TRANSACTIONS OF SOCIETY OF ACTUARIES
1968 VOL. 20 PT. 2 NO. 56 AB

RESEARCH IN AGENCY OPERATIONS

1. What research programs in regard to agency operations of interest to actuaries have been completed recently or are now being conducted by
   a) Insurance associations?
   b) Individual companies?
   c) Other groups within or outside the insurance industry?
2. How useful are the existing agency research findings? Are they adequate? What additional research studies should be initiated? By whom?
3. What statistical and analytical studies are being furnished agency departments? To what extent are actuaries involved in planning and conducting these studies?

Philadelphia Regional Meeting

MR. HAROLD G. INGRAHAM, JR.: The best way to introduce this topic is to describe briefly the three books published by LIAMA early in 1967 under the heading "LIAMA Research in Perspective." Each book deals with different areas of LIAMA's research, describing what has been done and the problems that all of us in the life insurance industry face in our efforts to serve the public most effectively.

The book entitled *Recruiting, Selection, Training, and Supervision in Life Insurance* deals with sources of recruits and the establishment of recruiting goals. The validity of the aptitude index is discussed, and a research study indicating the beneficial effect on survival rates of precontract training is described. A section is devoted to the selection and termination rates of agency managers. An evaluation is made of specific methods of training and supervision—for example, the sales method index, which was designed by LIAMA as a tool to help the supervisor help the agent to analyze his strengths and weaknesses and to benefit by past experience.

Another book, *Cost and Compensation in Life Insurance*, illustrates a method of determining a general agent's present and probable future financial situation. It defines and measures the aggregate value of a given cohort of agents on the basis of various survival, production, and policy lapse rates and average per capita costs of induction and maintenance. A functional cost program is described. Considerable space is devoted to patterns of agents' commission earnings and the development of financing plans for new agents.

The third book, *Markets in Life Insurance*, analyzes various sales and ownership trends. Of particular interest are the studies of persistency—by type and length of service of the agent, by premium mode, and by buyer income level—and of orphaned business.

LIAMA has several research committees, and a brief review of a few of their activities in 1967 may be of interest.

Research Selection Committee

1. An Agent-Selection Kit for use in combination companies was completed.

2. A comparison between the estimated per cent of applicants who would be rejected by various cutoff scores on the Combination Inventory, Form 2, and the actual results was reviewed.

3. Work is under way in research on managerial selection involving the use of "buddy nominations" and a modification of the Evaluation Record, which is specifically designed for combination companies.

4. Research is being conducted to evaluate the predictive effectiveness of the Aptitude Index Battery Test used for ordinary-writing agents.

Research Market Committee

1. More detailed analyses of the Buyer Study follow-up—incorporating such refinements as a separation of participating and nonparticipating policies—will be published by LIAMA in the future.

2. A revised Persistency Rater and Annualized Premium Survey were published in 1967.

Research Training and Morale Committee

1. An experimental program on prospecting skills and attitudes was prepared and research begun upon its effectiveness at the end of 1967.

2. A study was commenced to determine the degree to which prospects in various age groups are being contacted for a sales interview.

Research Technical Committee

Some of the topics discussed at the annual Research Planning Conference in 1967 were research into leadership and managerial styles, long-range research on public attitudes, theories of money as a motivator, a compensation research study, and research on the financial impact of the death of the breadwinner on the survivors.

Brief mention should be made of the so-called Yankelovich Report, which describes an attitude research program conducted recently for the Institute of Life Insurance. The objectives were to fill a current information gap by providing up-to-date information on the public's attitudes and opinions on insurance, to feed back on the Institute of Life Insurance's public information programs as an aid in future planning, and to provide a deepened understanding of the sources of life insurance attitudes.

MR. ROBERT H. JORDAN: With respect to research conducted by insurance institutions other than LIAMA, the list is not very long; the area of this research has generally been restricted to LIAMA. However, the Institute of Life Insurance has done some work in this area.

In general the attitude of the Institute is that its research should be of a more fundamental nature and is not to be aimed specifically at such matters as markets or agency operations. It has conducted two studies recently that do have considerable interest to those of us who are concerned with the general subject of marketing. These studies are the attitude research program that Harold mentioned, conducted by the Yankelovich firm, and the study conducted by the Committee on Future Outlook, which was headed by John Miller. A report on the future outlook study was published in a book entitled *With an Eye to Tomorrow.* I believe it contains much that is of interest to the market researcher.

The Institute published a report entitled *A Catalogue of Research and Statistical Projects of Life Insurance Organizations*, for the years 1950–65, which is in itself a significant research project in the area of agency operations. In that catalogue are listed the Institute's research projects, none of which, in accordance with its attitude toward research, can be said to bear directly on the subject of agency operations but several of which have an important bearing on the subject. Some examples are "Life Insurance Ownership and Related Characteristics of the Older Population"; "Insurance Issued and Paid For by Type"; "Insurance Issued Substandard, Declined, Etc.," and "A Pilot Study of Economic Decision Making in the Family."

A study of the entries for other insurance institutions, such as LOMA, the ALC, and the HOLUA, makes it clear that the area of research in agency operations has been fairly well left to LIAMA by other insurance organizations, which seems, of course, to be in order.

MR. WILLIAM M. WHITE, JR.: Although not directly agency research, we feel that there is value in the LOMA cost-comparison analysis. We have only been participating for two years in this study, but we find that it gives us some data, particularly in the area of acquisition costs, which can be helpful.

The study provides an objective comparison with other companies of our cost of doing business, and we are able to identify areas where we might wish to analyze the results in depth.

Also, we find that the instructions for defining the functions and isolating the costs around them are clear and concise. Even if we did not participate, we would probably prepare our unit costs in this form so as to have a better tool for comparing our own internal trend of expenses.

MR. INGRAHAM: New England Life's agency research is principally conducted by a full-time market-research unit of nine people, attached to the agency division. The director of marketing research, who is the head of this unit, is currently the chairman of LIAMA's Research Steering Committee. The four nonclerical members of the unit have varied backgrounds in such fields as econometrics, psychology, operations research, and EDP. None at present have any actuarial training, although we intend to rectify this situation shortly.

The objective of our marketing research department is to provide management with new and improved tools for planning and goal-setting, for evaluating performance, and for improving marketing efficiency. The scheduled 1968 projects call for 119 man-weeks of professional and 144 man-weeks of nonprofessional staff time.

Planning and Goal-Setting

For the past three years we have been using an Agency Operations Plan computer model. This model incorporates such factors as agents' survival rates and production patterns by years of service and policy persistency. It includes field compensation and operating agency expense factors, as well as direct home-office–agency-division costs. It reflects anticipated costs based on the mix of our new financed agents.

The model has proved extremely effective as an agency management tool, not only in determining recruiting requirements to achieve certain goals but also in evaluating our needs for present and future agency expansion against the costs associated therewith. We re-examine the underlying relationships in this model each year in the light of recent performance and changes in the general agent's contract.

There are several other studies which we prepare on an annual basis:

1. *Sales and premium income forecasts for 1969.*—An estimate of the sales and premium income to be expected on the basis of manpower projections and economic activity in the country at large provides a bench mark for measuring actual sales performance.

2. *Market profiles.*—These will be prepared for each agency in December to encourage its use in planning for the following year. It is based on twelve months' sales, from September through August of the prior year. It shows the market potential and degree of sales penetration for each market area and county in an agency's territory. It indicates the degree of competition from and growth rate of competing agencies in a given territory. And it contains a sales profile of the markets being served by an agency and of each full-time agent therein. The sales profiles reflect the sales split by kind, sex, age group, buyer income level, buyer educational level, business insurance, pension trust, and so on. The agent's performance in each category is compared with the company average for agents in his length-of-service group.

3. *Goals for growth for 1969.*—This report will be prepared for each agency in November, 1968. The report will show statistics for manpower, quality of business, agency expense, and sales for a given agency in 1966, 1967, and the first nine months of 1968—together with comparable estimated figures for 1969, based on the distribution of agents in the agency and the yardsticks applicable to over-all agency experience in each category. It is intended as a guide for general agents to the growth and development of their agencies and has proved to be extremely useful in both long-range and short-range planning.

A new study to be initiated this year relates to the value of a policyholder. It will attempt to answer such questions as these: How much does a new policyholder generate in the way of premium income, commissions, new business? What is the probability of repeat business? How much can we afford to spend to place and keep a new policyholder on the books?

Evaluating Performance

We have attempted to establish performance measures at various levels of operation to facilitate isolation of any areas needing attention. The following is a summary of the 1968 studies that we will make in this area:

1. *Agency operations plan, actual versus expected, 1967.*—This projects, for each of the next several years, operational standards for sales, manpower, quality of business, and expenses. This study will compare performance in 1967 with that projected in the plan. We shall also analyze agency turnover rates, production per man, and so forth, to determine where performance exceeded expectations and where it may have fallen short, thus pinpointing the areas responsible for gains and losses.
2. *New England Life and its competition.*—This report will compare our market share with those of our major competitors and the industry.
3. *Pension trust sales by size of firm.*—This report is used as a building block for our market-potential and market-profile studies.
4. *Agents hired in spite of test failure.*—Each year we hire a number of agents who fail the selection tests. Why were these men hired? What did the general agent see that the tests miss? How well did these men do? This report attempts to elicit answers to these questions.
5. *Present value of an agent.*—This report is prompted by such questions as the following: How much can we afford to invest in a new agent or in a second- or third-year man? What is the difference in present value of agents with differing survival prospects?
6. *Adult male and adult female buyer: New England Life versus industry.*—This compares 1966 performance with 1967.

Improving Marketing Efficiency

Knowing where performance is weak is not sufficient to achieve proper corrective action. Information about agents' training or selection methods and about buyer characteristics is often needed. Among the studies in this area that we have scheduled for 1968 are the following:

1. *Territorial boundary studies.*
2. *Agency-management performance.*—This report evaluates the relative performance of general agents and managers appointed from the home office, from other companies' agencies, and from our own agencies.

MR. JORDAN: During the last year and a half, the Provident Mutual has conducted four studies into agency operations.

The first of these studies dealt with the characteristics of the buyers of individual life policies. The basis of this study was information contained in the agent's report and the inspection report, which is normally not coded into our EDP files. Included were such items as the income of the buyer, his worth, his occupation, the total amount of insurance in force, and so on. The characteristics of the buyers and of the insurance that they bought were examined in considerable detail for each of four income groups—$0–$5,000; $5,000–$10,000; $10,000–$15,000; and $15,000 and over.

A second study that was made, which was basically an offshoot of the buyer study just mentioned, was a study of the characteristics of the buyers and of the insurance they bought analyzed by type of agent. We have separate codes for the following classifications of agent: financed agents, full-time career agents, corporate brokers, agents of other companies, and so on. Significant differences in the characteristics of the buyers and of the insurance they bought were discovered among the various types of agents.

In a third study, another offshoot of the buyer study mentioned above, the characteristics of the market and of the business sold in each agency were examined. This study was based on a series of averages computed for each agency—the average income level of the buyers, the average occupational level of the buyers, the proportion of business sold to policyowners, and so forth.

The fourth study, on the "dynamics of the sale," is in process at present. Full-time agents complete a special form for each policy written, on which is indicated the prospecting method, the sales technique used, the number of interviews required to complete the sale, the location of the closing interview, the purpose for which the insurance was bought, and the competition involved (if any). We expect the data in this study to be developed by type of buyer, by type of agent, and by agency in a fashion similar to that described above for the buyer study. We have seen some of the preliminary results of this study on an agency-by-agency basis and find the results to be of great interest to both us and the managers involved.

MR. WHITE: There are three basic objectives of our research activities at Connecticut General: (1) to improve the return on money invested in the development of our field organization, (2) to improve the effectiveness of the products and services that we are providing in the market place, and (3) to improve the effectiveness of the development and supervision of our field men.

To determine the return on the investment in our field plant, we need to know how much it costs to produce an agent. We have prepared a model of our agency manpower, specifically breaking down our new organization people—the agents in their first three years of development—and have tried to develop the net cost spent for such new organization on a per man basis.

We now have the cost portion of a "cost-benefit" analysis. The benefit piece is determined from estimating the available loading in future policies that the agent will write as a mature agent as well as the present value of the future profits from that business. The results of this analysis are still more in the nature of crude approximations. Roughly, the net dollars spent on new agents during the developmental period are on the order of $25,000 per man.

When we look at the benefit side—the expected return to the company resulting from the policies written by the matured agent—we get something on the order of $50,000, resulting from the available loading and present values of future profits from the business written by our average agent in the "old organization." If our figures are anywhere near right, this would mean that we have a net return over development costs of something less than $25,000, because some of this return should be attributed to the investment of other expense moneys.

We have developed another type of field model to project the effects of various actions on our manpower growth. The model was based on our agency field force and analyzes the impact of hiring and retention variations, the growth in average production, and changes in financing plans. The input for this model was derived from a program which analyzes our current agency field manpower in relation to production, financing, retention, and transfers. This model can be helpful in planning for future agency growth in terms of what hiring is necessary and what production is likely to result.

As a tool for helping us plan to meet our profit objectives, we have developed a model of our life insurance business. It contains a number of cells by plan, age, and edition, so that the model will be representative of our total book of business in force. We then inject into this model the sales projections with characteristics of sales by plan and age, together with assumptions as to future mortality, expenses, surrenders, and lapses. The program will generate for the desired number of years in the future the annual statement results. We can also test the effect on the statement results of varying such assumptions as interest, mortality, expenses, and the rate of field hiring.

Utilizing a model of new issue, we have determined the present value of future profits related to the different policy plans. Recognizing that each policy will not generate the same amount of unit profit, we are able to plan with the agency department the specific product mix which will produce the desired total results. The agency department then tries to manage the field organization in such a way that we will get the desired product mix which will generate the total dollar result. Another use of this model is in determining the relative return that we might anticipate from our brokerage operation in comparison with our full-time agency force.

Another factor in improving financial results lies in the area of expense controls. We have developed and are testing some budget standards for our field offices which should be helpful in getting a better fix on what is a reasonable level of expenses for our approximately one hundred offices with many different characteristics. Using a multiple regression (least-squares) technique, we analyzed expense data over the past two years to see what the important operating variables are relative to cost. We have determined as a result of our studies a type of expense standard developed from three items: (1) a flat amount per office, (2) an amount based on the manpower that is being developed in each office related to each of the first three years of training agents and mature agents, and (3) an allowance related to production as measured by the first four commissions.

In the area of research aimed at improving the effectiveness of our products and services in the product place, we are interested in finding out more about who our customers are and what type of business we are doing where. We are in the process of implementing an approach which will enable us to obtain more specific information on all the clients our agents are seeing, whether or not sales result. There is a standarized data sheet which will enable us to get the information needed without, we hope, additional paper work on the part of our field people. Copies of the data sheet will also serve as a means of controlling the progress of a case as it goes through our new-business operations. The information obtained will cover such items as income, estate size, ownership, profession, family status, and the nature of the sales proposal. Upon receipt of the information in the home office, it can be injected into a computer system which will feed back statistics to the manager, giving him characteristics of the business that his agents are writing and the clients his agents are seeing. In addition to office-by-office analysis, we can develop characteristics of the business by larger areas of agency supervision and also by the total company. The profiles of our total business can probably be useful to our managers in pointing out areas where they deviate from the total company patterns. We should also have data on nonsales situations which should help us to analyze the reasons for failure.

I would like to mention one other activity we are currently implementing which might not be classified as agency research. Jack Bragg's paper on "Prices and Profits" stresses the merchandizing importance of the "critical encounter" between the agent and the customer where the actual sale takes place. We are in the process of trying to improve the development and guidance of our new men by making sure that management people are doing the proper job of supervision and are getting the new agents to do the important acts that will lead to more "critical encounters." We call our system an "agency activity analysis."

Since most of our agents work on somewhat of a weekly cycle, discussing their plans to some degree with their supervisors and making appointments for the week ahead, we have tried to develop a special, standardized form to assist in this process. The form will have places for recording their plans for the specific objectives they wish to accomplish in the following week, such as (1) the number of approaches to be made, (2) the number of data sheets to be picked up, (3) the number of presentations to be made, and the like. The agent will sit down with his trainer and fill out what he intends to do at the beginning of the week; at the end of the week he will enter what he has actually accomplished.

This type of information does not deal specifically with business the agent has sold, but it covers the preliminary steps leading up to the "critical encounter" as well as the number of "critical encounters" which occurred. This planning activity sheet is a tool which we hope will help field management to be certain that their men are concentrating on the proper activities and will also help the agents to plan their time better.

The activity records are designed to be put through the computer, so that management can see by agent, office, and field territories the various patterns of activity. In the future we conceivably can develop standards to indicate what a successful man should do in the way of various activities and steps to ensure more critical sales encounters.

MR. JORDAN: In the area of research outside the insurance industry there is one company that specializes in opinion research and makes a regular attitude survey of 2,000 people who are representative of the nation as a whole. This is a general survey, but included in the questionnaire are several questions dealing with life insurance. The basic purpose of the questions dealing with life insurance is to determine the extent to which the public is familiar with certain companies that operate nationally. Once having established the degree of familiarity with these companies, further questions are asked dealing with the public's favorableness toward the companies that are known. It seems likely that other prominent opinion research companies make similar studies.

Important advertising media, such as nationally circulated magazines and national radio and TV networks, regularly make market studies. Generally, studies of this type will break down the audience or readership geographically, by age and by socioeconomic status, to point out the relevance of that audience to the prospective buyers of the products of the company being solicited. Many such studies are made, but they are conducted irregularly, depending on the needs of the advertising medium involved, and are, of course, heavily oriented toward the needs of the advertising medium rather than toward the interests of the insurance business as such. I am not aware of other regular recurring work being done outside our industry.

Isolated research efforts, however, do occur. They are difficult for anyone but a full-time practitioner in the field to keep abreast of. An example of such an isolated effort can be found in a book called *The Economic Behavior of the Affluent*, published by the Brookings Institution. This book deals with persons whose incomes are $10,000 or more. In that study the subject of insurance is discussed very little and is given no prominence in discussions of finances. Two points that can be learned from the study are worth noting here. First, the respondents do not really consider life insurance an investment unless prompted to do so. As one reads this book, it becomes clear that the designers of the study as well as the respondents do not think of life insurance as an investment. Second, the respondents make very limited use of life insurance policies in estate planning.

As for suggested research projects, I think that some work would be helpful in four areas:

1. A more concerted effort should be made to develop a study that would differentiate the characteristics of successful agents and unsuccessful agents. A great deal of effort has been spent on this sort of study already. However, the very low survival rates of financed agents indicate that our progress in this area has been minimal.

2. A study to determine whether something can be done to utilize the sales talents of agents who terminate after twelve or more months under a financing plan. Most of these agents have shown by their survival to that point that they have the knowledge of the insurance business and of the necessary sales techniques that is needed. It seems that the basic problem of most of them is an inability to prospect. One solution that has been suggested is to provide them with prospects and supervise them very closely, but the implications of this solution involve some important distribution-system problems.

3. A study aimed at reducing the extent to which financed agents fail because of inadequate training. This might involve a review of the effectiveness of field training versus home-office training or of the value of greater control in the training process.

4. A study of the relative effectiveness of the various methods of prospecting, with emphasis on the cost of prospecting per unit of business sold.

MR. NEIL W. MACINTYRE: Some of the research findings of insurance associations we find considerably useful, others less useful. The same observations are in order in regard to research in individual insurance companies.

The Mutual of New York is committed to increasing its share of the savings dollars of the American public. As we view it, the one and only way to assure this is to increase our sales outlets. To do this, it seems to us necessary to have an increasing number of agents. Hence we are particularly interested in comparing the combined production and survival rate of Mutual of New York's agents with those of the rest of the industry. We want to ascertain whether we are getting the maximum return per dollar invested in subsidy for new men. We believe that the meaningful statistic in this connection is one that shows the production of survivors of one hundred men hired at various durations under contract.

Other of the insurance associations' annual reports that we find particularly useful include the first-year lapse index and the per cent of the annual increase in insurance in force. This last index takes into account both the new insurance sold and the persistency of business. Incidentally, our lapse rate over the last two or three years has shown a steady increase, both absolutely and in relation to the industry's results. To counteract this, we have instituted a persistency improvement program, which, among other things, provides that business from field underwriters on a "probationary" status will not be accepted if the expected lapse rate, as indicated by the persistency rater on it, is high. An agent falls in the probationary category if his first-year lapse rate is X per cent higher than the company average. This is a new development, and it is still too early to assess the over-all effectiveness of it. We have also effected a change in our managers' compensation formula that provides a negative factor if the lapses in the individual agency are excessive in comparison with the company average.

Additional research studies that I would like to see undertaken include the following:

1. *A study of the agents recruited by managers who are the most successful and least successful in the recruiting of new agents.*—Our experience demonstrates rather conclusively that the single most important factor in the development of a new agent is the manager himself. To my knowledge, surprisingly little research has been done on whether the success is due to the type of agent recruited, to the training program, or to the manager's ability to motivate an individual.

2. *A study of the financing plans for new agents.*—This study would not be concerned with the level of financing; rather, it would provide a detailed actuarial analysis, for example, are the subsidy payments validated by cash commissions, net potential commissions, and so forth; are the various lines (life, health, and group) fully integrated and, if so, how; what is the incidence of the subsidy, that is, how does the level of the subsidy available in the early durations compare to that in the later? I would think that it would be appropriate if an individual actuary undertook this assignment for publication in the *Transactions.*

3. *A study of the renewal lapse rate by premium frequency, size of policy, and so forth.*—A good deal of research has been effected on the first-year lapse rate according to these various policy characteristics, but to my knowledge no similar analysis has been extended to the renewal lapse rates.

I suppose that the statistical studies that we furnish our agency department are very similar to those of other large companies. These include the following:

1. *New agents' results.*—A new agent is defined as one in his first three years with the company, the maximum financing period under the present New York law. The results furnished are (*a*) the survival and production rate of new agents at selected durations under contract; (*b*) the production from the survivors of one-hundred men hired at the same durations; and, finally, (*c*) the so-called subsidy index.

The subsidy index is the ratio of the subsidy cost divided by the production from the survivors. We believe that this index measures effectively the results for the various calendar-year classes of agents, taking into account the cost to the company. If this index changes substantially from one period to the other, we attempt to find the reason for the fluctuation and, if necessary, take a course of action to correct the situation. I might mention in passing that all our production figures are in terms of first-year life and health commissions. If a company's first-year life commissions measure the desirability or profitability of a business, we feel that they are the best measure from the company's viewpoint of the production results of an agent.

2. *Production by class of hiring.*—Our analyses here show the production of (*a*) agents active at year end and (*b*) agents terminating during the year. We have developed for these years the matrices that show both the annual production and annual survival rates at all durations under contract. The framework of our material is basically similar to that described by Dr. John D. Hogan of the Northwestern Mutual in *TSA*, Volume XVIII. However, our methods are considerably less elaborate than his. We use these data in our five-year projection of the company's insurance operations.

I am not entirely sure as to how accurate our projections of production will be for the longer durations—inflation may become an increasingly important factor; the characteristics of the agents may change. From one year to the next, they have given satisfactory results. In particular, our production from our career agents in 1967 was 1 per cent of that projected, using as the standard the analysis of the 1966 production by class. Regardless of the accuracy of our long-range forecasts of production, projections of this type serve a very useful purpose by providing the necessary guidelines for the appropriate course of action so that we may have a reasonable probability of attaining our goals.

3. *Compensation paid agents.*—Periodically we compare the compensation payable under our career contracts with that of certain of our leading competitors. That there will be a level annual production and that the agent remains under contract are among the more basic assumptions.

4. *Comparison of fringe benefits for agents.*—Another type of comparison done periodically is that of the fringe benefits provided under MONY's career contracts with those of certain other large companies.

5. *First-year lapse rate.*—We also examine periodically our first-year lapse rate by various characteristics, such as type of agent contract, size of policy, premium frequency, and the like. In addition to the familiar two-component analysis, we extended our last analysis to a three-component one. With the EDP machines I would suppose that it is entirely feasible to extend the components to *n*. However, we found that our three-way analysis provided all the information, if not more, than we could conveniently digest.

6. *Comparison of compensation paid field supervisor.*—Periodically we compare the compensation paid the MONY field supervisor with that paid by other companies using model-office techniques. Care must be taken in the interpretation of these results. Most field supervisory plans provide for substantial compensation for the recruiting and upgrading of new men. The comparison, therefore, on a company-by-company basis, may be substantially changed if a different model office is used with a larger percentage of business coming from new men.

Finally, in our company the actuarial department is very much involved in the planning and conducting of these studies. More important, our interpretation and comments on the results are solicited. In other words, we have effected a good relationship with our agency department.

MR. WHITE: I would like to mention briefly some of the information that we furnish the agency department. During the past year we have developed a new persistency index. I am sure that all companies try to measure their performance in this area by some means. Our index is furnished by man, by agency, and by field-supervision territory. It is based upon the terminations in a calendar year from the new business written in the two preceding years. The index is calculated by dividing the first commissions on the business terminated in the year by the first commissions on the in-force business at the beginning of the year. An index of this sort is a crude device. We intend to experiment with it to see whether it can be helpful in developing some meaningful persistency standards.

We also furnish the agency department a breakdown of our new sales by various plan categories for each office, agency-supervision territory, and total company. Specific attention is given to the historical progression of certain crucial items, such as percentage of term business as opposed to permanent and the percentage of participating insurance related to nonparticipating.

MR. WILLIAM J. RUSHTON III: When he asked me to appear on this panel, I told Chairman Fuhlrodt that I did not think I knew enough about agency research to contribute. He said, "Forget the research part and just tell us what you, as agency director, want from the actuaries." I want an actuary like Norm Fuhlrodt, that is, one who thinks it is a smart idea to go to the agency director and ask him what he thinks he needs.

I believe that the best general agent is one who feels that his agents are the most important men in the company. I believe that I, as agency director, should have this same attitude to my general agents, that is, that I should treat them as performing the most important and toughest job in the company.

What I am saying is this: I want the actuary to treat me, as agency director, as though I have the most important job in the company and he has absolute confidence in my ability to get the job done and wants to help. I want him to feel as though his job is not simply to keep me from doing mine wrong but to help me do it right, to help me build a field force and improve the quality of the men we have.

Norman Vincent Peale says that we should all take a normal attitude toward our job, and a normal attitude is one that is always slanted on the positive side.

You, as the actuary of your company, are in many ways the most powerful man in it. If, several times a year, you will go to your agency director with a positive attitude and confidence in his ability and ask, "What can I do to help you meet your objectives this year and next year?" you will not only be the most powerful man in your company, you may also be the most important man in it, because you will be helping it to grow.

MR. ARCHIBALD H. McAULAY: The approach of Mr. Rushton to this question differs markedly from the approach of the other panelists. The other panelists seem to consider the actuary as a scientist, cold and aloof, peering through his microscope at the gyrations of the agency department and analyzing its behavior from afar. Mr. Rushton, however, seems to consider the actuary as emotionally involved in, and as a creative part of, the agency department. I believe the latter approach holds out much greater promise for the future.

Mr. Rushton seems to pay relatively little attention to research and appears to concentrate on intuition and trial and error. Trial and error has an honorable and ancient lineage. It can be claimed that it was by trial and error that the amoeba evolved throughout the ages into a fish, which evolved eventually into a land animal, which evolved recently into man. Research, on the contrary, is a relatively modern device. Even though it might be considered heresy in a meeting such as this, I would like to suggest that there are problems for which intuition and trial and error are more appropriate than research. The Edsel automobile is the classic example of the expensive failure of research. It took trial and error to solve the problem of the new type of car the public wanted.

It seems to me that the basic problem in agency is an economic one. To acquire and to retain the high-grade agent we desire, we should be paying him more money. To compete with other savings institutions, we should be paying less money in our sales efforts. When an irresistible force is meeting an immovable object, the solution is probably to be found in intuition and trial and error rather than in research. What is required is a creative breakthrough.

It is interesting to note that at this meeting the two hottest agency topics—topics so hot that they might be considered breakthroughs—were group ordinary and equity-connected insurance. My understanding is that these evolved over the years as a result of trial and error by relatively small companies or even by individual agents and were not the products of research.

Trial and error is unsuitable for a giant company. There is too much at stake. We are fortunate as an industry in having hundreds of smaller companies which cannot afford a research program and have to depend for their survival on intuition and trial and error to find the solution to this agency problem.

It is possible that the hot agency topics which will be discussed at the actuarial meeting three years from today are at the moment being tried out by small companies or even by an individual agent. These pilot operations carried out in relative obscurity are as much worthy of study by the large companies as are the results which can be obtained from research. The ideal, of course, is to have research illuminated by intuition and checked by trial and error.

MR. ERNEST J. MOORHEAD: I am a little worried about what Arch McAulay said a few moments ago about the progression from amoeba to man by trial and error. The question is: Should we really be happy with the result?

Although it is true that actuaries have contributed much to agency research, there is a tremendous amount that has not been done and with which we can be helpful.

Here are two examples of the latter:

The first is, I believe that LIAMA should have a model office available for its own use and for the use of companies, so that each one of us need not go through all that process of developing a model office to test compensation plans, cost patterns, and things like that.

Secondly, I think the subject of general-agency compensation has been seriously neglected. There is a great deal of work to be done on that important subject.

MR. ALFRED G. WHITNEY:* I would also like to make one comment on Mr. McAulay's remarks about trial and error.

Research in the life insurance industry has many similarities to research in the physical sciences. It involves the formulation of hypotheses and the testing of those hypotheses. The chances are fairly good that nothing that is new and vital will be discovered unless there is a large proportion of failures. This is what must be recognized in setting up a research program. We must be prepared to pay the cost of the failures in order to get the benefit of acquiring new knowledge. As Jack Moorhead said, the cost of the failures can be borne much more easily by a joint co-operative research project in an association.

* Director of market research, Life Insurance Agency Management Association.

MR. INGRAHAM: I am prompted by Mr. McAulay's remarks to say that I think it is very important for actuaries getting into agency research not to follow the data and the esoteric techniques of our craft blindly. They should really understand the agency business and know all the nuances that cause the data to show up as they do.

Let me give a simple example. You can see companies' statistical patterns showing that the agents' survival rates are remarkably good and be impressed until you realize that their standards of defining a full-time agent are almost nonexistent and that these agents really have an average production far lower than LIAMA averages for that size company.

Also, it is important, in distilling the mass of statistics that we develop, to get under the skin of the general agents or managers and motivate them when motivation is necessary. One very simple tool, when analyzing the grid of survival and production, is to show that the odds of an agent's surviving the next calendar year are about four or five out of ten. This the manager understands. It can be a very powerful motivator for him to clean house sometimes or to light a fire under some of the agents that are not doing a job.

MR. J. STANLEY HILL: I would like to mention briefly some agency research which I think is a little different from any mentioned here. This is a study of the profitability of business produced by each of our agencies.

We started with the concept that an actuary setting prices works on averages and that the more we can improve those average profits the more successful our company is going to be. I am in a mutual company, but I still think the concept is applicable.

The study looks at several different factors that cause the variation in the profitability of the business. These will vary in different companies. In our case, three of the factors were average premium per thousand, average size of policy, and the persistency of the business produced by each agent within the agency.

A fourth factor had to do with the growth produced by the agency in comparison with the amount that was paid to the general agent who produced growth. This is perhaps the most critical factor of all, because it is where the big money goes and where sometimes there is no return.

The last factor was the amount paid for production versus production produced. This sounds a little peculiar unless you know that in our general agents' compensation scheme, in order to offset what Jack Bragg has pointed out to be the law of diminishing utility, there is a progressive compensation pattern. In other words, we pay him more per thousand if he does more business. Here we need to look at the contract itself as well as the performance of the individual when determining the profitability of this business.

I must confess that the study produced some surprises. We certainly do not wish to create a guilt complex on the profitability of business, but I think we fail to recognize that there is a large variation in the profitability of the different agencies in our companies.

MR. WILLIAM M. SNELL: At Northwestern Mutual we have developed an agency financial analysis which allows us to determine whether our general agencies are making money. In the past we have always been able to determine the profits in each general agency. Last year we were able to tell them where these profits came from. This year we are going to tell them what their profits were, why they were not more, whether they should have been, and what they could have done to improve the situation. It is really two reports—first, the profit that they do receive and, second, why they did not do better.

We combine like general agencies—those in metropolitan cities are combined as one group and those in rural areas make up another group. We obtain from each general agency a list of everything that they do in the course of a two-week period out of each quarter. They maintain a diary, telling what they did, how much time the general agent spent in the selection process, how much time the supervisor spent, and so on. This information is analyzed in the home office, fed into our computer, and used to determine expense figures and to verify that the expenses which the general agent does give us are appropriate. We have the income figures already, since all commission checks are sent from the home office.

By combining this information, we are able to determine what the general agent did and to compare him with those in the same group. Using percentages, we can show the general agent whether he was above or below average for this group.

Regarding lapse studies, this year we will be studying persistency in detail both by agent and by general agency. We will have lapse rates for each agent and general agent. We have been doing this in the past for the first year; now we conduct studies for the first five years by agent, the first ten years by general agent, and beyond ten years only by total company.

Los Angeles Regional Meeting

MR. CHARLES F. PESTAL: In the many years since a paper has been published in the *Transactions* on the subject of agency operations, both the Life Office Management Association and the Life Insurance Agency Management Association have been doing much work. I would like to discuss the role of LOMA, because I have been relatively active in that organization. Practically all the work in LOMA is done through committees, on many of which actuaries serve.

The LOMA Inter-Company Cost Analysis Committee, on which I once served, set ground rules for functional costs so that costs could be compared among companies. One of the functions used by this committee is the selling function, and this has been broken down still further. One subcommittee concentrated on functional costs in the area that we are discussing today. In this depth study on selling it was difficult to compare management-compensation costs with another company, because the differences between urban and rural markets or new branch offices distorted the results.

At the present time I am on the LOMA Cost Analysis Committee. The following statement was made to the committee last November by the chairman of the Financial and Control Council:

> Compared with other industries, the life insurance industry still has to develop considerable knowledge in practical pricing and profitability of operations. One of the greatest areas of lack of knowledge is that of sales and service costs, and the profitability of agency operations. We just do not know (on an objective basis) the real differences in a profitable and unprofitable agency, which represents one of the largest areas of controllable expenses.

William E. Lewis and I were the only two actuaries on the committee at the November meeting. Each of us was assigned a project for the March meeting. Mr. Lewis' project was "The Asset Share Profitability of Current Business," while mine was "The Asset Share Profitability of Future Business." By this we mean the capital value of agents. By taking into consideration future survivorship rates, persistency, product mix, and so on, we develop an asset share profitability of future business from which we deduct the future committed development expenses to obtain the capital value of agents. In measuring the profitability of an agency, we are also interested in the increase in the capital value of agents from the beginning of the year to the end of the year. In general, the asset share profitability of current business plus the increase in the capital value of agents less the actual expense in a particular branch office would give the profitability of that branch office. If we can now divide the branch-office expenses between acquisition and development, we have a means of analyzing the effectiveness of these expenses. Development expenses can be measured against the increase in capital value of agents, in order to develop the rate of return on development expenses. This should be of interest to many companies not only for individual branch offices but also for the company as a whole.

Another November assignment was to develop a way of presenting the results to management. I would like to quote a part of that report.

> To effectively adminster this program, some type of coordinating committee should be organized to steer the development and implementation of this undertaking. Membership would be comprised of representatives of the major departments involved.
>
> Quite naturally, introduction of a profitability measure will involve many areas within the company, some more so than others. In particular, this approach in its development and design is heavily oriented toward the actuary.

LOMA also has a new Committee on Operations Research, which in the main consists of actuaries. I know of at least two papers that have been presented to this committee on agency matters.

At the 1966 annual meeting of the Life Insurance Association of America, a report from the Committee on Sales Manpower stated the following:

> The committee's objective was to sift the research data and other information that is already available, to make any recommendations called for in the light of that information, and to suggest any additional research that might be useful in finding new approaches or solutions. The committee itself concluded that it was neither practical nor within its province to do any independent new research, but that this should be left to existing organizations, such as the Life Insurance Agency Management Association.

It further stated:

> The committee and subcommittees found gaps in basic information about the sales manpower problem. In spite of extensive research by LIAMA, there is still not enough up-to-date information to fully evaluate the problem.

Since the main concern of this report was the recruiting and training of agents, it concluded that more needs to be known about such things as turnover rates, particularly in comparison with other industries, before we can devise new compensation plans.

A recent study, known as the "Yankelovich Survey," was prepared for the Institute of Life Insurance. The three-volume preliminary report is largely involved with the opinions and attitudes of the public toward our industry. Not too much of the report is involved with agency problems. I would like to discuss a couple of points made in the report. One was that the public, partly because of its understanding of commissions and sales contests, senses a lack of objectivity on the part of agents when they propose plans. It is important for us to be aware of this and to do something about it. Perhaps agents can be trained to propose alternative plans;

this might partly offset this attitude. Another point made was that few people would encourage their sons to become agents. I do not know how many would encourage them to become actuaries. High turnover rates, low earnings, and long hours were given as reasons against encouraging persons to become agents.

I would suggest that we make certain that any statistics on manpower that are published are reliable and do not overstate termination rates. For instance, when we compare termination rates of our sales people with those of other industries, we may find that the other industries exclude termination during the initial training period.

Existing agency-research findings are helpful in giving a company some idea of how it compares with the rest of the industry, but they are still not adequate. For example, the lack of agreement among companies on a good definition of a full-time agent affects our use of survivorship rates. These can also be affected by differences of validation schedules among companies and the differences in the proportion of urban and rural agents. As I mentioned above, variations in the length of training periods also have their effect.

If the work being done by LOMA and LIAMA committees is to be useful, the actuary must learn how to apply the reports to the work of his own office. To apply these surveys, he must work closely with the agency people. At Northwestern National Life, I work very closely with the agency vice-president. These statistics that we have been able to develop give him a much better basis for making his decisions. It is frequently helpful to experiment on a pilot basis. For example, we have selected one branch office to test a new management-compensation scheme, which is simply a salary plan with no financing involved. The actuarial department's job is to analyze fully the effect on this on our over-all operation so as to determine whether this is a profitable method of operation.

MR. CHARLES H. CONNOLLY: The facts that have been touched on by Mr. Pestal, particularly the differences among companies, force each of us to consider our agency problems in the light of our own conditions rather than in the light of those that give a particular LIAMA study or LOMA study. For example, in my own company we have for some years been selling in excess of 75 per cent of our business on a monthly-premium basis, usually with preauthorized checks. This makes for a completely different agency-financing problem than that of a company selling 80 per cent of its business on an annual-premium basis.

The different patterns of sale by plan of insurance are also important. Some years ago we studied a large group of agents who had completed three years under contract, to try to establish a pattern for successful agents by measuring the performance of new recruits against the standards for this study. We can give each manager every month a clear picture of the standing of each agent who is still on a financing plan. If the agent is not holding to his original production schedule, the report suggests a drop of $25 to $50 in the amount of his draw. This has been an effective tool for our managers simply because the machine is doing part of the work for him. Being able to blame the home office instead of taking the blame himself when a man must be told that he is a failure makes the manager's job a little easier. Of course, it results in the machine's being cursed frequently in the field.

The matter of agency performance among various territories is one matter that we have worked on extensively with our agency department. We are currently trying to develop a program that will assign a profitability factor to each piece of business sold in the agency, so that we can compare agencies that are selling a broad spectrum of our products with agencies that are not. However, because of the inclination of the manager, an agency might be specializing in one small area that is not producing much profit for the company. We will be able to suggest to the manager that he emphasize other products in his selling that could result in a more profitable over-all operation.

One thing that helps in measuring agency performance, particularly in the area of expense control, is the use of a measure that is simple to apply. I believe that field expenses should be a certain percentage of commissions paid on a particular block of business. I think it makes sense that, if the commission rate is relatively low, it is probably low because the profit level to the company is also low. Hence, we do not want the agency to spend a lot of money developing sales of that product. As a result, I can tell the agency department that, if they will take X per cent of the first-year commissions paid in a given agency, they will have what I use as an allowance for that agency to operate. They can thus grade their agencies and inform those that are not doing a satisfactory job that they will have to improve.

One of our biggest jobs at Southwestern Life was done six or seven years ago, just prior to our beginning a five-year expansion program to double the number of branch offices. The actuarial department had to develop extensive information with regard to where we would go if we realized a certain growth rate and what it would mean if the rate went higher or lower than anticipated. This involved a complete analysis of business on the books at that time to obtain what I call a "maturity schedule" similar to that used by the investment department. First, we got a picture of where we would go if we stopped selling business completely. Then we brought in the probably higher lapse rate on business sold in new territories, the higher turnover rate in agents, and so on, ending with a complete program to reach the goals that were set. We met most of the goals. One that we did not meet was the number of agents recruited, but those whom we did recruit produced at a higher level than we had anticipated, so we actually did get the results we were after. There were variations from the things that the actuary said had to be, so it turned out that they did not have to be.

The matter of capital value of agents mentioned by Mr. Pestal is quite important. We are not in this area yet, but we are planning to undertake some studies on it in the near future. We know that we have some agencies that are going downhill, although it looks as if they are going uphill. This is simply because an agency must maintain a constant recruiting effort. One of our agencies has not done a successful recruiting job for some years, and yet every year its new business is considerably better than the previous year's. The manager is quite satisfied that he is really moving along well, but every year every agent in that office is one year older and every year he is one year closer to either death, affluence, disability, or retirement. Affluence, I think, is one of the greatest dangers; when an extremely strong producer, a real leader, reaches the financial goal he has set, he may slow down or leave the business altogether. He plans to travel or to get acquainted with the wife he has not seen in thirty years because he has been out selling all the time. His children are growing. Suddenly he is no longer a producer. We plan to make a study, based on our own history, of what a man is worth to us. We hope to give each branch manager an annual report that will show whether his man inventory is worth more or less than the year before. It should help to stimulate recruiting and should give the manager a picture of where he is going.

MR. FLOYD T. BEASLEY: The trade association most closely related to the agency operation is LIAMA—Life Insurance Agency Management Association. This organization was formed from the union of the Association of Life Agency Officers and the Life Insurance Sales Research Bureau. Its history dates back to 1916. It is a co-operative, nonprofit organization created—and I quote its constitution—"to promote the welfare and interest of life insurance policyowners through sound and progressive leadership in agency management in all its phases." Because of its interest in and concern for seeking out the underlying facts and relationships in order to arrive at the true solution to the problem at hand, LIAMA has been held in high esteem and has been appropriately referred to as the industry's "scorekeeper."

For anyone even remotely familiar with the LIAMA operation, it is not at all surprising that two of its six self-imposed, specified functions are (1) "to initiate and conduct research, both within and without the life insurance business, which will improve management," and (2) "to initiate and conduct research which will contribute to the welfare of the field organization of the life insurance business."

Therefore, for at least a twofold reason the actuary should be interested in the research programs conducted by this organization: (1) LIAMA is conducting research solely for the benefit of the insurance business and (2) LIAMA, with the co-operation of members of the Society of Actuaries, is applying sophisticated mathematical and statistical techniques to the solution of problems unique to the insurance business. Many have found it profitable to avail themselves of the surveys, analyses, findings, and consultations to be found at LIAMA.

Their research programs with which I am most familiar are of a continuing or emerging nature—ones for which there are not many specific results to be reported at this time but for which there might be significant results to be reported in the future, so that a progress report seems appropriate at the present time. I shall mention six such programs currently under study by the LIAMA staff.

1. *Agency cost and profitability.*—LIAMA, in response to the desires of its membership, has been interested for many years in the measurement and control of agency costs, profitability, and efficiency. There are two basic reasons for this interest: (1) to establish a workable device for control of cost and (2) to improve management's efficiency by developing a philosophy of operation based on the most effective use of time devoted to an agency's various basic functions. It has been LIAMA's contention that it is difficult to operate effectively and efficiently unless you know how your time is being spent. To this end they have developed what they call the AAA (Agency Activity Analysis) in order to determine what is behind the results being achieved by an agency. One of the questions raised when AAA was being developed was, "How does the agency executive know when he is spending more for business than the value of the business or, conversely, when can he well afford to spend more per unit in order to increase volume and maximize profit?" They contend that research is needed to develop better operational measures of the value of business in the evaluation of agency costs.

With the results from the Agency Activity Analysis a company will be able to do a better job of training, supervising, and compensating than it has been able to do heretofore. The Agency Activity Analysis, as its name implies, is essentially a functional time study in which each member of an agency allocates his time into up to thirty-four functions, which in turn are combined into five major functions: (1) recruiting and selection, (2) manpower development, (3) sales assistance and other new-business operations, (4) insurance maintenance, and (5) general administration.

In a pilot study of twenty-one agencies that used the AAA package, LIAMA found that supervisory time was divided among these five major functions as follows:

	Per Cent
Recruiting and selection	14
Manpower development	32
New business	41
Insurance maintenance	6
General administration	7
	100

They have also indicated the possibility of the following findings:

a) The amount of training given to new agents by supervisory staffs is not commensurate with the image of life insurance selling as a professional career.

b) There may well be a lack of adequate supervision and motivation of individual agents in many agencies. In one large company approximately 100 out of 580 agents who were designated as full-time agents by the company and agency produced nothing during a three-month period.

c) There is a tendency to emphasize direct "sales assistance," a repetitive task, rather than training and retraining. The supervisory staff in some agencies is at the beck and call of agents rather than operating on a planned supervisory program. (Parenthetically, second-line management positions in a majority of companies are part-time positions and are not controlled by the company.)

As a part of the AAA package there is a series of computer programs that summarizes and tabulates the results obtained. A functional time- and cost-analysis program makes it possible to determine the allocation of time spent by function within individual agencies and for the company in total. These results can then be translated into a cost-by-function showing. As of the end of 1965, eight companies had used the AAA, but significant industry norms have not been established. The program is still in the process of evolution, but Constance Twichell, of the LIAMA staff, had this to say at the Research Forum of the LIAMA annual meeting in Boston last fall:

Our research for field cost data which will be of value in making agency decisions . . . is leading to the collection of functional cost data based on time studies; . . . to the development of more meaningful measures of the value of business and of the value of the agency force, and finally, toward the concept of the agent as our primary cost as well as production unit—all in the framework of considering the effect of cost on production rather than production on cost.

2. *Computer-model life insurance agency.*—The LIAMA staff is in the process of developing and validating a mathematical computer model to simulate an insurance agency's operations under a variety of performance assumptions in order to (*a*) make intercompany comparisions of compensation contracts, (*b*) test compensation provisions, (*c*) train agency managers by using projections of agency performance, (*d*) project the cost of developing an agency, and (*e*) establish the range of results to be expected.

They admit that model-building is a slow trial-and-error process, but they are optimistic that through the use of their computer they can develop a mathematical model with a set of predictive equations that will drop out insignificant elements and retain the significant elements when applied universally, based on results and experience of individual companies. At the present time they have developed a model which fits certain applications but may develop inconsistencies when used for other determinations. The model will not be available until sufficient research is completed and "linkage" computer programs are developed to tie in existing programs and statistics.

3. *Manpower and production projections.*—LIAMA has developed, as an aid for long-range planning, another computer service designed to give realistic projections of net manpower gain and production yields from the existing field force and expected recruits over periods of from five to twenty years. The program will accept a variety of assumptions or objectives and produce a series of different projections.

4. *Success of financing plans.*—At the Research Distribution Cost Committee meeting on April 1 and 2, 1968, LIAMA presented a preliminary report of the results of one company's financing plan. It was indicated that there was significant variation of success with younger agents—those under age 25. They indicated also that it was important to break down your results by agent as well as by level of financing if you are going to study the results of a financing plan. They presented statistics on a case study of 216 recruits (1960–61) in the age group 25–39 (see Tables 1–3). They indicated that a company should recruit for retention, because it pays big dividends in the cost per unit of production and in persistency.

5. *Research in perspective.*—In 1967, in commemoration of its fifty years of service to the life insurance business, LIAMA published three paperback booklets on three basic areas of research. Each booklet sets out the

TABLE 1

Number of Agents Surviving Each Year

Contract Year	Group 1*	Group 2†
1	47	33
2	35	23
3	29	21
4	26	20
5	26	19
Per cent surviving 5 years	18%	27%

* Number of recruits: 146; initial monthly financing: less than $500.

† Number of recruits: 70; initial monthly financing: $500 and over.

TABLE 2

Aggregate Production

Contract Year	Group 1*	Group 2†
1	$23,866,000	$20,915,000
2	18,333,000	18,638,000
3	14,664,000	16,962,000
4	12,864,000	13,761,000
5	10,816,000	18,400,000
Total	$80,543,000	$88,676,000
Per recruit	556,050	1,266,800

* Number of recruits: 146; initial monthly financing: less than $500.

† Number of recruits: 70; initial monthly financing: $500 and over.

TABLE 3

Present Value of Aggregate Five-Year Costs and New-Business Volume

(Discounted at 5 Per Cent)

	Group 1*	Group 2†
Recruiting and selection	$ 116,800	$ 91,000
Manpower development	237,760	151,488
Net financing cost	251,971	209,803
Total development	$ 606,531	$ 452,291
Sales costs	414,725	334,115
Total costs	$ 1,021,256	$ 786,406
Present value of new business at 5 per cent	74,635,000	81,076,000
Cost per thousand	13.68	9.70

* Number of recruits: 146; initial monthly financing: less than $500.

† Number of recruits: 70; initial monthly financing: $500 and over.

problems that continue to confront the industry, describes the findings that have been observed, and draws some conclusions.

One booklet, entitled *Cost and Compensation in Life Insurance*, deals with the problem of evaluating agency costs. It reviews the methods and techniques used by LIAMA's predecessor organization in conducting a financial analysis of a general-agency operation. It develops a value of an agent based on agent survival, expected future production, value of the business, and average per capita costs of induction and maintenance, and then uses this "value of an agent" method to analyze the cost of a general agency operation and the cost of an agent's production. It then presents their new functional cost concept program and suggests measures of output, such as profit value of new business and capital value of an agency force.

A second booklet, entitled *Markets in Life Insurance*, deals with the various statistical data compiled by LIAMA over the years in order to (1) provide the agency officer with significant facts so that he will be more likely to make sound decisions than the less well informed and (2) examine life insurance in the framework of the total population and economy. Under the heading "Sales and Ownership Trends," type of policy, size of premium, size of policy, mode of payment, buyer sex, buyer age, and buyer income are discussed. The book continues with a discussion of the various factors which influence persistency of business, such as type and length of service of the agent, income of the premium-payer, mode of premium payment, type of policy, and agent's status.

The third booklet, entitled *Recruiting, Selection, Training, and Supervision in Life Insurance*, deals individually with each subtopic of the title of the booklet. In the section on recruiting are discussed the sources for agents, their attitudes, the public's attitude, sources of recruiting information, and establishing recruiting goals. Under the heading "Selection," aptitude tests, validation of test, rejection of position by the agent, composition of job, the interview, precontract training, precontract selection, and postselection are discussed. Reference is made to the recruiting and selection of management and supervisory personnel. In the section on training and supervision are discussed LIAMA's findings in reference to the agent's attitude toward training and supervision, the policyholders' attitudes and their implications for agent training and supervision, and the amount of training and supervision received. Various specific methods of training and supervision are evaluated and indexes of measurement are set out. The booklet also speaks of the merits of long-range planning as an aide to home-office supervision.

6. *Persistency of business.*—Since 1929 LIAMA has been concerned with

the persistency of business sold. They have compiled voluminous statistics in order to identify the reasons for good persistency or poor persistency and to develop means for predicting the persistency of business sold. LIAMA suggests that "one possible aid in improving persistency is a technique to identify policies at the time of sale which are likely to lapse. Such a predictive device, if sufficiently accurate, could serve to call attention of the agent and his manager to a case demanding extra effort in conservation, would act as a training influence on the agent, could be used in evaluating the agent's prospecting methods and market, and might even serve as an aid in underwriting decisions." The pursuit of persistent business through research in depth is in keeping with LIAMA's philosophy of promoting the welfare and interest of the life insurance policyowners while at the same time promoting a cost-conscious, efficient, and effective sales organization. This philosophy should be in harmony with the self-imposed, similar philosophy of the actuary.

MR. JOHN M. BRAGG: I would like to describe a project that we undertook at the Life Insurance Company of Georgia, which is a combination company. To study sales interviews, we asked a group of agents to complete a report on thirty successive interviews. From their questionnaires we punched cards and did a thorough analysis of 1,825 interviews. The over-all closing ratio was 33 per cent. Competition occurred on 6 per cent of the cases. These numbers varied widely, of course, by type of business. These results, incidentally, are in a paper entitled "Prices and Profits," presented to the Society at this meeting. The paper also contains a copy of our questionnaire.

One of the more interesting results is that agents do better on the first interview than on later ones. In addition, we found that the sales offices selected for helping in the survey wrote more business during the period of the survey than they had been writing. The reason was that each agent had to find thirty interviews. This was an interesting type of by-product.

MR. F. GILBERT SWANSON: At Aetna we wanted to develop a measure of the performance of our life agencies, giving recognition to the "capital value of an agent" as described by Mr. Pestal. We were looking for a "profitability index" that could become one of the factors in our managers' compensation formula.

The initial reaction of those who studied and examined the formula was extremely favorable; in fact, it was described as the best development in years. As time went on, we tested it by applying it to existing agency operations. In some instances results were not quite what had been expected, so to a certain extent enthusiasm waned.

The index includes a measure of the change of the capital value of an agency from the beginning of the year to the end of the year, based on business presently on the books and on each agent's potential future production and giving recognition to his age, length of service, and present production level. The subject was covered in a paper presented at the LIAMA Research Conference in May, 1966, by Julian Miller.

The index also reflects persistency of business as measured by the LIAMA thirteen-month formula, product mix, relative profitability of term insurance versus permanent insurance, and the relative profitability to stockholders of participating versus nonparticipating business. Expense rates are also considered. Measurement of brokerage production is a problem that has not yet been resolved.

MR. MENO T. LAKE: About a year and a half ago we approached agency profitability in much the same way that Mr. Swanson just described, considering the mix of business, persistency, actual expense, and so on. The only thing we did not recognize was the mortality in the individual agency. By comparing our results to company average figures, we were able to rank agencies as above average, average, and below average. We knew to what extent they differed from the average and for what reason.

We have had mixed reactions from our agency force for some very good reasons. They pointed out that one office might be producing an over-all mix of business that is average for the company but at the same time it might be doing a good deal of recruiting and training. Another office might have the same mix of business but not be doing nearly as much recruiting. Therefore, along with this we need a comparable way of evaluating the amount of training the agency is doing as well as other indexes that the agency department feels go into making a good agency.

Some of our results were surprising, in that some of the agencies that we had assumed were extremely good fell quite far down the list—for persistency, or mix of business, or expenses. Other agencies less highly regarded popped right up to the top. I agree that we must investigate the cost of recruiting and training an agent. The cost will probably scare us, but we should know.

MR. ERNEST J. MOORHEAD: It has been suggested that the compensation of a branch manager should be tied to the profitability of the business his agency produces. This, I think, is all right if the method reflects only those elements over which the manager himself has some control. The pricing of business by plan of insurance is the responsibility of the actuary, not the branch manager. The product mix, therefore, of an agency's business should not, I believe, be strongly emphasized in the compensation formula.

MR. CONNOLLY: Another point that has not been brought out so far is the question of the cost of the agent's conferences on a per capita basis. This is a substantial item.

I wonder to what extent actuaries get involved in setting up production requirements for a group for a conference. My impression of my company is that we periodically raise the requirements because we feel conferences are getting more expensive, but I do not know whether there is any rhyme or reason to the actual cost. We do not use volume any more but have moved toward premium income as the production requirement for attendance at a conference.

Due to the favorable investment picture today, we thus point up the need for attracting premium dollars rather than volume of insurance.

MR. BEASLEY: At the Equitable of Iowa we use essentially the same approach. We review the situation from time to time and upgrade the qualifications for attendance at conferences. For our top club, the President's Cabinet, we like to make the requirements demanding enough to keep it an exclusive club. Recently we noticed that its membership was growing to about twice what we thought the optimum number should be, so we have increased requirements. We have also changed from a premium requirement to a first-year-commission requirement.

MR. PESTAL: We, too, have just changed to a first-year-commission requirement. One of the reasons is that we do not want to see an agent being rewarded as a top producer yet having a small income. This production reward should be based on how much he is earning, which is the first-year commission.

MR. THOMAS COLE SUTTON: At Pacific Mutual Life we have also moved to commissions as a measure of conference qualification. In measuring profitability for our agency managers, we also use a per cent of commissions as the base, but we add to it some constant factors for each agency that reduces the automatic bias between small agencies, which are new in their production, and old established agencies. Of course, these constants are approximate, but they do help to remove the bias. They do not have as much significance as far as profitability to the company goes.

In our financing plan for agents we are able to distinguish relatively easily the amount of subsidy that an agent receives as opposed to income derived from his contract. With persistency assumptions for both agents and business we have developed an expected subsidy for agents. For the agent hired in a particular agency we can compare the actual subsidy with expected subsidy and let the manager participate in the profit and loss between the two items. This particular approach is brand new, so we have no results.