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PUBLIC ROLE OF THE ACTUARY

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1. Should the actuarial profession seek a more active and aggressive role in social questions facing our countries? If so, what lead should the Society be taking?
2. What about our so-called "actuarial principles"? Do they exist and can they be codified? Should they be?
3. How should the actuary react to the various publics he serves?
4. Will the actuary evolve towards a generalist who is a person who evaluates risks, whatever form they take?

MR. DAVID R. CARPENTER: Should the actuarial profession seek a more active and aggressive role in social questions facing our countries? If so, what lead should the Society be taking? Barry, how do you see the actuary's role involving social questions? Please be sure to define for us what you visualize "social questions" to be.

MR. CHARLES B. H. WATSON: All of us are citizens of the country in which we live. As citizens, we normally have certain obligations, certain types of roles to play in the examination of social questions. At the same time, however, as we are actuaries and as we do have a certain degree of expertise in applying statistical methods to the evaluation of future problems, this expertise is something that we should bring to bear on those questions. There are many questions confronting us in the world today which involve future problems, and where the application of statistics would be extremely valuable in evaluating the financial implications of those questions. If we do not use the ability and training we have in this area, then we are making a serious mistake.

I am impressed by the fact that social organizations, such as school boards, city boards and councils, seem to believe that they must have an accountant or an attorney as a member, so that they will have available the expertise needed to deal with their problems. I would like to see the day when they feel the need to have an actuary as well.

MR. CARPENTER: You seem to have a fairly broad view of the responsibility of the individual actuary in that sense. Jack, is your view similar?

MR. JOHN T. BIRKENSHAW: First, the term "actuary" should be defined. Referring back to Jack Bragg's definition: "An actuary is one who is expert in the design, financing and operation of insurance plans of all kinds, and of annuity and welfare plans."

Having said that; my position is, yes, it is the responsibility of the actuary to speak out on social problems. But in so saying, I am assuming that the question primarily relates to the financing problems associated with funding health, disability, life and pension benefits. An actuary has no more right than any

other citizen and no more obligation than any other citizen in the determination of social questions facing our country. This is not to imply these rights or obligations are nil, but the actuary should not assume a more powerful role than others reflecting different walks of life in this area. However, when the public or a governmental body has formulated various solutions on a social question, it is important that actuarial advice be provided where appropriate regarding the implications of the financial aspects of the proposals.

I believe that, too often in the past, particularly in Canada, answers to social questions have been handed down from governments saying this is what is going to be done, and the actuaries, after the fact, merely perform some statistical analysis to determine how the mathematics can best be handled. It is my feeling the actuarial advice should be given during the formulation of the social answers.

MR. RUSSELL J. MUELLER: Should the actuary be an active, responsible and concerned member of society regarding social issues? The natural response to that question is: Of course.

The more important question which concerns each of us here today is: At what point can the actuary, by virtue of his experience, assume a role which is larger than that of the ordinary citizen?

Now, it is extremely difficult to answer this question, but this is one which up until now has been addressed by actuaries principally through their own individual actions. For example, actuaries have been recognized as experts in the employee benefit area and therefore they have been appointed to various governmental advisory bodies including the Advisory Council on Social Security and the Advisory Council on Employee Welfare and Pension Benefit Plans.

In many of these assignments, the actuary's role has extended beyond those matters which might be considered purely of a technical or actuarial nature. In fact, this larger role may be most appropriate since the experience acquired by actuaries usually extends well beyond that which is merely technical in nature. Regardless of how wide-ranging the social issue, the actuary must be guided by sound personal judgement in defining the extent of the role to be assumed in a given situation.

The high level of personal freedom exercised by the actuary in choosing issues, and the degree of participation in those issues, is not without both rewards and risks. Besides the personal recognition which accrues to the individual, the actuarial profession as a whole also benefits from such individual participation and also from the appointment of actuaries to important advisory bodies.

On the other hand, the actuarial profession may also be the unwilling beneficiary of criticism arising from controversial public stands ascribed to by individual actuaries. An example may serve to illustrate this latter type of risk. During the course of national debate over private pension reform, individual actuaries (acting totally within their rights) publicly stated their opposition to federally-mandated vesting and funding standards for private pension plans. The result was that actuaries were singled out by a legislator, who criticized them for hindering the progress of legislation leading to needed pension reform at the national level.

While it is certainly unfair to saddle the entire actuarial profession with statements made by some of its members, this illustration does point up a need for each actuary to exercise extreme caution when giving an opinion, to make

clear to the particular audience being addressed whether the opinion is of an actuarial nature or of a non-actuarial nature, including the actuary's own personal opinion.

The guides to professional conduct are not too explicit on this matter. They state that the actuary must "act in a manner to uphold the dignity of the actuarial profession." These guidelines are most reasonable and should not discourage the willingness of actuaries to comment publicly on social issues. Actuaries, as concerned citizens, should be encouraged to bring their unique experience and expertise to bear on the social questions facing our countries.

For example, actuaries can render an important public service by turning their attention to the present benefit structure and financing problems of federal programs including Social Security, the Railroad Retirement System, and the Civil Service Retirement System.

MR. CARPENTER: Let us turn our attention to what is actually taking place at this time both on the part of individual actuaries and also at the Society level. Article X of our Constitution, which allows for public expression of professional opinion, may appear to be psychologically depressive of public opinion. One thing is certain, it allows for opinions on matters only within the special professional competence of actuaries. Article X calls for strict controls on the part of the Board of Governors. In addition, to express an opinion of the Society itself, a two-thirds affirmative vote of those voting in a mail ballot on the subject must be obtained - and this assumes that a majority of the membership voted on that particular matter. In addition, substantial contrary opinions must be specifically noted. In order for the Board of Governors itself to express an opinion, it must have the affirmative vote of two-thirds of its members. It must state specifically that it is a Board opinion and not an opinion of the Society at large and, once again, the Board must note any substantial contrary opinions. Society committees wishing to express an opinion must follow guidelines virtually the same as for the Board of Governors itself but, in addition, the particular committee must have authorization from the Board in order to express any such opinion.

MR. WATSON: It is clear that the language of Article X makes it difficult for the Society itself to express an opinion. This was done deliberately. When Article X was adopted, there was a substantial body of opinion that it would be a mistake to give to the Society the right to express an opinion as a Society. Those persons who opposed Article X feared that this right to express an opinion would be used to do such things as oppose vesting requirements in pension plans or oppose expansion of the Social Security System. Those who opposed it were afraid that the opinions expressed by the Society would be more conservative than those of the individual members of the Society.

It is actually rather easy for a Committee to express an opinion. Every time a Committee is authorized to release its report to the public at large, that report is, in effect, an opinion of that Committee. For example, the Munson Committee expressed an opinion when it released its report on dividends.

MR. CARPENTER: Jack, I believe you have referred to the position that the Society finds itself in as being somewhat like the problem of the chicken and the egg. Would you expand upon that for us?

MR. BIRKENSHAW: We are gradually coming of age as a profession and getting closer to the position of determining exactly where our area of competence and expertise lies. At the same time, it is important for individual members

to express their opinions and gradually gain status in the Society and with governmental bodies in particular so that we eventually come to the position that the Society and the Canadian Institute of Actuaries will be asked more than they are at the present time to express an opinion. Though it might be difficult to get a consensus from the Society or from the CIA in the expression of an opinion, I believe this will come in time. We are in the situation of the chicken and the egg in that we have not reached that stature as yet but are in a position where individual members have an obligation to speak out.

MR. CARPENTER: It seems to be a question of emphasis. Yesterday, Mr. McNamara made the comment that the government is already turning to us more each day for advice and data. Should the Society take more initiative in this regard?

MR. WATSON: In one sense, it is a misnomer when we say that the Society or one of its Committees expresses an "opinion." If we are looking at the Society or any of its Committees operating as a professional body, what we would want them to express is not an "opinion" but rather a reasoned conclusion that has been derived from an evaluation of facts through the application of our actuarial expertise. In other words, it would be entirely proper for the Society or one of its Committees to render a statement on, say, the financing of the Social Security System - for example, the possible implications of a continuation of the present level of financing and the present method of financing. That is not exactly an opinion as I see it. It is an effort to examine the facts, to apply our expertise and to state what we view as being the most likely result in the future of the continuation of a certain line of action. It is in this area that it would be proper for the Society or any of its committees to render an "opinion."

The situation with regard to individual actuaries is somewhat different in that an individual actuary may go beyond that and render an opinion that is truly a personal opinion. Each of us as a citizen has a right and an obligation to use our particular training and talent to explore and comment upon social questions. The actuary has a certain kind of talent and a certain type of outlook. We have a responsibility to use those talents and outlooks in exploring social questions.

MR. CARPENTER: Individual actuaries are beginning to take a more active stand with regard to what we might call social questions. In fact, after reading one actuary's discussion on a fairly technical problem within the industry itself, it dawned on me that a problem may exist here that I had not thought of before. In this particular case, it was my own professional opinion that the author's comments lacked actuarial credibility. We could be running the risk of arguing in public. We may also have a problem of the need for some form of policing of irresponsible or inaccurate statements made by a member of our profession which might be taken as gospel outside the profession.

MR. MUELLER: The most important risk involved in the expression of an individual opinion, whether the issues are social or otherwise, is that this opinion may be imputed to the Society or the profession as a whole.

As to whether or not the Society of Actuaries should render opinions, or seek a more active role regarding social questions, let me state my conclusion first. Generally, societies should not render opinions on social questions. However, I feel that the Society of Actuaries should be more active in research efforts which might be brought to bear on certain social questions. In accordance with Article X, these research efforts should be limited to matters within the special professional competence of actuaries as stated therein. Even within

the expressed limitations, there may be considerable difficulty in defining what "research" and what "actuarial matters" mean. However, I am optimistic that total agreement can be reached as to the meaning of these terms. Let me now discuss briefly the considerations which led me to this particular conclusion.

No matter what the level of Society involvement in a particular activity, there are risks involved. There are even risks to the Society and to the profession when the Society chooses to remain silent and do absolutely nothing. In the first instance, and to the detriment of the profession, opinions voiced by individuals may be considered by others to be the opinions of the organization or profession. Secondly, a head-in-the-sand approach to a public controversy may lead to what might be called the actuarial credibility gap. The contrasting newspaper headlines about Social Security is one example. A few years ago the headlines read: "Social Security declares actuarial dividend." Today, we see splashed across the headlines, "Social Security, close to bankruptcy." Well, which is it? Thirdly, silence or an unwillingness to service requests may be inconsistent with the expectation of various publics. One further point is that inaction may permit defective public policies and programs to be adopted.

There are risks if we do as well as if we do not. When the spotlight is turned on, heat will be generated. It may well be that even a narrowly defined research effort may lead to divisions or factionalism among the membership. New efforts are seldom universally popular when they translate into new responsibility, usually meaning time and expense. Potentially, such activities may impinge on individual freedom to varying degrees. All of these risks may be characterized as internal to the organization.

A number of external risks also exist. There is the possibility that one or more interested parties may misunderstand the results of the research or opinion released by the Society. Once released, the results could be misused or recast by other parties to serve their own purposes. There is the risk of adverse criticism. In addition, the effort may be self-defeating if it proves to be untimely or is ignored.

After an assessment of the risks, the members of the Society will have to decide what criteria should trigger action and at what level. The degree of impact and importance should be considered; whether to the actuarial profession, to a sub-population group, or the population as a whole. Another consideration is what the potential effectiveness of a particular activity or action might be. Many issues require timely action. The question as to whether there are adequate resources available in order to do the right kind of job must be answered.

Can adequate controls be developed to reduce these risks? This will depend on the particular situation, as will the existence and extent of any of the risks previously mentioned.

At what levels might the Society seek to give an opinion? First, the Society, through opinions or otherwise, might make recommendations favoring or disapproving of a particular policy or proposal. Second, we might look at the analysis of probable effects of a particular proposal. There may be substantial problems which could lead the Society down the wrong path even at this level. At the third level, the Society might make suggestions as to the methodology to be employed in the analysis of a particular proposal. Even at this level there are substantial risks. At the last level, the Society might serve as a source of data and other technical advice defined in a rather narrow sense. For example, when Congress was looking at the cost of vesting, the

Society could have, if the mechanism had been available, provided actuarial assumptions and experience studies that might have been brought to bear directly on these issues and gained some credit for it with little risk of detriment.

The Society should establish and expand on the concept of a research foundation or similar vehicle that would perform, in an unbiased and professional manner, basic research which could be brought to bear on various actuarial matters including those related to social issues. I do not believe the Society should go further by using the basic research to support opinions which may become directly or indirectly aligned with any other body, whether private or governmental. We certainly could go as far as to present the current status of a system.

MS. ANNA M. RAPPAPORT: Actuaries are involved in public and social questions on a continuous basis whether they recognize that fact or not. Many of the "scientific" questions facing actuaries are closely tied to public policy issues. Failure to deal with the public policy side of the issue provides implicit endorsement of whatever is going on.

The tie between social and scientific questions facing actuaries is likely to increase in the future. Areas of particular activity are likely to be health and health care financing, and provision of retirement benefits.

MR. WATSON: It is all very well to say that we can, for example, examine the question of funding of pension plans and consider the likely future implications of following a particular approach to funding. But just because we can do that and conclude that, if the client continues to use a terminal funding basis, it is extremely likely that his pension system will be in deficit by five billion dollars after ten years, this does not mean that you can then conclude that a particular course of action should be taken. What actuaries can do is call to the attention of the public, the regulators and the legislators, what will be the likely implications of certain courses of action. It is only then, after the various alternatives have been considered, that a decision should be made by the appropriate party.

Our opinions have to do with the consequences of facts, not the virtues of particular courses of action.

MR. JOHN W. PADDON: How can the Society of Actuaries, as a binational organization, most effectively speak out on the different social questions which are of separate concern to the U.S. and Canada?

MR. BIRKENSHAW: This is part of the problem of the actuarial profession coming to maturity. It has always been a debate ever since the CIA and the American Academy were formed as to who should be speaking out on which topic.

I do not believe that the binational nature of the Society has been an impediment in this regard because we have been trying to speak out on subjects involving actuarial principles and professional opinions within those principles. As time goes on, you will find that the CIA will be speaking on the national questions referring to Canada and the Academy will be addressing national questions in the United States.

MR. CARPENTER: What about our so-called actuarial principles? Do they exist and can they be codified? Should they be?

Reading Mary Adams comments in the March, 1975 issue of the Academy Newsletter, I feel that Mary is saying the Guides to Professional Conduct and the Opinions on Professional Conduct (which are similar for the Society and the Academy) are our attempt to codify our standards or principles.

Mary goes on to say that such codification is essential. A reading of our Guides would certainly seem to indicate that such actuarial principles do exist. For instance, at the beginning of the Guides it is said that "these Guides deal with precepts and principles only." As we read through the Opinions, we find reference to the fact that methods employed should be consistent "with the sound principles established by precedence or common usage within the profession."

This would seem to indicate that principles certainly do exist. However, it somehow seems to imply that they are not, or cannot be, codified. I would like to point out that in John Angle's comments published in the January, 1975 issue of The Actuary, John says, "Attempts to put actuarial practice in a mold will be as doomed to failure as are business plans which take no note of changing times and consumer wants."

Also, in my opinion, we have to acknowledge the fact that the Academy's work regarding actuarial principles as they apply to generally accepted accounting principles would appear to represent codification of principles.

MR. BIRKENSHAW: Insofar as actuarial principles are concerned, there are many principles for the members of the Society to follow. To the best of my knowledge these have not been codified, but, in the broadest terms, can be determined from the admission requirements and examination material. There are a few basic principles which must be adhered to at all times and should be codified but not so as to prohibit some degree of latitude in the expression of professional opinion. Within this codification, we must define our actuarial sphere of competence and not go too far beyond this and try to cut too wide a swath for ourselves. In addition, the actuarial profession, in order to perform as a profession, must impose upon its members the necessity of complete integrity and should provide full disclosure at all times.

MR. WATSON: It seems to me that principles can mean either ethics or the theory which lies behind what it is we are doing. If you mean the underlying theory of our profession, you can pick up Jordan or one of the other textbooks on actuarial science and there are the principles. I think that what we are really talking about are practices, the ways in which those principles are applied. I would view the work of the Farley Committee on life insurance reporting and the Swick Committee on pension plans as being related to the codification of practices.

I believe that it is extremely important that these practices be set down and I fully support the efforts of these Committees to distinguish between good and bad practices.

There have been some recent cases in the United Kingdom where life insurance companies have gone bankrupt and, although such occurrences are perhaps not uncommon in this country, they came as a genuine shock in the United Kingdom. An editorial which recently appeared in The Economist said, "The absence of an actuarial code of practice is one important reason why these companies boomed and bust." That editorial was maintaining that the actuarial profession in the U.K. had made no effort to lay down what was appropriate for actuaries to do in certain circumstances, and that it should have. I agree and, for this

reason, I support the efforts that are being made to define these practices.

MR. MUELLER: I agree that what we are really talking about is codifying practices. The Society and the Academy or whatever organization we might be discussing have been perhaps a little bit slow in getting started in this area. We have already seen some of the fallout of this no-action risk that I delineated before and that is the standards under ERISA.

However, before the Society or other actuarial organizations go overboard in reaction to this sort of thing, I think we have to stop momentarily and take an accounting. We have to assess the additional risks that are there for establishing additional standards, especially the Swick Committee standards, in light of the fact that there is now federal law that applies to actuaries and their conduct. One area is, if the Society or the Academy is to "create new law" how does the new law impact on continuing effects of past practice which would now be unacceptable? Secondly, is this new law now written, or can it be written, so as not to conflict with existing regulations or future regulations? The possibility that this new law might serve as a basis for public criticism that it does not go far enough should be assessed. The new law should go as far as the problems go, those that we know about and can reasonably anticipate. For that reason, I certainly align myself with the recommendations of the Swick Committee to require actuaries to recognize inflation in an explicit manner.

MR. ROBIN B. LECKIE: It is essential for the profession to codify a number of its practices. It is necessary for the profession to use a reasonably common terminology. This is not just for the benefit of the members of the profession. It is also for the benefit of the public who have a right to know what we are doing when we, for example, sign an actuarial certificate. What have we incorporated in the way of judgement and the various processes we have gone through? What has been involved in preparing that actuarial certificate? I think the public has a right to know. We do not have to go into the kind of detailed codification that the accounting profession has through their handbook, but we are certainly going to have to go a good long way.

MR. CARPENTER: How should the actuary react to the various publics he serves? I believe it is fair to say that reference to our Guides is supposed to help us somewhat in this dilemma. However, assuming that we are here to break new ground today, I'd like to turn the discussion over to Barry since he expressed his views so eloquently in his letter to The Actuary, published in the June, 1975 issue.

MR. WATSON: I certainly will spare you all a repetition of what I wrote in that letter. However, it still seems to me that any definition of the actuary's responsibility depends very much on what role you place the actuary in at a particular time.

If you think of the actuary as a citizen of a society, then he certainly has a responsibility towards the society in which he finds himself, a responsibility to obey the laws and to be a decent, moral, law-abiding citizen. On the other hand, the actuary does, as a member of a profession, have an obligation to his profession, to follow the code of conduct of that profession. Moreover, as a professional, the actuary is serving a client. It may be his employer or it may be a client as defined in the more traditional sense. It seems to me that he has a particular obligation to serve that client and to answer to the best of his ability the question (considering the specific situation) that the client presents to him. Finally, as an individual human being, the actuary also has a responsibility to himself.

There can be a conflict between an actuary's responsibility to the particular client he is serving and the more general responsibilities that he has to society at large and to his profession. Here is where the problem lies. It can be very difficult at times to sort out your obligations within that area. For example, what happens if you are asked to give an answer to a question, when the particular answer you give may well serve the interests of the client but on the other hand may not necessarily be in the interest of some other segments of society? Does the actuary, as an actuary, have his greatest responsibility to the insurance company that employs him or to the policyholders of that insurance company?

Or, as a consulting actuary in the pension field, does our obligation run to the employer who has hired us or does it run to the persons who are covered under that pension plan? ERISA has tried to define this by saying that there is some actuary who is designated to serve the interests of the persons covered under that plan. However, ERISA may have actually confused the issue more than clarified it, because presumably some actuary is serving the employer.

These are all areas in which we have to be careful. We must carefully consider where our responsibilities lie. We certainly cannot ignore the general public but we must also remember that, as professionals, we are called upon to serve the interests of our client.

MR. CARPENTER: Russ, I believe I am quoting you fairly in saying, "The situation can be likened to a juggler riding a unicycle down the streets of Washington, D. C. at rush hour in an attempt to deliver hot pizzas to several different hungry publics." Would you please expand upon this for us?

MR. MUELLER: On several occasions, at least in the past, we have been accused of delivering cold pizzas. In fact, more recently, we have been found not to deliver the pizza at all. It is difficult to juggle all the different roles that we have. We have to be careful to know when to speak as an actuary or as an individual. ERISA did speak to particular conflicts that were uncovered and well-known in the pension field and now federal law proscribes the actuary from engaging in certain practices. In order to better balance these roles, I think we do need the Society and the various actuarial organizations to assist the actuary in his difficult job, through guides to professional conduct and through this codification of principles and practices. This gives the actuary a base to work from.

MR. CARPENTER: Jack, you have said that you are "not too sure that our reaction should be very different regarding the various publics which we serve." That remark would seem to hint at a slightly different slant on this topic. Would you please expand?

MR. BIRKENSHAW: As a professional, I feel that you have to react to your publics or to your employers in very much the same manner all of the time. One of the reasons we get in trouble is by feeling we are serving significantly different masters. I do not believe that you can afford to make significant distinctions. There is no question that there are certain principles involved in the actuarial profession. It is how we employ those principles in various situations that makes us professionals. An example that keeps cropping up is the fact that a life insurance actuary is really working for his employer, the life insurance company. I feel he has as much leeway as a consultant. You have to be consistent. You have to provide full disclosure. The lack of full disclosure can cause problems. If actuarial principles and practices are followed and disclosed in any particular case, I cannot see how you can treat your various publics differently.

MR. RONALD M. WALKER: In consulting practice you do run into situations where your answers to the public may be different. I am frequently called on to provide "expert evidence" in fatal accident and disability cases.

The whole legal system is built upon the adversary system. It is important to make the best case I can for my client and leave it to the opposition either to knock it down or to make a better case of his point. My advice to my client will be quite different on the questions that he should ask and the order in which he should ask them if he is the plaintiff instead of the defendant.

MR. CARPENTER: Will the actuary evolve towards a generalist who is a person who evaluates risk, whatever form it may take? Whenever I hear a question such as this, I am always reminded of the actuarial situation as it is in England, that being the actuary seems to be more of a generalist there, especially with reference to the asset side of the balance sheet.

By the way, I would like to refer you to what I believe to be an excellent newspaper article written by Margaret Drummond in the Times, issue of May 7, 1975. In fact, the article does a pretty good job of tying our third topic into the fourth, for in the article it stated that in England "There is a tacit assumption that every Fellow of the Institute holds himself responsible to the policyholder before the company." One of the conclusions reached in the article is that there is expected to be in England "a restatement of the division of responsibilities between the actuary and the company he serves, placing more of an onus on the former to explain to the latter the effects of investment policies."

It has been my personal opinion for the past few years that actuaries here in the United States will find themselves paying more attention to the asset side of the ledger during the next decade. I have heard it said that no company in the U. S. has ever become insolvent because of the understatement of liabilities. Traditionally, insolvency has been caused by mismanagement of the assets.

MR. MUELLER: In that same article there is a statement that part of the blame for the problems of the life insurance industry must be laid at the actuarial door. I do not see any particular trend of the actuary evolving towards a generalist. I have always felt that "actuary" ought to be defined as "risk evaluator." When actuaries do get into other areas of risk evaluation, they tend to lose their actuarial identification, whether they may go into operations research or computer science or even demography. I do not think the actuary will become more of a generalist unless the Society syllabus is responsive to either desires or needs in that regard.

MR. WATSON: Will the actuary evolve towards being a general risk evaluator? My single best estimate would be probably no; but if you ask me should the actuary evolve towards being a general risk evaluator, my answer most certainly is yes. The actuary has a sound, generalized education in the evaluation of risk, in the application of the statistics of past events to predict future events. This is a very useful ability to have and I think that it has wider applications than we now see in our profession. One problem is that we are so late in the game that other people have been staking out the turf. Actuaries were the first people to engage in what is now loosely termed operations research, but we just ignored that game. Now, when an actuary enters that field, he tends to be called an operations research person rather than an actuary. We do have the training, the talent and the ability to

expand our scope. Whether we will or not is uncertain. But if we do not expand our view of what we can do, we are in grave danger of being "experted" out of existence as a profession. We will be treated as narrow, expert technicians, and all the important areas where we can make a contribution will be taken over by other people.

MR. BIRKENSHAW: I do not think that the actuaries will become generalists. Some might use their talents in the areas of probability and statistics to become expert in other areas of risk. By and large, however, actuaries will stay in the same areas of expertise as in the past. Most actuaries are regarded as general practitioners, but there are many specialty areas currently which encompass a rather broad spectrum.

Insofar as the actuary becoming more concerned with the asset side of the ledger in insurance circles, I believe actuaries will move in this direction, not because they necessarily will become very proficient as risk takers in the area of investments, but because competition is forcing life insurance companies to model their products to more closely reflect current investment performance. As a result, the actuaries as corporate managers or consultants to insurance companies must pay more attention to the asset side of the ledger and the character of the assets therein.

MRS. ANNA MARIA RAPPAPORT: I am in favor of the actuary evolving into more of a generalist. I feel that this is necessary because actuaries must be prepared to deal with the business problems of the enterprise employing them. Insurance company actuaries are going to be faced with a greater variety of problems because the companies must deal with the ever more complex world and because many insurance companies are entering related businesses. Furthermore, questions of economics and investment returns cannot be ignored in choosing assumptions.

