued in an investigation into the theory of experience rating which was made recently by the Actuarial Section of the National Reference Committee on Workmen's Compensation Insurance."[2] He did not mention the names of the actuaries, but we find they were Greene, Flynn, Moore, Mowbray and Woodward, every one a charter member of, and destined to be in time, a president of the Casualty Actuarial Society.[3]

The task before this Actuarial Section had been "the problem of experience rating," he said, which "arises out of the necessity . . . of striking a balance between class-experience on the one hand and risk-experience on the other." He then proceeded to give us a step by step description of the committee's work on this problem. To them it seems to have been pretty rough going. Dr. Whitney's paper is studded with such revealing phrases as, "In the first working out of this problem the assumption was made that . . .," and, "Mr. W. W. Greene, chairman . . ., proposed as

an alternative treatment the assumption that. . . ." Then, again: "As Mr. A. H. Mowbray has pointed out, however. . . ." Later work on Credibility Theory takes all this for granted, but we must remember that this was the first time through the forest and considerable circling around for direction had to be done and a good deal of underbrush had to be hacked through.

The problem of a workable formula continued to be elusive until "Mr. Greene made the suggestion that in equation (22) the second term of the denominator be taken as a constant." and finally as a result of Mr. Greene's suggestion they gave us

$$Z = \frac{P}{P + K}$$

and behold the formula we have all learned to know and love! "The simplicity of the formula," Dr. Whitney commented, "is remarkable."

Of course $Z = \frac{P}{P + K}$ is not so great a discovery as $E = mc^2$ nor as unalterably true, but it has made life much easier for insurance men for many generations. Mr. Greene must have been a very brash young man to have made so many suggestions considering the fact that he was only 30 at the time, but he must also have shown great promise, since the committee had made him chairman, or was that because he was at the time Special Deputy Commissioner of Banking and Insurance for the State of New Jersey and came all the way from the other side of the river?

The third paper that day, Michelbacher's "The Practice of Experience Rating," picked up where Whitney left off and gave "the development of a practical plan from fundamental theoretical principles."[3]

It was, indeed, quite a day!

And there it rested for over ten years. There were good papers on ratemaking but not much new and original work until Francis Perryman started writing papers in 1932. Ten years after that Arthur L. Bailey appeared on the scene, and from then on there has been a continuing submission of notable papers on Credibility Theory. Tom Carlson has said that Arthur Bailey was "probably the most profound contributor to casualty actuarial theory the United States has produced."[4] It is rather fashionable for the author of a good mathematical paper even today to start with a quotation from the works of Arthur Bailey. Not only were his mathematical developments outstanding but his English text was lucid. His language broke through the fog even for lay actuaries. An example is the following cogent statement of our basic actuarial problem:

> "Thus the losses paid by an insurer never actually reflect the hazard covered, but are always an isolated sample of all of the possible amounts of losses which might have been incurred. It is this condition, of never being able to determine, even from hindsight, what the exact value of the inherent coverage was, that has brought the casualty actuary into being."[6]

Arthur Bailey often expressed amazement at the statistically unorthodox development of credibility theory. He can be quoted to this effect in a dozen different places. Writing of the need for different schedules of credibility for the three compensation loss components, serious, non-serious, and medical, he says, "It is at this point in the discussion that the ordinary individual has to admit that, while there seems to be some hazy logic behind the actuaries' contentions, it is too obscure for him to understand. The trained statistician cries 'Absurd! Directly contrary to any of the accepted theories of statistical estimation.' The actuaries themselves have to admit that they have gone beyond anything that has been proven mathematically, that all of the values involved are still selected on the basis of judgment, and that the only demonstration they can make is that, in actual practice, it works. Let us not forget, however, that they have made this demonstration many times. It does work!"[7]

It has not always been easy to persuade state officials and underwriters that credibility factors were valid. I can recall the occasion when one of the more thorny insurance commissioners remarked rather testily, "You have supported everything else in the filing with actual experience, where is the experience supporting your credibility factor?" Whereupon we hastily changed the subject. Gus Michelbacher tells of Albert Whitney "presenting a mathematical demonstration of the fundamental principles underlying experience rating. One underwriter asked, 'Where did you get that Z factor?' and braced himself expecting a formidable explanation. Mr. Whitney thought for a moment, adding to the suspense of the occasion, and then replied, 'In Michelbacher's dining room!' "[8]

The history of the CAS would be most incomplete without reference to the negative binomial. If the negative binomial had not existed already, I am sure Lester Dropkin or those twins, LeRoy Simon and Bob Bailey, would have invented it. Tom Carlson has called attention to the fact that actually it first appeared in the CAS *Proceedings* in 1942 and that Arthur Bailey derived it again in 1950.[5] But that was all until 1959. Now, for the past five years it has become a basic doctrine in the actuarial neo-orthodoxy of the 1960's and a big help in making automobile merit rating scientific. It was only a few years ago that the experience of a single car was considered by most of us, even some of our more respected members, as

being of so little credibility that to allow it to affect the rate was out of the question. Yes, the negative binomial was a great discovery.

The Society is in debt to L. H. Longley-Cook for preparing "An Introduction to Credibility Theory."[9] In this treatise he has brought together in concise and readably simple form the essential elements of credibility theory as they have developed over the past fifty years. This has great value, not only for students for whom it was prepared, but also for fellow actuaries who have neither the facility nor the time to wade through all the papers written on the subject. This is normally the second step in the conquest of the unknown. The pioneers come first hacking their way through the forests, trekking up blind valleys, and doubling back to try a new approach. It is a painful and prolonged process. But after this has been done the cartographer comes along and with a high skill at illumination makes the going clear, or at least clearer, for the rest of us.

Retrospective Rating: Although retrospective rating did not come into use until 1936, it is interesting to note that one of the early professional controversies in the Society was between the advocates of prospective and retrospective rating, with those who did not believe in either taking potshots at both. This was in 1916. Clairvoyance won, and retrospective rating had to wait twenty years. Space prohibits a discussion of the arguments, pro and con, put forth at that time; one gets the impression in reading them now, particularly between the lines, that the chief argument for retrospective rating was that it provided some opportunity for the stock companies to compete with the mutuals on large risks, and the chief argument against it was that the agents would never be able to manage it. The best potshot taken against experience rating in general was provided by Win Greene in 1916.

> "It has been the intention of the writer to indicate in the foregoing pages that in all probability any system of compensation rates dependent upon the experience of the individual risk will be if universally applied so unpopular as to be virtually unworkable; that the chief genesis of the demand for consideration of individual experience in rating compensation risks lies in the hope for competitive advantage on the part of the carrier; and finally that although experience rating plans have sincere advocates among those who feel that such plans may constitute powerful influences toward accident prevention, there is reason to fear that experience rating in any form may harm rather than help the employee through giving the employer a financial interest in minimizing his workmen's claims."[10]

> "The employer should not be encouraged in the false idea that his own experience is a proper criterion for an equitable rate."[10]

Just two years later Win Greene was made chairman of the actuarial

committee that developed the experience rating credibility formula. He was a good soldier.

At this early time Dr. Whitney had shown interest in retrospective rating, and it may be that this interest was transferred to his admiring young understudy at the National Workmen's Compensation Service Bureau, Paul Dorweiler. During this twenty year gap, between 1916 and 1936, Paul Dorweiler did considerable work on excess insurance costs, which laid the foundation for the later work underlying the first retrospective plans. In 1927 he presented a paper in which he gave the first treatment in our *Proceedings* of insurance that takes effect in excess of given loss ratios.[11] This paper won the Society's Woodward Prize. His presidential address in November 1933[12] was credited with providing the method used in compiling the experience underlying the insurance charges in the 1936 plan.[13] His 1936 paper, "On the use of Synthetic Risks in Determining Pure Premium Excess Ratios for Large Compensation and Liability Risks," is still read and its techniques admired by students of retrospective theory.[14] And finally in 1941 he presented a paper in which he explained the graduation work that had been done in the name of the Actuarial Committee of the New York Compensation Rating Board.[15] Dorweiler's methods and results were used for the insurance charges of the revised New York retrospective plan and also became the basis of the 1943 National Council retrospective program under which retrospective rating really attained the considerable importance it now holds.

It should be acknowledged that Paul Dorweiler has earned the right to be called the actuarial father of retrospective rating, one of the important achievements of our profession.

The American Remarriage Table: Most of the professional work recorded in the *Proceedings* was done by individual members or industry committees; very little has been done in the name of the Society. One significant contribution made by the Society itself was the development of an American Remarriage Table. This was the work of a committee appointed in 1929 and was completed for presenting to the Society at its May 1933 meeting.[16] Of the seven man committee that did the work Paul is the only one left with us.

Table of Mortality for Disabled Lives: For this work the Society appointed a committee of three in 1937, which was expanded to seven in 1938. Paul Dorweiler was chairman of this committee. The completed work was presented to the Society at the November 1946 meeting.[17]

Schedule P: An area where the Society has very definitely been unsuccessful in making a contribution, in spite of repeated efforts, has been in the improvement of, or hopefully the elimination of, the Schedule P reserve formula for compensation and liability loss reserves. Schedule P is an ancient monstrosity; its basic pattern was with us when the Society was founded, though originally it was designed to apply to liability insurance only. In Volume II of our *Proceedings* we find Robert K. Orr presenting the same basic criticisms of the formula approach to loss reserving as have been given ever since.[18] In 1924 the Society appointed a committee to see what could be done about Schedule P. After six years of hard labor this committee presented its report.[19] This did not go so far as perhaps most members of the Society would have liked, but it did make some valid recommendations, which were ignored completely by supervisory authority.

In 1947 another committee was appointed with Joseph Linder as chairman. This committee's report, released in 1949, was much more sweeping in its recommendations than the former one.[20] To actuaries, in general, it made sense, and it received about as much attention from supervisory authority as the former report had. The problem, of course, is that the Schedule P formula is written into the laws of many states and into the hearts of many state supervisory officials.

VII. OUR LIFE INSURANCE BRETHREN

And Joseph knew his brethren, but they knew him not.
—Genesis 42:8

There is no reason why this Society should not be as valuable to the Casualty business as the Actuarial Society of America has been to that of life insurance.
—Western Underwriter[1]

In spite of the fact that many of our charter members were also active in the life societies, we as an actuarial body were for years held in rather low esteem by those, our professional brothers. We were a bit upstart at the beginning and our scientific stature had yet to be proven. Then, too, an actuary has been generally considered to be "one who makes those calculations as to the possibilities of human life upon which the issuance of life insurance and annuity contracts depends,"[2] and was not thought to include non-life hazards in his field. But we were keen for recognition and a bit of fraternization, and item 2 of the minutes of the Council meeting held September 17, 1919, begins a story: "The Board of Governors of the American Institute of Actuaries was requested to consider the subject of

a joint meeting in May 1920. No response having been received, the matter was laid on the table to be taken up at the next Council meeting." Item 1 of the minutes of the next Council meeting ends the story: "The plan to hold the May 20 meeting in Chicago in conjunction with the American Institute of Actuaries was laid indefinitely on the table."

Actually there has always been considerable cordiality shown us by our life friends. At our twenty-five year celebrations both Mr. Ray D. Murphy, President of the Actuarial Society of America, and Mr. R. A. Hohaus, President of the American Institute of Actuaries, were present as official guests, Mr. Murphy being also a Fellow of our Society. At other times, too, a life society president has attended our annual banquet at our official invitation, and we have been proud to have him. But I think it fair to say that the life Societies have in the past made it clear that, much as they liked us, they could not consider us professional equals.

Most of us were not inclined to blame them. We recognized that our general mathematical stature was somewhat lower than theirs, though catching up rapidly. Nevertheless, we held our heads up with the conviction that a Casualty Fellow had to know more about "other things" than a Life Fellow did.

And then, as so often happens, a threatened danger from without has helped to bring about unity within this, our actuarial family. Because so many charlatans were calling themselves "actuaries" without having achieved membership in *any* society and were performing legally required functions as though they were really actuaries, the Society of Actuaries and the Conference of Actuaries in Public Practice took the initiative to approach us as well as the Fraternal Actuarial Association with the thought that something might be done to set up standards of accreditation and that government might then cooperate.[3] (Here *we* suppressed a bit of snobbishness, for these other two organizations did not require *any* examinations for membership.) A CAS committee was appointed in 1958 to meet with representatives from the other organizations. Their work has proceeded with a remarkable degree of harmony. Finally a Joint Committee on Organization of the Actuarial Profession was set up with one member from each of the four societies, L. H. Longley-Cook being our official representative, though the practical work of this committee has required the participation of many members of all four societies, and very considerable work has been done by William Leslie, Jr., Daniel McNamara, and Frank Harwayne. This committee has prepared a charter, by-laws, election procedure, and committee structure for the organization of a new actuarial

body, the American Academy of Actuaries, with the expectation that membership in the Academy may be recognized as a satisfactory accreditation for an actuary. To start with, the Academy would take in the entire membership of the four parent bodies, except that Associates would require several years of experience in responsible actuarial work.

At our May 1964 meeting the CAS approved this project, and, the other three bodies having also given their approval, the joint committee is in the process of seeking federal incorporation. To date our bill has passed the Senate, but not the House.

But this is not all. We *have,* in fact, grown more respectable. We no longer invite into membership dues paying executives who have never "turned the crank of a Monroe" and by far the greater part of our membership has had to pass examinations. We now require a general mathematics examination identical with that of the Society of Actuaries, and we have had as our president from 1961 to 1963 a former life actuary who is an unusually able ambassador of good will, and an able actuary to boot. We have had others like him, of course, before Laurie Longley-Cook took up our cause, and they have all helped, but Laurie has really done the job. The relationship we had sought in 1919 when we were young and gauche has now developed in the fullness of time. The 1963 fall meetings of both the Society of Actuaries and the Casualty Actuarial Society were scheduled for consecutive days in the same city with each body inviting the members of the other to its meeting and with a part of both programs on subjects of common interest. This recognition of joint interest and the joint work, mentioned above, which has been done by the four actuarial bodies looking to the formation of the American Academy of Actuaries speaks well for the future of our profession.

VIII. WHAT IS A CASUALTY ACTUARY?

Those that be near, and those that be far from thee, shall mock thee.

—Ezekiel 22:5

There are many who freely condemn the effects of the entrance of the actuarial mind into the development of the compensation business.

—Sanford B. Perkins[1]

One of the more challenging questions the members of our Society have had to grapple with, and one which has generated considerable disputation, has been, in its general form, "What is an Actuary?" and in its

more specific form, "What is a Casualty Actuary?" Like Narcissus we have indulged to a greater extent than we sometimes like to admit in gazing at our reflection, and sometimes it has pleased us and sometimes not. More often than not we find that the image has been distorted because the reflecting pool has been roughly agitated by such rude fellows as underwriters. They have not always understood and respected us, and we do like to be understood and respected.

Those Underwriters: Benedict D. Flynn, our fourth president, once wrote:

> "When the Society was organized, the Casualty actuary was generally looked upon with suspicion by underwriters and others connected with the general management of the business. This was due to the fact that the actuaries had very little knowledge of underwriting principles and the underwriters had not been educated to the value of the statistical methods used by the actuary."[2]

It was perhaps out of delicacy that Mr. Flynn spoke of this incompatibility between actuaries and underwriters as in the past. Actually, like Punch and Judy, these two important members of the insurance household have been taking swipes at each other off and on, mostly on, throughout the history of the Society. This has been both bad and good for the business. It has been bad when it has been accompanied by ill will and obstructive behavior; it has been good when it has operated as a natural system of checks and balances between two properly imperfect approaches to truth. An insurance business completely devoid of underwriters or of actuaries and completely dominated by the other, in this complicated world of today, would be carrying within it the seeds of its own destruction. It is interesting to speculate what problems we would have been faced with at the time of the Supreme Court's Southeastern Underwriters Association decision if the casualty business had not had the thirty year benefit of the Casualty Actuarial Society.

Actually there exists a great deal of mutual respect between actuaries and underwriters, and there have been many able insurance executives who have combined the best characteristics of both. William Leslie, Sr., in a presidential address put it well when he said, "The practical actuary and the logically minded underwriter should have no trouble getting along together but the theoretical actuary and the illogically minded underwriter had better keep away from each other."[3]

There have been several historic verbal battles between the two groups in the past, but space permits me to mention only one. One has the feeling in reviewing this particular fracas that both parties had their tongues in their cheeks, for they were both practical and logical men, both Fellows

of this Society, the one a chief executive of his company, the other destined to be in a few years.

In his November 1925 presidential address G. F. Michelbacher had told the Society that he did not think much of the use of judgment in rate-making.[4] He contrasted it with the scientific, or, as he called it, the statistical method and said, "It must be obvious that the writer's preference is for the statistical method." Nevertheless he did allow a minor place for judgment, though hardly the kind of judgment exercised by underwriters, rather a refined sort of intellectual process one might call actuarial judgment that interprets facts "as to their adequacy and reliability" and chooses "that particular formula which best meets the requirements."

Frederick Richardson, U. S. Manager of the General Accident, was undoubtedly the most literate and articulate gift Great Britain has ever contributed to American insurance. He presented a written discussion of the Michelbacher paper at the next meeting, in which he gave what has been perhaps the most lavish description of the underwriter's picture of an actuary yet written. Here it is in part:

> "It might not be out of place at this time to express our sense of satisfaction and our fellowship pride in (Michelbacher's) recent appointment to a still more eminent position in the world of insurance. His entry into the arena of practical and competitive business has some significance for us, and will, moreover, have an influence upon his own views concerning the aims, and ambitions of Insurance Companies. Doubtless he will continue to seek the lofty and hyperborean atmosphere of these assemblies, here to renew and refresh his spirit in studying and admiring the lambent fires and coruscations that play about the *aurora borealis* of abstract mathematics. . . . Here we can gather together with our *a's* and our *b's* and our *x, y, z's* and our graphic outlines to postulate the cost of this and the incidence of that, and if our calculations happen to go awry, we, individually, are not a penny the worse. The burden of the experiment falls upon others. . . ."[5]

It took Gus Michelbacher six years to make his reply. I have no explanation of the long delay, save that Frederick Richardson was always a formidable opponent worth training for. At the May 1932 meeting Gus made his reply in a paper he called "Criticisms and Answers."[6] He did not mention Richardson but he made his purpose clear by quoting that stuff about "lambent fires and coruscations." In this good, well-reasoned, document his point was that "the criticisms of the actuary himself might have been in order at one stage of the game, but they are no longer tenable," and that "criticisms of the results produced by actuaries fail to take into consideration the nature of the problem. . . ."

And then Frederick Richardson landed on him with a whole avalanche of quotations, from, among others, a seventh century Chinese poet, Vol-

taire, and the *Brooklyn Citizen*. It was a sharp and delightful piece presented to the November 1932 meeting as a discussion.[7]

Michelbacher, as the original author, replied, in part, "Ouch," and, "We are not so far apart after all. This may be because I have modified my ideas with the passage of time."[8] An actuary is always a gentleman.

The Fire Actuaries, if any: Early in our Society's career we cast sidelong glances at the fire insurance business. In 1923 Harwood Ryan wrote, "Finally we should begin to look forward to the time when the rates for fire insurance will be statistically determined,"[9] and Edward R. Hardy expressed the hope that fire insurance ratemaking might become some day semi-scientific, though he found considerable resistance within the industry.[10] After that, for more than twenty years, we stopped looking over the fire fence. With the SEUA decision and Public Law 15 it seemed reasonable to expect that fire insurance ratemaking might see the need for at least a veneer of science, if nothing more, to make it acceptable to state regulatory authorities in view of the danger of Federal take-over. The CAS began to hope we might be called in as firemen for a burning house. Though the call was amazingly slow in coming we started our preparations for it. In 1950 we amended our constitution to state that our field of endeavor was "insurance, other than life insurance," instead of the former words "casualty and social insurance," and we tried very hard to find a name for ourselves that would be more inclusive. At one informal discussion session we experimented with such names as, "Property and Casualty Actuarial Society," "The Actuarial Society for Insurance other than Life," and similar monstrosities, with no success whatever. Finally we concluded that our old name was the best name, that, after all, fires were really casualties in the broad sense, and our fire friends would have to take our name if they wanted to take us. In 1951 several fire insurance ratemaking papers were presented to the Society, and we took in by the invitation route six prominent men in the fire insurance ratemaking field. What is a casualty actuary? He may be a fireman.

While it is true that, compared to casualty underwriters, old time fire underwriters are even more intransigent about actuaries, the fire insurance business is gradually getting used to the actuarial invasion it has suffered, and science is creeping into their processes. *Mirabile dictu!*

As We See Ourselves: Casualty actuaries have always fancied themselves as normal people, in spite of popular expressions to the contrary, which we view with a modicum of tolerant amusement. Here we have Syd Pin-

ney's delightful dissertation, given at the celebration of Richard Fondiller's twenty-five years as Secretary-Treasurer, when he asked us in succession:

> "*What* is so peculiar about an actuary?"
> "What *is* so peculiar about an actuary?"
> "What is *so* peculiar about an actuary?"
> "What is so *peculiar* about an actuary?" and
> "What is so peculiar about an *actuary?*"[11]

This last, he maintained, gave the question the proper perspective. He presented, we felt, a superb performance, delivering a measured speech of well over a half hour completely from memory and in the most delightful spirit. When he was finished we were all convinced that there could be nothing possibly peculiar about an actuary, particularly if his name was Syd Pinney.

We are quite proud of our profession, though we have suffered somewhat from the sense of inferiority imposed on us by our older brothers, the life actuaries. But we have insisted that qualities are demanded of us not required of life actuaries. In comparing the two, Francis Perryman said, "Casualty business involves less technical and mathematical work and essentially deals more with what I term 'humanities' and quicker results are looked for. . . ."[12]

Francis Perryman was perhaps one of our very finest casualty actuaries and certainly our most respected actuarial philosopher. He had a high regard for the profession and saw for it a proud future, which he expressed in these words – no one has said it better:

> "His (the actuary's) will be the privilege of using his knowledge and experience, his actuarial tools and methods, so as to solve our modern social problems, our problems of living together in harmony and cooperativeness; for this is sure, that such problems will be solved and they can be dealt with only by scientific methods that are in essence those we use and know as our actuarial ones."[13]

This is the casualty actuary at full stature and we are indebted to Francis Perryman for giving us the dream – a dream not unlike the one Rubinow had when we were founded.

In gathering data for this paper I have had help from a great many people. I fear I cannot acknowledge them all, but I am particularly indebted to HARMON T. BARBER, RALPH BLANCHARD, PAUL DORWEILER, RUSSELL P. GODDARD, WINFIELD W. GREENE, CHARLES J. HAUGH, JOSEPH LINDER, NORTON E. MASTERSON, EMMA C. MAYCRINK, GUSTAV F. MICHELBACHER, MATTHEW RODERMUND, LEROY J. SIMON, *and* NELS M. VALERIUS. *But above all I am indebted to* LAURENCE H. LONGLEY-COOK, *not only for his good counsel, but also for the use of his library, a*

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