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ACTUARIAL OPPORTUNITIES FOR THE 1980's AND 1990's

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The business environment in which actuaries traditionally have worked is changing dramatically. What will that environment be like in ten years? What can we do to prepare as individuals and at an organizational level? Questions to be addressed by the panel include:

1. Will traditional opportunities be reduced?
2. What nontraditional opportunities are available?
3. What changes are needed in our educational process?
4. How do we make nontraditional employers aware of actuarial skills and their value?
5. What will actuarial work be like?

MS. DAPHNE D. BARTLETT: We will start our discussion with two basic premises:

- (1) We will, at some point, have too many actuaries to provide work at the current level of interest in the traditional areas. This may result from forces other than producing too many actuaries. For example, our traditional employers may become more efficient, or there may be a reduction in the number of insurers.
- (2) Actuaries are bright and well-educated people, whose skills (actuarial and other) can be used productively in nontraditional areas.

Our objectives in this session are as follows:

To explore the truth of these two premises and, assuming that they are true for at least some of us, explore what can be done to identify and cultivate opportunities in nontraditional areas.

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Will it be harder for an actuary to find traditional employment in the future?

MS. LINDA B. EMORY: I will answer this question, indirectly, by giving everyone a few facts about the trend of Society membership and compare this to a survey of demand that The Committee to Encourage Interest in the Actuarial Profession did in 1973. I will also rely on a study that Linden Cole recently did on projecting the number of members in the Society in the future. Finally, I want to mention that the Committee on Career Encouragement has a Subcommittee on Actuarial Opportunities that will be doing a new survey on these demands in the near future.

I will begin with the first survey. Back in 1973, the survey of demand indicated that we would need 6,000 actuaries (members of the Society) in 1978. We actually had 6,500. It also predicted that we would need 7,000 in 1983 and we already had 8,400 by the end of 1981. Thus, Society membership more than doubled between 1971 and 1981, growing from about 4,000 to 8,400.

Of course, when the committee conducted this survey in 1973, no one had anticipated ERISA, which changed the requirements for actuaries considerably.

Linden's survey reveals some very interesting statistics about the trend of future membership. First of all, the number of people writing Part I increased quite rapidly between 1970 and 1976 from 1,000 to 1,650. However, not many realize that this number has actually decreased since then. In 1981, the number fell to about 1,225.

Also, there have been two marked periods of significant increases in the number of new Associates. In 1978 there were 449 new Associates. In 1979 the number jumped to 750 and there were 700 again in 1980. Since then, the number decreased to the 400 level. We think the sudden influx was because of the changes in the syllabus.

From this information, Linden has projected a smaller growth in the membership of the Society. He does not expect that the Society will increase by more than around 50% in the next 10 years, rather than doubling as it did before. In fact, the growth may be much lower.

MS. BARTLETT: Thank you, Linda. Mike, what do you think about the demand for actuaries?

MR. MICHAEL J. COREY: The first thing we have to address is the traditional actuarial role versus the nontraditional actuarial role. My unequivocal answer to whether it will be harder to find positions at the traditional level ten years from now is yes. But the number of nontraditional roles for actuaries will increase also. So, it is hard to say whether or not there will be a balance. There probably will be a slight dip in demand, driving actuaries into other roles within the life insurance industry.

We, as consultants to the life insurance industry, anticipate that the merger-acquisition activity in the next decade will be substantial. In fact, we anticipate that there may be as many as four to five hundred fewer companies than there are today. This will have a tremendous impact on the traditional actuarial role. There will be fewer traditional positions, especially those technical positions which have been commonplace during the last two decades. On the other hand, we are seeing a terrific turnaround in the demand for more creative actuaries. For example, the product actuary is as much in demand today as the ERISA actuary was five or seven years ago.

The actuarial field will dramatically expand into new areas. Companies are looking at the "bottom line" in a much different fashion today. In the next 10 years, the actuary will be in more "bottom line" positions that entail: the marketing of products, the development of new delivery systems, closer involvement in the finance area, closer involvement in the data processing area, and further expansion into management. I believe the actuary is the only individual who is trained to be a professional in the field. In the next ten years, the industry will demand the people who can maximize profit, and the individuals to meet those demands will be in the actuarial profession.

MS. BARTLETT: Thank you Mike. Before we continue, we need to define "traditional" and "nontraditional". Traditional employment, for purposes of today's discussion, is employment in the areas of life and health insurance and employee benefit plans. Nontraditional employment means employment in industries other than these, but performing actuarial tasks - pricing, earnings projections and the like.

This leads us to our next question: Does the idea of nontraditional employment make any sense at all?

MS. EMORY: It hasn't made a lot of sense based on my committee's work in the past. There was a survey done in 1980 by Gilbert Fitzhugh, then Chairman of the Subcommittee on Actuarial Opportunities. It addressed the question of nontraditional actuarial employment. For the survey, they obtained, from the 1980 Yearbook, all those listed not obviously employed by traditional employers. The number they came up with was 144, which are not many people. Perhaps, if the Subcommittee had been able to locate all people who have discontinued their membership in the Society, the number in nontraditional roles may have been greater.

There were 89 replies to the survey, and only 27 actually had jobs which might be really considered nontraditional. The remainder were actually people doing traditional things - like being responsible for employee benefits - for these nontraditional employers.

Eleven people had made drastic career changes. They tried being actuaries and they did not like it or found something they liked better. Included here are such things as a family physician, a

member of the clergy and a farmer. Sixteen people were actually performing nontraditional actuarial jobs in nontraditional places in government, investments and finance, and business planning.

If the Society could survey the fifty or so Fellows and Associates who do not renew their membership each year, we might find other nontraditional roles which actuaries are fulfilling.

MR. COREY: I feel the answer to this question is unequivocally yes. The major reason why nontraditional employers do not hire actuaries in larger numbers is because they do not know who they are! The automatic partnership between actuaries and the insurance industry has to stop. This should start at the academic level and be carried through the actuarial exams. The actuarial college curricula must become much more well-rounded to include courses similar to those provided in advance degree programs given by the better business schools.

MS. BARTLETT: Can you think of any examples of nontraditional employment which involve actuarial skills?

MR. COREY: Why is it that the only actuaries in Washington are working in insurance programs, Social Security, or the Internal Revenue Service? Why do we find only one actuary in each of these governmental agencies: Defense, HUD, Treasury, World Bank? Nontraditional employers would be in the fields of finance, corporate planning/forecasting, aerospace, energy, data processing, government and operations research. Also general management consulting and strategic planning would be areas to consider.

MS. BARTLETT: I wonder if any of the airlines which have instituted these mileage accumulation programs have even considered the antiselection involved, or the need for reserves for the liabilities they are accumulating? What about applying to other financial institutions all of the knowledge we have built up recently about matching of assets and liabilities? It seems to me that actuaries could be very useful in any area where an investment is made today for a risky return tomorrow. For example, does a department store build in a particular shopping mall, or does a hospital purchase a particular piece of expensive equipment? The possibilities are endless. But, would a nontraditional employer hire an actuary today? Mike, what do non actuarial recruiters think of us?

MR. COREY: They see the actuary as a highly specialized insurance technician, well paid, in demand in his own industry, hard to recruit because of supply and demand. Actuaries are as hard to recruit as Harvard Business School types. They do not understand your skills and what you have to offer.

MS. BARTLETT: How might an actuary's resume be written to appeal to a nontraditional employer?

MR. COREY: You should deemphasize your specific industry training and emphasize the nature of your work. For example, you

would say you have "developed specific products for market penetration" rather than "developed group insurance products for a market segment of customers age 60 and over". A resume should indicate experience as more functional than specific, and emphasize skills over duties.

MS. BARTLETT: I tried to write a resume like that once. It is surprising how impressive it looks! Mike, who are our primary competitors for nontraditional employment, and how are we different?

MR. COREY: In Aerospace, you are competing with Ph.D's in Math; in Operations Research, the competitors are MBA's, Math Ph.D's and engineers; in Computer Technology, MBA's and advance degree mathematicians. In Finance, it is primarily MBA's.

Actuaries are less broad in overall business training but stronger technically in specific areas than an MBA. Actuaries are much better prepared for business than a mathematician as well as an engineer because of their exam and curriculum demands. This difference is significant. Actuaries are the only ones there are, other than MBA's, from a strong business-oriented program.

MS. EMORY: Today it is easier for an actuary to get a traditional job. However, assuming that times will change, the best tools of the actuaries for nontraditional employment are: their knowledge of computer systems; compound interest; projection of earnings and cash flows; alternative scenarios; and their ability to evaluate the reasons for financial results.

These skills are applicable to some extent in any business, whether financial, manufacturing, retailing or service-oriented.

My husband runs a manufacturing plant. It has been my observation that an actuary could do a very good job of evaluating its financial performance - inventories are just like reserves. The actuary could do a good job of analyzing changes in inventories and projecting what they mean.

MS. BARTLETT: What can be done in the E&E or continuing education process to enhance the possibility of nontraditional employment?

MR. COREY: I believe that the Society's educational process should provide broader exposure to non-insurance issues, mainly corporate strategic planning, financial planning, operations research, corporate vs. insurance law, management techniques and marketing. I also would recommend that a member from outside of the actuarial profession be added to the E&E Committee, specifically someone from an advanced business school such as Harvard, to provide a broader exposure to those issues outside of the insurance industry.

MS. EMORY: The recent changes in the syllabus were designed to give a more general and fundamental basic syllabus, and to create

the ability to add specialty examinations rapidly as new avenues open. Perhaps the basic syllabus could give examples of applications of techniques to other than insurance situations. Perhaps we should consider a "general" route in addition to the insurance and employee benefit routes for the later examinations.

MS. BARTLETT: If the Society offered it, many of us might have considered a third route to Fellowship such as general business. Is there a way that the Society could assist those of us who are interested in nontraditional opportunities by having more discussions of general subjects in meetings such as this? I think it would be very helpful. For instance, I would like to see a meeting where we could discuss the different theories of management. I do not want to know all the details but something like this would be extremely helpful to me.

MR. GORDON CHALLES: We have been talking about adding subjects to the exam syllabus; however, we can learn many of those subjects in the business schools. I have a commerce degree which helped me enter the actuarial field and it better prepared me for my work. Thus, maybe we should allow the schools to teach these subjects instead of adding them to the exams.

MR. PAUL GEWIRTZ: There will be a never-ending need for the type of actuary who is characterized as a businessman first, a consultant to management second, and an actuary third. I put it in that priority because we see business having a need for us, strictly in that priority. Where does this lead us? The educational effort involved in our becoming a Fellow is woefully deficient in some areas when we step out of the insurance companies and become consultants to management. Take such issues as pension accounting. For dealing with the Financial Accounting Standards Board, the only accounting the actuary receives is life insurance accounting. It is extremely difficult to try to apply these limited accounting concepts of GAAP to pension accounting in order to communicate successfully on any level with a fully trained accountant. One is forced to learn general accounting concepts on one's own. The "debits and credits" we learn in life insurance accounting are insufficient.

One often deals with management in advanced topics such as accounting for post-retirement welfare benefits. If the day ever comes when companies have to account for those benefits, there is a question that is going to come from our clients. If we have to account for these benefits, should we fund for them in cash since there are no ERISA minimum requirements?

Also, we are going to have to deal with the MBA-type issues that we are not thoroughly trained in right now. Examples include: (1) the alternative uses of capital, all competing for the same needs; and (2) the decision to fund a plan that is not legally required to be funded and tax implications on that. These are some things in which the MBA program, in some areas, tends to educate the student. Our profession leaves us to learn these on our own.

Should we leave this to the schools and hope that the actuary progresses through the right schools in becoming a Fellow? Remember that most of us did not do that. Many of us entered the field as math majors. Our formal education was lacking in these business areas and, in many cases, it is too late to go back for an MBA.

Because of this, there needs to be a widening of the syllabus, some self-study programs, and some sessions at meetings like this, to allow people the chance to continue their self-education.

MS. BARTLETT: Thank you very much.

The next question, on which I will comment, is: What can be done to improve the awareness of the skills and availability of actuaries by nontraditional employers?

The answer, to a large degree, is better public relations. Those of us at yesterday's General Session know why I do not like "insurance mathematician" as the definition of an actuary. The moment we call ourselves insurance mathematicians, we have limited our role to insurance, and our scope to the technical.

One suggestion to improve nontraditional awareness is to start talking to other potential employers. We have already started to arrange for an actuary to talk to the Association of Executive Recruiters about actuaries, their training, and their skills. In order to get some promotion going and to expand interest, the Public Relations Committee can start sending out articles to various trade magazines about skills of actuaries.

Please remember, however, the Society cannot take care of this problem completely on its own. Each of us, as individuals, are members of the Society. We must all try to get involved, in whatever way we see necessary, to broaden our scope and our definition. For example, the moment the aerospace industry discovers they have a pool of bright people out there, perhaps they will start using us and calling on our services.

MR. COREY: I want to emphasize that this all has to start at the college level. The Society needs to work with the various programs to introduce individuals to the actuarial profession, not the insurance profession. The programs need to be broadened so that it is not an insurance program but an actuarial program. The actuary will not be able to cross industry lines until the college programs begin to think of other industries and provide other disciplines where the actuary can use his skills.

I still find it amusing when I talk to senior-level executives who indicate that they are pleasantly surprised that an actuary on their staff has management skills. Why shouldn't an actuary have management skills! We all know that it is no longer necessary to have an outstanding personality to be a good manager. But actuaries need to promote themselves as a body. This needs

to start at the college level; it needs to come up through the professional level; and, as I have said once before in another panel, you have to remember that you are the Society. It is up to you, not a mythical entity, to promote yourselves, and to develop programs to promote yourselves to general industry. I think many actuaries would be very surprised to find out how attractive they are to other industries. All you have to do is tell them who you are.

MS. BARTLETT: Linda, what is the Career Encouragement Committee thinking about doing that might help in this area?

MS. EMORY: I'm new to the Career Encouragement Committee; however, most of the efforts of the Committee have been to encourage more people to get into the actuarial profession. We have the Subcommittee on Relations with Colleges, Universities, and High Schools. We have a Publication Subcommittee which prepares material discussing actuaries to send to various publications. We have the Minority Recruiting Subcommittee, and we also have a Subcommittee on Actuarial Opportunities. The latter is the Subcommittee which is trying to determine the supply and demand questions and the possibility of nontraditional employment. This is the framework of the Committee.

The recent concern that we sense is that we are going to have too many actuaries in the future to fill these traditional actuarial spots. Because of this concern, there will a need for the more general business person. We feel it is very important to concentrate our contacts with high schools, colleges and universities and to define the actuary in terms that address the broader qualities that an actuary really needs. In conclusion, the Career Encouragement Committee needs many Society members doing this type of activity. A few members cannot do it.

MS. BARTLETT: Before we discuss future traditional employment, let us hear some comments about our previous discussion.

MR. WESLEY WELLER: I am an Associate, and after working in insurance for five years, I am looking at over 1,000 hours of study to become a Fellow. I also have a master's degree in statistics. My question is: If the insurance industry is not going to be able to support all of the future actuaries, why wouldn't one be better off going to a business school and getting an MBA?

MR. COREY: If you want to work outside the insurance industry, you should go to school and get an MBA. If you are staying in the insurance industry, you are far better off to have the Fellowship. The best combination is to have both the Fellowship and the MBA. There are a number of people who have that.

The Fellowship exams are certainly more suited to, and directed toward, the insurance industry. This is because insurance actuaries and insurance executives develop the syllabus. Thus, we need a broader view as to what can help an actuary in the areas of management and professions outside the insurance industry.

Until non-actuaries develop the syllabus with actuaries, you will not have anything other than what you have right now.

MS. BARTLETT: I am concerned about what you are saying, Wes. The actuarial exams should teach a student how a particular business works and how this can be transferred to other disciplines. I do not know if business school would do this better. I hope none of you Associates will leave this session saying, "I am not going to take any more exams; I am going to go to business school." I would be very derelict in my duty to the Society if I have encouraged that course.

MR. COREY: Let me clarify this. This is a great profession. I think you are probably 90% of the way there, as opposed to the MBA, who is probably 80% of the way there. I think that you have a tremendous base and in broadening that base you will become a highly marketable individual even beyond the insurance industry. You have the skills; you have the intellect.

It appears that the vast majority of the people here have had fifteen years or less experience in the insurance or consulting industry. This shows where the future interest lies. I think it's really up to you to broaden your profession because you have a vested interest in it. Ten years from now, some of you will be or need to be in other industries.

MR. RICHARD SIEBEN: I suggest that there is no such thing as a standard MBA. The quantitative approach of the University of Chicago is different than that of Harvard, which is different from that of Stanford, and so on. However, those are diagnostic approaches to problem solving. Actuarial science is also a methodology of diagnosing and solving a problem. The methodology is internal in each approach, and the end result will be the same. If professionals can get away from using jargon in expressing their thoughts when they reach a solution, the method of solving the problem would be totally transparent to their audience. Many times, because we live internally in the insurance environment where the labeling goes on, we tend to use their labels. Thus, actuaries need to broaden their own scope, as Mike was suggesting, in terms of their skills. Actuaries need to start going through the process of looking at their skills as they apply to other industries.

One industry to which I see this principle applying is health care. I work with the entire health care delivery system and I look at the problems of survival that face major hospitals because of cutbacks at the Federal level and because of the movement towards prospective reimbursement. The traditional financial function for these hospitals now requires making life and death survival decisions in terms of setting their revenue base. This is so intricate that I can't see why hospitals do not hire Chief Financial Officers to completely revise the financial function.

Most actuaries employed within the Administration are dealing with specific government programs. I wonder where the actuaries are in the Congressional staffs, the Budget Committee, and the Senate Finance Committee. This is where the real contributions to policy could be made.

Finally, with our current economy and high interest rates, why are not more actuaries closely involved in the actual decision-making process in terms of investment strategies for the companies that they work with?

MR. FRANK ROBERTSON: I am a consulting actuary with E.S. Knight and Company in New Zealand. Our experience might interest you because in my office, where we employ no technical staff except actuaries, more than half of our fee income is from nontraditional areas of work.

We were forced into this some years ago when new legislation meant that it would be virtually impossible to start life insurance companies. Such companies had been a fertile source of work for our consulting actuaries. Finally, when a new government foreshadowed a complete overhaul of pension legislation, we had nothing to do in the traditional areas for two years. Thus, to pay the grocer, we went out and prospected in nontraditional areas. We had our greatest initial success in the finance industry by helping it set rates which would give them their yield objectives. We also helped merchant banks explain complicated financing propositions to their clients.

We entered these new fields thinking that these people would know more about compound interest than we did. We found that once we learned their jargon, this was not the case.

However, finance is not the area where we see our greatest growth in the future. We are finding much work available in advising our traditional clients, employers who sponsor pension funds, in nontraditional areas. These people are already familiar with actuaries and are familiar with how we apply our skills. If we look for the opportunity, they are quite ready to let us supply those skills in other areas of their operation.

We recently have been involved in work such as advising a retailer on how to vary the price on his goods depending on the amount of time they are on his shelf before sale; advising on financial approaches to a syndicated bio-farming operation; and advising on the relative effectiveness of ownership or leasing of a motor vehicle fleet. There are all kinds of opportunities where our skills could contribute.

Mike said that no one outside the insurance industry knows what an actuary is. This is by no means true. Practically every company has some involvement with an actuary through its pension fund. These people do indeed know what we do. Mike also said that the actuary is the only professional trained in the operation of the life insurance industry. That is too narrow a defi-

dition. In my part of the world, it is certainly true that we are the only profession trained to apply mathematical and statistical skills in a business environment. Now I recognize that this is not quite so true here because of the development of MBA programs, but there must be many companies who don't have access to these scarce and expensive MBA's. In advising employers on pension funding, we are telling them how to spend their money. In advising them in nontraditional areas, we are telling them how to earn it. They listen to us with a great deal of attention when we talk in these terms.

Let us return to the question Daphne asked earlier. The people in this room cannot sit back and say we must leave it to the Society to expand our image in this area, nor can we say we must leave it to the colleges or to the E&E committee to put more nontraditional content into our work. This will follow the development of nontraditional work, not lead it. We already have the skills required to broaden our scope into nontraditional areas. We need to realize that these skills do translate and look for an opportunity to do so.

MS. BARTLETT: Thank you very much Frank. Your comments remind me of an encounter that I had with some actuaries from Mexico about two years ago at a Society meeting. In our discussions, they were extremely concerned about the availability of actuaries in Mexico to work in the insurance industry. Apparently there, the moment an actuary finishes the exams, he is snapped up by other industries. Thus, we now have two other countries where the situation is completely different from ours. That is very encouraging in terms of our future.

MR. MIKE COWELL: Daphne, I want to comment from my perspective, having served several years on the E&E Committee and serving currently as its General Chairman. My remarks may sound somewhat defensive and I apologize in advance for that.

The E&E program has taken some hard blows at this meeting. However, remember that it has undergone considerable change over the last several years. These changes have been designed to respond to a number of influences mentioned today. These changes are putting actuaries in a much better position to consider these nontraditional areas of employment. We have introduced operations research into the Associateship exams, and we are considering advanced statistics. We have restructured the Fellowship exams, particularly parts 9 and 10, so that we can change material in the exams without a total restructuring.

I do not claim that we have reached the end with these changes. There is plenty of opportunity within today's structure, certainly on the E&E committee, for anyone who wants to volunteer and help change the situation. A good example may be the pension fund accounting mentioned earlier. Certainly, the exam structure is fluid enough to accommodate material like this, provided this material is exchanged and not just added.

We have a serious crowding problem in the exams. A student needs 46 hours of exams to attain Fellowship. We had a session yesterday on Education and Examination, and we did not hear many requests from the Associates to lengthen that 46 hours. I am not suggesting it is a perfect system but it is much better than that of other professions. The fact that we have seven and a half percent of our entire Fellowship serving on the E&E Committee is a good indicator of the enthusiasm within the profession. Also, we have as much breadth on this committee as any profession. I end by asking whether the proof of the pudding is not in the eating - how many unemployed actuaries are there today? This is just one measure of the effectiveness of our program.

MR. COREY: We should remember that we are not necessarily talking about today. I think we are really looking at ten years from now. The issue is that there needs to be a certain amount of breadth. I don't think that anyone would ever indicate that the E&E Committee is not trying to do everything it can. But at the same time, there are some issues over the next ten years that we will need to address, and one of them will be broadening the syllabus to include information that will enable actuaries to cross industry lines. I am very much in favor of what the E&E Committee has done to keep actuaries employed.

MR. COWELL: In addition, the Committee does consider the questions of adding subjects such as management science and computer science to the exams. Of course, there is the problem of crowding again. What would one exchange for these subjects? The answer is that these are not subjects unique to the development of actuaries. There are plenty of opportunities for people to learn about computer science or learn management skills. Most actuaries avail themselves of both of these subjects outside the syllabus. Thus from my perspective, it is better that these skills be acquired outside the actuarial program.

MS. BARTLETT: Earlier, we talked about the possibility of three specialties: life, pension/employee benefits, and "all other." Has there been any type of consideration given to this third possibility?

MR. COWELL: We have not considered that specifically, Daphne. We have considered from time to time the need for a research Associateship. This is someone at the Associateship level who wants to do research work and doesn't want to become a Fellow. On the Fellowship level, we currently have at least twelve routes to Fellowship. This includes U.S. and Canada, the six series of primary and secondary specialties within, and the individual or pension route for part 7. Thus, in looking at our examination process, your suggestion is very reasonable. You should come to the E&E meetings and get your ideas to the Board of Governors and the Education Policy Committee. Our Education and Examination system is very open in terms of considering ideas, implementing them into the system, or explaining why we cannot implement them.

MS. BARTLETT: Let us continue now with our next question. What will traditional actuarial work be like in the future? Linda, would you like to comment briefly on that?

MS. EMORY: It is difficult for me to say what traditional actuarial work will be. I think there will be much of the same work that we do now. It will be applied more broadly and there will be more opportunities in insurance companies with respect to employee benefits. We will become more involved in the marketing area, the corporate planning area, and in all aspects of the insurance and employee benefits business. The more general our background, the more we will be ready for what is going to happen in the future.

MS. BARTLETT: Mike, do you have anything?

MR. COREY: The key phrase again will be competition. The traditional roles will demand a greater technical emphasis on product development, a stronger emphasis on "bottom line" financial knowledge, and stronger data processing skills. Certainly continued emphasis on communication skills is necessary because an increasing number of actuaries will find themselves in responsible management roles outside of the actuarial department. Overall, the individual will continue to have to work on developing an overall business-person attitude about marketing management and try to continue to broaden his skills.

It will be a tough ten years for all of us in this room in terms of what the changes will be. Many of us will try to keep up with the changes, and succeed; others will not be that fortunate. It is important to continue to broaden and develop your skills and utilize what you have because the industry is going to need you badly.

MS. BARTLETT: I see more hiring of consulting actuaries by companies for a couple of reasons: (1) you do not have to pay a full-time actuarial staff, and (2) consultants can sometimes get things done faster and with a little less politics.

I see a need for computer skills, as Mike did, because there is going to be much more emphasis on efficiency. I see a demand for more creativity among the actuaries, perhaps a little bit more of the art and a little less of the science. There's going to be less patience with perfectionists. The "backroom" actuary will not be quite as accepted in the future as he or she may be today. The company will place more emphasis on getting things done faster without studying it to death. This is related to the perfectionist idea and also to what Mike said about "bottom line" orientation.

I agree that there will be fewer companies in the future and those of us who want to survive in traditional employment are going to have to be good - really good. There is not going to be nearly as much tolerance of mediocrity.

