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**FOCUS 2000: PREPARING THE ACTUARIAL  
PROFESSION FOR THE FUTURE**

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- o What do we need to do as a profession in order to prepare ourselves and our profession as a whole for the needs and demands of the future? To help answer this question we will focus on three key areas:
  - Strengthening our foundation in basic education, continuing education and research,
  - Building professionalism through professional standards and discipline, and
  - Enhancing our public image and influence through public relations and government affairs.

MR. JAMES J. MURPHY: In the coming year, the Actuary of the Future Task Force, which is sponsoring these sessions, will be focusing on actuarial employment opportunities in nontraditional areas.

Now, I would like to introduce our panelists. Jim Hickman is Dean of the School of Business at the University of Wisconsin, Madison, and a long-time actuarial educator. Jim has been active in the profession, having served on the Society of Actuaries' Board, among other activities.

Barbara Lautzenheiser is Principal with Lautzenheiser & Associates, located in Hartford. She also is very active in the profession; she is a Past-President of the Society of Actuaries and a recently retired member of the Actuarial Standards Board.

Steve Cook is Executive Vice President and General Manager of the Washington office of Edelman Public Relations Worldwide. Edelman is the public relations firm that the profession is working with on the Forecast 2000 program. This program is designed to promote the actuarial profession among the public and public-policy leaders by making them aware of the profession and what our profession can do for them -- how we can help with public-policy decisions.

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## PANEL DISCUSSION

Jim Hickman will go first; he will be speaking about strengthening our profession's foundation in the areas of basic education, continuing education, and research. Following Jim, Barbara will talk about building professionalism through professional standards of practice and discipline. And then, Steve will speak about enhancing actuaries' public image and influence through public relations and government affairs.

**MR. JAMES C. HICKMAN:** It's an old academic tradition to end lectures with a quiz, but I'm going to start with one. The first question: Who is Warren Beatty? That's right, he's an actor. How many of you saw his movie "Reds?" Now, here comes the tough question. What was "Reds" about? What person? Yes, it was about John Reed. Reed was an American journalist who grew up in Portland, Oregon, and got swept up in the Russian Revolution. He became a big supporter of that revolution, and in 1918 he wrote home the following great sentence: "I have seen the future, and it works."

As James Schlesinger pointed out, 72 years later we're not so sure that the Reds' revolution worked. In any case, we're going to try to emulate John Reed. We are going to try to peek into the future, albeit "through a glass darkly." Then our goal will be to make the future work. We do not have a plan to assure our success, as Lenin thought he did, but I would like for us to try to sketch those systems of adaptation that might make our profession, our future, work.

### **DEFINITIONS, TO START**

Mathematics teachers always start with definitions and proceed from there, and I do not want to go against that tradition. Since the main theme of this session is professionalism, what is a profession? According to the dictionary, a profession is an occupation requiring advanced study in a specialized field.

Now, if you take a look at the Preface to the Actuarial Standards of Practice, you see that Edward Lew, who wrote that preamble, quotes a man named Eliot Freidson, who had written on the profession of medicine. Freidson says that a profession is distinct from an occupation in that it has been given the right to control its own work.

Now, in proper lecture fashion, once a definition is in place, we should be able to draw conclusions. Let's see what some of those conclusions are.

First, a profession is built on a foundation of knowledge; therefore, one thing a profession does is to rebuild, strengthen, and expand its foundation of knowledge.

Second, if society has, in fact, given a profession the right to control its own work, then the profession has to have a mechanism for exercising control over its work. Society does not grant power unless it expects something back; in other words, society expects service from the profession. Barbara Lautzenheiser will soon be talking to you about what society expects and requires of our profession, in terms of control mechanisms, if we are to have this power over our own work.

Third, the public needs to understand both what a profession does and how it can serve the public interest. That is, what are the special varieties of competence of the

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profession's members and what control mechanisms exist for the public's protection? Steve will be talking to you about how we communicate this information.

### REPORT CARD FOR THE PROFESSION

Now, in part because I am a professor, I think that we should have a report card at this stage and grade the state of our knowledge foundation. For example, how good is it? Where is it weak? Where does it need to be rebuilt? When we take a look at the knowledge foundation, we first view the fundamentals, then what we have added to the fundamentals, and finally, how we have applied those fundamentals.

First, what are the fundamentals? I don't think that there's any question about it: the mathematical sciences are the singular, the unique, aspect of actuarial science upon which the profession is built. Historically, in practice and in education, the foundations of this profession have always been the mathematical sciences.

How are we doing in adding to these fundamentals? My guess is that, with respect to mathematics' rapid expansion into the area of finance, we have lagged behind a bit.

You may have caught the news that the Nobel Prize for economics was given for advances in the area of finance. The prize was given to Harry Markowitz, and it is well deserved. Indeed, since Harry Markowitz's thesis of 1951, it has been a period of remarkable expansion for the mathematics of finance. If I were marking our report card now, I would have to say that our profession has lagged behind in adding finance to our foundation.

We also have probably not kept up well enough with what has been going on in statistics, although I believe we are doing a better job than we have in the past. I do think we should give ourselves at least a B for perseverance in the fundamental subject of demography. Students usually squawk about studying it. But, what have been the two most dynamic events influencing this profession in recent years? I would say, the aging of the population and the AIDS epidemic. One is unexpected; one is predictable, although its implications are not.

These events, the aging of the population and the AIDS epidemic, are driving actuarial practice, whether it be in the area of pricing, in product design, in reserve strengthening, or in planning for social security and pensions in a changing society. These two events are studied using the tools of demography.

How have we been doing with respect to research on basic topics, the fundamentals? My guess is that we've been doing well, but not as well as we should. We have overlooked certain topics, and I think we have been a bit naive with some of the models that we've constructed or overlooked. In some of our models we may have assumed independence -- as statisticians are prone to -- when, in fact, it isn't there.

So, I think in this area of ideas, the mathematical sciences, we have not done badly. But, as with all things, there is room for improvement.

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The next of the fundamental building blocks after mathematics is, of course, economics. Not long ago, monetary economics (money and banking) was about the only economics that all actuaries studied. Now, the new mathematics of investments have thrust us into a whole new area of microeconomics. In addition, our attempt to be useful in the broad public-policy area of social security has thrust us into a macroeconomic environment. In these basic subjects of economics I would give us just a passing grade. We need to incorporate economics into our knowledge foundation if, in fact, we intend to apply our tools in these two vital areas: the new mathematics of investments at the microeconomic level and, then, the great issues of social insurance systems at the macroeconomic level.

Besides not keeping up our research in these areas, I would criticize all of us in applied business fields for not thinking as deeply as we should about some accounting fundamentals. That criticism may sound silly at first, but it is true that what gets measured gets managed. We have often failed to generate numbers on the basis of which we can effectively manage. In general, we measure productivity in our industries very poorly. In fact, we hardly know how to define productivity. We do not know how to convey to the users of our financial results the reliability of our numbers. I believe that there are still important research issues in accounting.

How are we doing in applying some of the fundamental ideas of our profession?

Something that threatens our ability to apply the fundamental ideas is the chance that we may become simply tools of compliance rather than actors in making the rules. I am thinking especially of the role that the enrolled actuary has been forced into by having to certify compliance with legislatively instituted funding and vesting requirements.

If we are ultimately to serve the public, then we must have both the theory and the ideas to influence public policy; otherwise we will become simply tools of compliance. We have that awesome opportunity, I think, in the next few months, and certainly in the next few years, with respect to the valuation of life insurance companies.

Rather than just focusing on routine calculations, we have every opportunity, and a corresponding responsibility, to become, not tools of compliance, but to influence the rules themselves.

Are there other issues related to applying our fundamental knowledge? Yes, there are. If you took a look at the national policy agenda, one of the things that would be near the top is the issue of deposit insurance. This was brought to our attention by the savings and loan crisis with the decimal point galloping to the right with startling speed. What role does deposit insurance -- what roles do financial guarantees -- have in a capitalist economy? If you want the fruits of capitalism and the efficient allocation of capital, then, when you have too many of those financial guarantees, those benefits go away: you attract into financial systems sometimes charlatans, sometimes quacks, and certainly you encourage bad management. Evidence? Savings and loans.

On the other hand, if you reduce deposit insurance to zero, maybe some sweet, old moms and pops will fall between the cracks. What's the proper role for federal deposit insurance, or the Pension Benefit Guaranty Corporation, or small-business loan

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guarantees, and the host of financial guarantees we've created? I speak not of simply putting them on a more scientific basis, but what's their goal in a capitalist economy?

One of the great problems the nation has, the world has, right now is how to take care of the environment. I can confidently predict that, within the next decade, you will see laws and regulations requiring that the ultimate disposition of almost any product be defined when the product is made. And probably the cost of that ultimate disposition will be built into the price of that product, rather than leaving the problem of disposal and its financing until the darn thing wears out. This is the kind of project that we should be able to do and do very well. It will happen because it has to happen. We cannot defer and assume that those disposal costs are zero. They are not.

What about the process by which we gain understanding of the fundamental ideas of our profession? Let's give ourselves a report card on the process of our basic education for the profession. As is generally true of education, I would say that there is an overreliance on short-answer tests and an underreliance on more comprehensive learning experiences -- that is, university-type experiences. (I will turn in a moment as to why I think that's true.) And I think the rather artificial barrier that we have created between the basic education programs of the Casualty Actuarial Society and Society of Actuaries stands up very poorly under any hard, intellectual light -- or under the light of the public interest. There are no such distinctions on the basics.

How about intermediate education? I would make the same criticism: there is an overreliance on short-answer tests to measure what are, in fact, complicated thought processes. In fact, the complicated thought processes and the ability to communicate these complicated processes can probably only be learned and tested in seminars and case-study methods. We have underutilized those methods.

How about our continuing education? We owe continuing education both to the public we serve, and we owe it to you. One of the things that a profession can do is to promote and encourage lateral transfer. As the world changes, your profession should help you to acquire new skills to enable you to transfer employment from practice areas that may be waning to those that are waxing. Some of these skills cannot be acquired by flying in somewhere to attend a one-day meeting. Fundamental new skills are more likely to be acquired by days or weeks of the hardest kind of work. So with continuing education, once again I would judge that we have done a good job, but not an outstanding job, in that we have overrelied on short-term, one-day and two-day continuing education programs. Such programs are not organized to help our 40- to 55-year-old people who now live in a very different intellectual and technical world.

The theme of this session has been internationalization, and, in fact, the world has internationalized at an incredible rate, far outpacing both our education programs and most university education programs.

Once I went to the Wisconsin Actuaries' Club, and I started to make a speech like this. Then I realized it was sheer nonsense for me to speak about internationalization because a quarter of the people in that room were already working for firms that were owned

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overseas. I couldn't tell them anything. They already were part of an international financial network.

So, in continuing education we must do better both to communicate new ideas and to present new technical ideas that are not easy, and thereby help all of us become equipped for this remarkable international age in which we are living.

Now let's take a look forward, as I mentioned "through a glass darkly" (with apologies to the Apostle Paul). We inevitably will have to place greater reliance on university education to provide a more comprehensive program, a program not only to impart the basic knowledge, but also to help you with those communication skills and more complicated, step-by-step thought processes that are an important part of your practice.

I think that we will have to work for a more united, basic education program, for economic and political reasons, and, even more important, for intellectual reasons -- our current fragmented program does not make sense.

On the level of intermediate education, we must place greater reliance on seminars and case-study instruction in order to achieve that more comprehensive approach. We are going to have to build into that intermediate education more elements of macroeconomics and international economics because of what's happening in the world.

Continuing education will be more extensive. It will be required, and we will have to devise more flexible delivery systems than having people fly into an airport. Communications technology permits more flexibility now, and we should take advantage of it.

I would like to end by reemphasizing the necessity of research. Alan Greenspan said that the most important capital in the 1990s are the people who create new ideas.

Suppose this group had gathered in London in 1780 or 1790, some 200 years ago, and said, "We want to promote economic growth," and "Let's call the smartest economist we can find." We probably would have called Scotland and asked Adam Smith: "Adam, what do we need to promote economic growth?" And a few weeks later the message would come back, "You need land, labor, and capital." And, by golly, Smith's contemporaries did it. They got an empire, a lot of capital, and a lot of people. Boy, the combination worked.

What if we asked an economist the same question today? We could get the message back, not in a few weeks by horse, but in a few minutes by fax. Suppose that we called Robert Solow, a Nobel Prize winner at MIT, and asked the same question. What do you think the answer would be? "You need technology and good management." That's not just a slogan: Solow won the Nobel Prize for measuring it. That's today's answer: technology and good management. With those ideas comes power: ideas drive economic growth. This profession must generate those new ideas, and almost like the slogan of the state of New Hampshire, "Live free, or die," we must generate new ideas or our profession dies.

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Barbara Lautzenheiser, would you tell us about some of the mechanisms that help us to serve our publics?

**MS. BARBARA J. LAUTZENHEISER:** We are in a world of 30-second sound bites. You go back to President Carter with his penetrating, steel-gray eyes, his Cheshire-cat grin, saying: "Trust me." On the opposite end we have President Bush, with his soft, grandfatherly eyes, self-assured, reliant, trustworthy demeanor, saying: "Read my lips: no new taxes." They have about 95% visibility and about 5% credibility.

You and I have spent years studying and practicing actuarial science, in my case for nearly a third of a century. It's not that I shouldn't have studied actuarial science. It's that I shouldn't have studied only actuarial science, because behavioral science is playing as big a part in your life and my life as actuarial science is. How people react to what we say and do is as important as what we say and do. As actuaries, we tend to look at facts and think about things as being right. We also have to remember that, in spite of the fact that some things may not be right, they are real; that is one reality.

I heard someone say on the radio the other day: "He's taking a completely opposite position. He's 360 degrees from where I am." Do you think we need to teach mathematics?

My question is, however, why should the public trust us when we use phrases like "trust me"; or "my credentials speak for themselves"; or "we wouldn't give you anything but the right answers, we wouldn't do anything like that"; or "our profession has integrity"?

How many of you flew to the Orlando meeting? How many of you would have felt very good if there were no Federal Aviation Administration (FAA) standards and no airline inspections according to those standards? Would you have gotten on the plane if on every one of the tickets you bought, all you had were the words "FAA, trust me"? That's why we need standards and have been moving toward standards. We need to give our public assurances that we mean what we say. Our automatic tendency is to think about anything that we do, or adopt, or accept, in terms of what it does for us. But our number-one consideration should be how what we do affects others.

I am reminded of that myself every time I go to a convention like this. One of the first things I learned from the agency I was first with was to put my name badge on the right. When you shake hands with someone, the first thing they do is reach for your hand. Their eyes go to the right, and it is, in fact, good customer relations to put the badge there.

Standards like this are, and continue to be, for the general public. This is something that, while I was on the Actuarial Standards Board (Jim Hickman is still on the Actuarial Standards Board), we would always ask: "What does this do for the customer? What does this do for the public?"

In a similar regard, we should not make those actuarial standards simply "cookbooks," with every detail of our work spelled out. Jim spoke of the threat of our becoming tools of compliance rather than leaders of public policy. There are those who would, in fact,

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have liked the actuarial standards to be merely "cookbooks." There were others who would have preferred the standards didn't exist at all. What the standards of practice are designed to be, however, is guidance. They are not designed to give specific ingredients or solutions, but to convey a process and the related considerations. They are meant to leave room for judgment. Our professional work is not just arithmetic; our profession and our practice is reliant upon judgment as well.

If, in fact, actuarial practice were merely arithmetic, actuaries' work could be completely duplicated by computers. I suspect a lot of you right now are finding that computers are doing more and more of what you used to do. Computers are certainly doing a lot of the work that I used to do 30 years ago, as an actuarial student.

Some people say that, as things stand, we are artificial intelligence; but I don't happen to believe that. I think that there is always room for judgment. I don't believe that our thinking could ever be reduced to strict logic.

Approximately two years ago, I had a revelation of sorts. I was asked to go to London to speak to the Institute of Actuaries on the AIDS issue. Prior to my giving that presentation, the government actuary there was attempting to replace the U.K. valuation actuary, i.e., the Institute of Actuaries' valuation actuary concept, with laws and regulations much like our standard valuation laws. The Institute was fighting that very bitterly. I was applauding the Institute for maintaining that judgment was necessary for us as professionals. Then I returned to the United States one month later to go to a Society of Actuaries' meeting. I attended a session on reserving for AIDS. I was appalled at the number of the people in that room who wanted a valuation law to tell us how to handle AIDS, so that we could take a federal income tax deduction.

So, while the U.K. was fighting for the valuation actuary concept with principles, standards, and professional judgment, in contrast to that, a group of our own profession wanted laws -- believe it or not -- because of income tax standards. I will admit it is easier to follow a law and have someone to blame, but I don't think that alternative matches the definition of professionalism that Jim gave you earlier.

In addition to professional standards actually being present, they must also, of course, be applicable, and workable.

A long time ago, my attorney friends taught me a rule that I follow most of the time, but which I'm going to break today; that is not to ask a question I don't already know the answer to. In addition to that, I'm going to do something that my mother and the actuarial profession, unfortunately, sometimes taught me not to do, and that is to take a risk. I'm going to ask a question.

How many of you have read all of the standards? How many of you have read the standards that apply to your area of practice? Oh, that makes me feel a lot better.

How many of you have read a standard because you have been concerned about a problem?

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I'm going to get, I hope, an even bigger number now. How many of you know where the standards are located in your office? That makes me feel a lot better, by the way. Because without their being applied, the standards are absolutely meaningless.

I'm going to go back to my airlines illustration. If all the FAA did was develop standards and it had no inspections, you and I would find another mode of transportation home. Similarly, we have to make sure that actuarial standards can be enforced in order for them to be relied upon by our general public, which again, is our number-one purpose. In addition, we need a disciplinary system in order to make sure that our standards are enforced. Once again, if we have inspections, but safety standards are not enforced, having standards doesn't make any difference. At the moment, this is our profession's weakest link. And, you all know the old principle: a chain is only as strong as its weakest link. The chain, in this case, is our profession's integrity and reliability.

I have come in contact with lots of other professions, and I really do not find many other professions to have the high level of integrity and reliability that we, as a profession, have. One difficulty, however, is that the number of disciplinary actions we have taken against actuaries is relatively small. As a result, people ask us, "How can we rely on your standards, since we know of only one or two instances where you've taken any disciplinary action?" I then argue that those were the few times when disciplinary action was appropriate. Still, there is the problem of the public's perception. Something is only effective or strong if it is perceived as effective and strong. Once again, if you did not perceive that the FAA was effective in keeping faulty planes grounded, regardless of the FAA's actual effectiveness, you would not depend on it.

By the way, that is one of the disadvantages of all the media coverage of the life insurance industry that's going on now. By the media's implying that the insurance industry is not strong, the industry becomes "guilty until proven innocent," which is backward. Perception, or behavioral science, however, is key here. So, without too many disciplinary cases, we have the problem of convincing the general public that our disciplinary action really works.

I happen to think that, in our enforcement of standards, there is another piece missing also. Because we tend to be a profession that relies on a great deal of specificity, we also move toward the letter of the law, as opposed to the intent of the law.

I was once involved in a court case where the testimony of the opposing actuary, a member of our profession, was three-quarters of an inch thick, and on just one page she had identified the applicable principle published in our standards. She stated the principle correctly on one page, and the balance of the three-quarters of an inch of paper was then taken up with comments redefining the principle according to her own guidelines. Because of the specificity of her statement, however, she was never challenged. She had not, in fact, done anything that warranted disciplinary action, at least according to the Discipline Committee at that time. However, this is a way that our disciplinary action needs strengthening, and we are in the process of doing something about it.

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One of our profession's leaders, Harry Garber, submitted a proposal that has already been adopted in concept by some of our organizations (there are still some other meetings to be held). Under the proposal, six actuarial organizations in the United States and Canada -- the Academy, the American Society of Pension Actuaries, the Conference of Actuaries in Public Practice, the Casualty Actuarial Society, the Canadian Institute of Actuaries, and the Society of Actuaries -- would adopt a common code of practice so that the profession would have not only an umbrella organization for discipline but also one disciplinary code. A joint committee of those six organizations would maintain that uniform code and prepare supplementary guidance. The group is called, you'll love this, "ABCD" -- the Actuarial Board for Counseling and Discipline. It is set up to investigate purported violations, to counsel in cases where a violation does not warrant disciplinary action, and to recommend actions back to the various actuarial organizations.

Such an effort is becoming more imperative because a large number of us are members of two or more of these organizations. We ought to have one code to follow, one set of standards. This consistency, in and of itself, increases our strength vis à vis the public.

To effect this proposal, the organizations will have to have their constitutional bylaws and provisions rewritten to indicate that the ABCD is to handle complaints and make recommendations for discipline. This is where we are moving. I think such an effort will help to strengthen the profession, both from the public's standpoint and from the standpoint of actually helping us to move from our emphasis on the letter of the law to peer counseling.

So far, I've been talking about what I perceive to be the primary purpose for professional standards: providing protection and assurance to the general public. Of course, standards are not merely for the public's good. They also must do something for us. We are a "what-does-it-do-for-me-today?" society. I suppose that actuarial standards of practice probably have at least as much value to us as they do to the general public. First of all, they provide us with a safe harbor.

If you haven't been already, someday you are going to be confronted with management wanting you to do something that you don't think is appropriate to do. You're going to need guidance as to what to do. A standard is something that you can turn to, rely on, and say, "My guides to professional conduct don't allow that." In the long run, standards will serve you substantially better than law. Law can change. Your professional standards and principles will not change, and they can give you practical direction.

For example, early on in my professional career I was confronted with what I perceived to be a command to do some things that I didn't think matched our profession's guides to professional conduct. I was newly in office as head of the actuarial department with no mentor to turn to. So, I turned to the Society of Actuaries. We had no standards back then; we did have guides to professional conduct, however. By reviewing the guides and talking them out, I realized: "Barbara, you are not the chairman of the board. You are not the chief executive officer. The management can do what it wants to do. Your responsibility is reporting. I realized then that my responsibility was not to build a roadblock; I had no authority or power to do that. My responsibility was to develop

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road signs along the way and to report to management and to the board. That was a principle that has served me well throughout my profession. It came from reading the guides to professional conduct. This is what the standards, as well as the guides, can do for you now.

Standards and guides also help you as a professional within society. Believe it or not, standards provide some malpractice protection. If you look back at law, tort law changed in the 1960s. It shifted its focus from where to locate fault to what were the optimal results. That's why court cases today raise questions about when someone should be held responsible for the results.

Also, the public increasingly wants guarantees. People want guaranteed health, not just guaranteed health insurance. They want someone else to pay for the results of their actions.

I do not know all of the details of the savings and loans case, but it's rather scary to me that, when someone makes business decisions and takes risks, possibly with good intentions, he or she ends up in jail because the decisions were wrong. Perhaps some savings and loans' managers simply wanted to maximize benefits to their shareholders. Wanting to maximize benefits would certainly have been part of their investment decisions, although I don't know what other factors influenced their decisions.

In this climate, I suspect it's only a matter of time before some actuaries will be held accountable for results of their projections. Now that's scary, because you and I know that our projections are just that, projections.

I was angry when one of my CEOs said, "Barbara, as an actuary, you're never right." What he said was true. I gave him something better than he had before, but the projections I gave him never came out exactly right. We can't be held legally responsible for that if we are to remain risk takers. We would become tools of compliance rather than persons of judgment.

Our professional standards can help us in any lawsuit that might come along; they are significant and persuasive. I've been involved as an expert witness where the profession's standards were used, and two things happened. They not only gave authority to what was being talked about, but also once our principles are articulated, they can become part of the law and general actuarial practice.

You may think you're never going to need standards in this way. Yet you really don't know when your actions might be challenged. The existence of a standard, and evidence that you were practicing according to it, is very valuable. It protects you and gives authority to your point of view and to your work.

The bottom line is: it may seem that standards are not necessary to you, but the truth is they are necessary for us to grow as a profession, to have credibility and authority as a profession. They benefit you.

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Now Steve is going to tell us how we can actually get all of this information out to the public, so that its perception of our profession is one that's positive.

**MR. STEPHEN K. COOK:** After listening to my two fellow panelists, it's hard for me to believe that this profession has any sort of an image problem. In working with the actuarial profession, I don't know if I've ever met so many "left-brain" people who can add and subtract.

While preparing for my talk to you, I was thinking about actuaries, and the first word that came to my mind was "measurement." I said, "Oh, my goodness, I'm going to have to talk about how we measure public relations."

The two previous speakers have talked about how the profession can prepare for the world of tomorrow. I'd like to talk about how the world of tomorrow can prepare for the actuarial profession.

### **A PROFESSION'S VISION**

In its work, the Task Force on the Actuary of the Future has made an incredible contribution, in my view, to this profession. I've worked with probably 30 or 40 different professional and trade associations, and I can't ever recall such a group coming up with such specific guidelines and recommendations to move an entire field forward. Two of the objectives set forth in the Task Force's report have to do with communications and public relations, the way the profession is viewed by its external audiences, if you will. One of these objectives had to do with the nature of the actuary, and the other had to do with the world in which actuaries function.

The first objective, simply stated, is to increase the number and diversity of entrants into the profession by broadening its appeal beyond the traditional interests of math majors. I thought that was a very perceptive recommendation by Jim Hickman, one that gets at the very heart of how tomorrow's actuary needs to be armed for what is to come. Two trends contribute to this need for change. First is the belief that there are fewer and fewer math majors entering the field, which in a very short time could create shortages of skilled actuaries. Also, there is the perception that we need an increasing number of entrants with a stronger business orientation. A business background is, perhaps, a more diverse and good background for the widening, multidimensional role of the actuary.

The second objective set forth by the Task Force stated that the profession seeks to build a stronger public interface with policy makers, employers, and the business community generally in order to implement the Task Force's mission "to be perceived as being the financial architects and potential managers of enterprises." The mission is to be not the tools, but the managers -- an ambitious objective, but one I think we can readily achieve.

### **MEASUREMENT EXTENDS TO PUBLIC RELATIONS**

Now, as we move forward to address these objectives through public relations and government relations, I want to make a point about how different the fields of public relations and actuarial science are. Most of us have developed our left-brains (our verbal faculties), but don't add or subtract very well. Even so, it's vital for anyone

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involved in a public relations enterprise to demand clear-cut objectives and measurements of success. Professionwide public relations efforts must be disciplined to address specific goals, and results must be measured rigorously. Anything less threatens to lead us into that mushy swamp of image enhancement, or whatever you want to call it, which is a very dangerous quagmire that could waste our scant resources as we achieve meager progress.

The Task Force's vision is an exciting one. It sees the actuary playing a much wider role in the formulation of both public- and private-sector policy. This goal is not just an altruistic one. For example, it's hard not to imagine that both the savings and loan industry and the Congress would have been much better off right now if they'd had the sense to apply actuarial science to their decision making.

The first glimmerings of the actuary of the future can be seen in today's consulting actuary -- consulting being an important development within the profession. As consulting actuaries apply actuarial science to a broader spectrum of public and private decision making, new jobs are created; that, in turn, brings new entrants into the field. Another benefit is that a broader audience within society -- from members of Congress to CEOs -- are exposed to actuarial science and its value to decision making.

### **PUBLIC RELATIONS' COMING OF AGE**

Let me digress a moment and share with you the analogous development in my field, public relations. Eleven years ago, public relations was a career that you went into as an afterthought. In many cases, it was considered a job for aging journalists, like myself. Public relations has grown in such stature and visibility that, on the *Today Show*, diplomacy and international relations are discussed in terms of public relations. We talk about Gorbachev, or Saddam Hussein, or George Bush in the jargon of public relations.

Public relations is now an accepted management function: Few organizations of any size fail to identify their public relations objectives. The resulting payoff for people in the public relations field is clear: there are many more jobs in our field; the salaries are higher; and there's a much higher degree of professionalism. In addition, there is better academic curricula for public relations than in years past. Just in October 1990, in Washington, D.C., I've had the opportunity to speak to graduate students at most local universities, some with the stature of Georgetown University and American University. When I was going to school, public relations was rarely taught.

Above all, we see a much higher caliber of talent entering public relations. Crossing my desk every week are 20-50 resumes from very highly educated individuals seeking to go into the field. No longer is it a career afterthought.

### **ACTUARIES' NEW VISIBILITY**

I predict some of these same developments will occur in the actuarial profession; the first signs are already here. And there are a lot of reasons for the progress that's being made. Some eight years ago, when I first met Erich Parker, Director of Public Relations for the American Academy of Actuaries, the Academy's public relations effort was in its infancy. Today, both the Academy and the Society of Actuaries, with Director of Communications Linda Delgadillo's stewardship, have become expert sources for the

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nation's leading business journalists. Actuaries are quoted widely on important stories involving risk in business and in public policy. The Academy's new magazine, *Contingencies*, is reaching opinion leaders beyond the profession with fresh and provocative information designed to broaden public understanding of what actuaries can do.

The Forecast 2000 program, which I've had the pleasure of being associated with, was originally initiated to celebrate the profession's centennial. It continues to put the leaders of the profession on television and into print, as well as bring them before the eyes of Congress and the nation's leading executives.

For those of you who may not be that familiar with the program, it was initially designed to give the actuary visibility as the source of credible information about risk from a broad perspective. So, we designed the first year's program focusing on four to five practice areas, some of which were traditional, such as pensions and health care, others which were nontraditional, for example, environmental risk.

As part of the program, we put together surveys of the profession -- I'm sure many of you participated in them -- and then released them to the press. Their release helped to position the actuary as an expert source on topics that journalists might not have thought to contact an actuary about. Then, we organized symposia, involving not only leading members of the profession but also other experts on the environment, insurance, Social Security, and other issues.

The Forecast 2000 program continues today. This year we're focusing on five more issues, ranging from saving for retirement to health care and the graying of the population. Next week we're putting Jim Murphy on the road again, sending him out to California. We've had media tours in New York and in Canada just within the last month.

Now, it's nice to see your name in the newspaper, but what does all of it mean? There are some important measurements to consider. We had 2,000 requests for our surveys of the profession, and a significant proportion came from members of Congress and from the federal executive agencies. Our surveys were quoted widely.

Also, I was pleased to see the Society of Actuaries report a 25% increase in applicants for the professional examinations during 1989. I'm sure many factors contributed to that increase, but certainly the profession's public relations efforts that year helped to stimulate interest in the profession among students as well.

In its first year, the program won the highest award from the largest public relations chapter in the nation. Yet it's not enough to rest with what's been accomplished; there's a great deal more to be done. The goal of broadening the background of the actuarial entrant remains a very important one. Perhaps that's an area where the profession should focus its public relations efforts in the future.

Now, let me share with you some news that is not so good. A survey was taken recently by a group called the Employers Council on Flexible Compensation (ECFC), which is a trade association representing about 700 benefits managers with leading corporations

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(primarily the Fortune 500 corporations, as well as nonprofit groups). This survey of 600 chief executive officers covered a number of topics. One of the questions addressed the role that consulting actuaries play in compensation benefits and decision making. Only 16% of the 600 CEOs said that they called upon actuaries for advice and assistance in benefits management. By contrast, 63% of the CEOs said that they rely upon their personal insurance agent, who may know nothing at all about the complex world of employee compensation.

The ECFC, in trying to make sense of these numbers, points to the lack of business orientation among many actuaries. It says that the profession must continue to improve its members' communication skills and broaden their business orientation -- a point that echoes clearly the Actuary of the Future Task Force's recommendations.

As we build awareness of the profession among government and business audiences, we must continue to focus on the actuary of tomorrow. Never has the management of risk, whether it be in terms of finance, public policy, the environment, or employee relations, been so critical to the success of public and private endeavors. Every sign indicates that risk management will become even more important in the years to come. Just as the profession prepares for the future with practitioners who bring to the field a broader background and who can speak the language of business and politics, so, through public relations, can commerce and government benefit from a much better understanding of actuarial science and the role actuaries can play in solving a range of problems.

Long-standing stereotypes die hard. With the resources that we have we've made solid, measurable progress. The profession's commitment to public relations and government relations is *more serious and steadfast than it's ever been*, and that's a testament to the leadership of your professional societies and to the many volunteers who guide that effort. We're sailing a very seaworthy ship; we are making course corrections, as necessary, to realize the Task Force's vision.

MR. MURPHY: Our formal presentations are now completed. We would appreciate questions from the audience on anything that we've talked about concerning the future of the profession.

MR. HENRY B. RAMSEY III: I have a question for Barbara. I took some offense, as one of those who are fighting for the favorable tax treatment of extra reserves. If we are fighting for that favorable tax treatment, are we not fighting for the freedom to make those professional judgments without penalty from other sources? Is ours not an effort in that direction?

MS. LAUTZENHEISER: Don't misunderstand me. I'm not saying that we should not pay attention to those elements that do, in fact, provide the lowest-cost products to our customers, those whom we are insuring. Yet I would personally struggle to find laws that provide the income tax deduction but still allow for actuarial judgment. If we attempt to regulate and mandate ethics, through law, or regulations, or guidelines, or whatever, people may then use those laws to get around what's ethical. We are far better off using good judgment and standing on professional integrity. We should try to get laws that allow judgment on the books so that we can both serve our customers and preserve

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professional judgment. Don't misunderstand me; I'm just concerned about laws that say "Do it exactly this way and no differently."

**MR. WILLIAM C. KOENIG:** I'd like to thank the panelists for their provocative comments. I have an observation (perhaps a question), and I would appreciate any reaction or thoughts you could provide.

Medical doctors are a profession, yet they function under certain regulatory restrictions that the public understands and trusts, and no element of medical judgment is permitted to infringe on these restrictions. A doctor cannot sell a placebo under the guise of its being a bona fide remedy. The FAA requires airplane inspections; it does not permit management to reduce required inspections in order to save money that can then be passed on to the public in lower fares, even with disclosure. Individual actuaries, as Barbara Lautzenheiser properly notes, only infrequently have ultimate company authority and, thus, are frequently led to inform, disclose, and report on the consequences of actions, if not create roadblocks to actions.

Our ultimate public, the buyers of our products, give actuaries 99% credibility, if only 1% visibility. Unfortunately, the public does not understand the distinction we make in our own minds that the product of our own efforts, for which we are judged and for which we need standards, is presented to an intermediary that can do whatever it wants to with our work. Can you help me reconcile the concept of an actuarial profession, when we seemingly are alone among professions in seeking to distance the standards imposed upon our work from the products that are ultimately delivered to a trusting public?

**MR. MURPHY:** Anybody want to take on that one? I'll make one comment. I don't know if this relates directly to Bill's question or not. In terms of our building credibility with the public, you alluded to some things that the profession has to start doing more of. I think that something that all professions have to deal with to some extent is enforcement. Under enforcement I would include such things as inspections. In any case, it's something that we in the Academy are at least going to begin to start looking at with a new committee headed up by Jim MacGinnitie.

The Canadian Institute of Actuaries has begun to do some things in the enforcement area with respect to the valuation actuary. The CIA has surveyed valuation actuaries regarding their compliance with CIA standards. We might want to consider actions like this to build some stronger role for recognizing the credibility of compliance, so we don't just have standards to point to, but we can also point to the fact that people are, in fact, following them.

The accounting profession requires peer review. Maybe we need something like that in some of our consulting activities. I know many consulting firms have internal peer review. But whatever we do, we're always going to have some problem with intermediaries. Perhaps, the stronger our standards are and the stronger the requirement for compliance is, the more those who use our work will have to use it properly.

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**MR. COOK:** That is a really excellent point, and it gets to the heart of how people perceive you. I'll never forget when, a few years ago, I was working for State Farm on unisex insurance, and we would run around Washington saying, "The actuaries made us do it." I'm sure that happens to you in a number of areas. The answer lies in building a better awareness among a broader audience of what exactly it is you do. That doesn't mean that everybody must become an actuary, but that there must be a greater understanding of the role that you do play in the decision-making process. For example, how do you come to your points of view or your projections? In essence, it's a matter of communicating the limitations of actuarial science as well as its benefits. If that awareness existed to a broader degree, in the government particularly, I don't believe that you would be held to standards that you could not meet. Nor would you be held to standards that differ significantly from the standards of those who use your products.

Every profession is, to some degree, in that position. For example, an attorney gives counsel, and his client may or may not take it. An attorney is not held accountable for a client's actions, nor should you be.

**MR. STEPHEN L. KOSSMAN:** Barbara, you mentioned earlier that some public misunderstanding exists because of the small number of cases that have come up for disciplinary action. Rather than focusing on the number, all we can look at is the information that is disseminated publicly on the actual cases.

The first time that someone in the actuarial career could be subject to disciplinary action is while that person is a student taking examinations. I seem to recall that some time ago a student was caught cheating on an examination. It seemed that the student's grade was thrown out for that particular exam, and he was told that he couldn't sit for exams for two to three more years. I had conversations with other actuaries about it, and we felt that the disciplinary action was totally inappropriate. We would have felt better about our profession if that person had been told he was not ever welcome to become an actuary.

If cases like this (wherein we give a person what I consider a slap on the wrist for unethical conduct) are what's given to the public at large, can we really expect to get the kind of respect from the public that we want?

**MS. LAUTZENHEISER:** I would like to comment again on perceptions. I think that what you say is correct. We have a lot of problems with communication. There are always going to be differences of opinion as to what a disciplinary action or result should be; the same issue comes up in any jury trial.

I can name some fairly critical court cases in the Hartford area recently where the public was appalled at what the jury said. The public's response to the jury is analogous to a normal peer-review process. Even so, due process is important, of course, because there are two sides to each story. In making judgments, you always walk a fine line. Going back to Bill Koenig's comments, there's a fine line between the domain of judgment and that of law. A physician may have standards to follow, but I sure hope he or she is using judgment in everything he or she does. In our work, we try to balance law and judgment in calculating equity in participating companies, equity in premium pricing, and

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everything else. Calculating equity is never cut and dried; it always involves some judgment. As Steve says, communication with the public about what we are doing is key.

MR. COOK: However, if a profession's review process's credibility could be crippled on the basis of a single case, then the profession has problems that far exceed that particular case. In that event, it seems the process either lacks the support of the profession or the public.

The goal should be to establish a procedure that is fair and that holds everyone up to acceptable standards that both the profession and the public can understand and accept. If it doesn't, if the discipline process is so weak that a single case should hamper it, the profession's public credibility is at risk. The decisions, individual decisions, made by a board like this should not, by themselves, guide how the profession is perceived. It's tempting to say, "Well, the first thing we must do is slap a number of wrists to show that we are effective and that we mean business." Well, if you're working in a field where there have been a great number of problems, perhaps that's the thing to do to demonstrate that you're effectively handling them. However, I would suggest that your message on discipline really should be directed to members of the profession, as opposed to the public. I don't think that you want to use disciplinary action to build public credibility in your discipline process.

MR. ROY GOLDMAN: Regarding the last question, I would just like to point out that an option for punishment is not to allow a particular person to take the exams ever. Probably, in the aforementioned case, it was judged that extreme punishment was not necessary, although a two- or three-year ban may be tantamount to the same thing.

Regarding Jim Hickman's comments on some of the changes that he thinks we should be striving for in the areas of basic and intermediate education, I'd like to point out for the record that many of those things are already being done. Short answers are being supplanted by more realistic questions and the use of case studies. We are already using intensive seminars, and courses in investment mathematics are beginning to be added as elective courses.

I would like to reinforce what Barbara said about perception being very important. Two areas where the actuarial profession has received a lot of positive public attention come to mind. First, the number of people taking Exam 100 (the exam on calculus), maybe 10,000, are taking it as a result of a write-up of our profession in *The Jobs Rated Almanac*. Some students were interviewed who thought this profession was really great. Comments ranged from, "You get all this money," to "They pay you to study and to take the exams," and "It's really an unstressful profession!"

Second, we've had Forecast 2000. I'm pleased to see the profession receive so much positive publicity and recognition from that program. Yet some of the Forecast 2000 surveys that I filled out asked, for example, where I thought most people were going to receive nursing care 40 years from now, or what would be the percent of the GNP represented by health care expenses in the year 2015, and I put down some number. That's not really the way we work as a profession. However, maybe as we averaged out all the survey results, we got something that was meaningful.

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**MR. MURPHY:** I would like to say something quickly about that. I don't know how many of you saw the movie *Star Trek IV*. The film included a scene in which Spock was asked to make a guess. It was said that Captain Kirk would have much more confidence in a guess from Mr. Spock than in facts from somebody else.

In a sense, that's what those surveys were all about. The actuary has a sense of knowledge and background behind him or her that lends more credibility to the answers. You may think your answers are not that good, but your answers are much better than the general public would get from some other sources. So, there is value in survey responses, albeit not the same value we would like to have in our research papers.

**MR. MICHAEL E. MATEJA:** I have a sense of history similar to Barbara's. I am also an actuary of the 30-year vintage that she speaks of. My recollection of actuaries' interest in such things as professional codes and standards, back at the time when I achieved my Fellowship, is that it was nil or nonexistent. The fact of the matter, though, is when you reflect on everything that you've heard here and some of the things that have appeared in the literature, it's hard to argue with the direction that the profession is taking in the standards area. I see it as a kind of a coming of age, and the question that I have for the panel is: "Do you see this as kind of a natural evolution?" We've labored in obscurity for, lo, many years. Now we are thrust in the midst of issues that will have import for generations to come. We're not prepared. I don't know the history of the medical profession or the accounting profession, where standards are more well-developed. Do you think that our efforts now are simply the natural evolution of our profession?

**MR. COOK:** Frankly, I would say "no." I think that there are many other professions out there that also seek public recognition. However, I see this profession having the resources and the leadership to actually achieve that recognition. I don't think this profession's efforts are just a matter of natural evolution. Obviously, natural evolution and human effort have to work together; you can't move until people are ready. I just don't think that we should look at the direction the profession is going and take it for granted.

**MS. LAUTZENHEISER:** I've not articulated this before, so the thought's just straight off the top of my head. I do think that our process is very evolutionary. We are conservative in nature, and we take steps slowly, maybe more slowly than other professions. Yet what we are doing in the area of standards may be the result of and fallout from what we wanted to do. What we really wanted to do and cared about doing was becoming more visible. As we saw a lot of issues come about that we had a level of expertise to help address as public policy, we became more visible. When you become more visible, you become more vulnerable, and then you have to produce the standards that will back up your credibility, given your visibility and vulnerability. So, I wonder if we haven't created standards really because we care about what's going on in social and public policy. To bring our expertise to those areas, the need for standards comes up because people say, "Who are you to be able to address those issues?"

**MR. HICKMAN:** I disagree slightly with Barbara and Steve. I think that I'm a bit more on Mike's side, in the sense that I think the world has changed. From the founding of

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the profession in the early 19th century, in Great Britain, to more recent times, most people calling themselves actuaries have worked for large companies. The actuaries' role was important, maybe even decisive, but it was always filtered. As Bill Koenig said, what we do is often presented to an intermediary.

However, the emergence of employee benefits, of Social Security with its macroeconomic impact, and the very complexity of interrelations throughout the world have propelled, if not us, at least the problems we work on, up onto the public agenda. In Teddy Roosevelt's time, it was stated there was only one agency in the federal government that affected everybody every day, and that was the Post Office. But today, Social Security is deducted from everyone's paycheck, and one out of seven of us get a check. That's a big change, and it has engaged us in a whole raft of public issues. It would be irresponsible, it seems to me, not to try to respond to the change both intellectually and professionally. If we don't do it, we would have to invent somebody to do it, because, given the fundamental change in this society since Teddy Roosevelt's presidency, somebody's got to respond.

MR. BRADFORD S. GILE: I am pleased to have heard the things I have from the participants in this program. It is absolutely imperative that, when we speak as a profession to the public (and there are many different publics out there), that we do so directly from principle. Then, we will say something that the public will be able to believe. As a professional actuary, I am driven by principle. I may be worried about the federal-income-tax implications of doing something, but that should not be what's driving my actuarial opinion. I may be able to satisfy other interests, too, with respect to federal income tax or whatever. But the real reason for my doing something should arise from actuarial principle, which can be articulated to the public.

I think that we've had some severe problems in the past because we haven't emphasized this. I think we've had a problem with the Congress; I think we've definitely had one with the regulators.

I am a former regulator. For 13 years I served on the National Association of Insurance Commissioners' (NAIC) Life and Health Actuarial Task Force. I did see some things that greatly bothered me. I saw some very fine people get up and say some things that, in fact, I knew they didn't really believe. They were driven by considerations other than actuarial considerations.

MR. HICKMAN: Brad, I think that problem's built into the world that we live in. As an officer of a church, I must promote its interests. As an officer of the University of Wisconsin, I must promote its interests. However, in each of those cases, I must keep a balanced view. That can be very difficult. Both on taxation issues and on many regulatory issues, I think some of our members have not been as balanced as they should have been in recognizing countervailing interests.

MR. PIERRE FILIATRAULT: In Canada there has been some discussion and some papers from the Canadian Institute of Actuaries on peer review of actuarial work. I think that the image of our review process could be a little bit brighter than you suggest. Most major consulting companies have a formal peer-review policy that is followed very

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strictly. Some companies even have professional standard committees. In our company, for example, the professional standard committee visits each branch to make sure that the policy that has been issued is being followed. So, files are opened, and people look to see that standards are followed. We are trying to discipline ourselves within each company, perhaps for commercial reasons or because we're afraid of being sued. Or maybe it's because we want to preserve our pride as professionals. Yet, as an actuary I feel protected when I know that I'm working for a company that has professional guidelines and that, by following these guidelines, I'm in full agreement with my principles as a professional. Granted, I'm also protected against lawsuits. In short, many companies are already enforcing professional guidelines. Therefore, I think it's only one more step before we do that as a profession.

**MR. THOMAS J. HRUSKA:** Part of the problem in trying to broaden the background of people entering the actuarial profession is that we start from a base of people who have bachelor of science degrees. They tend not to have studied a foreign language or many of the liberal arts. Maybe a partial solution is to go back to the bachelor of science degree and see if we can urge educational institutions to stretch it -- by adding more requirements. The other thing that worries me, though, is that we're taking, as a new model, the business degree. It's my impression that business majors have very narrow academic backgrounds and may lack liberal arts training themselves. In effect, we are taking the business decision-making process as a model for the way we should make decisions. That thinking process may be useful, but somehow we have to get beyond viewing business thinking as a broadening experience for mathematicians. We need to look at politics, economics, and English and communication skills. Those subjects aren't necessarily included in business degrees.

**MR. PAUL A. CAMPBELL:** A number of universities, including mine which is the University of Hartford, have spent considerable effort to develop broadly-based programs that combine mathematics and actuarial courses with a full complement of business and arts and science programs. Their graduates and ours will be total professionals in a demanding environment, able to understand people and communicate with them in a complex business world, as well as achieve valued actuarial credentials. Each curriculum should be evaluated on an individual basis for its overall strength.

