RECORD, Volume 25, No. 3*

San Francisco Annual Meeting
October 17–20, 1999

Session 63PD
Actuarial Expert Testimony

Track: Pension
Key Words: Actuarial Opinion, Litigation, Standards of Practice

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Summary: Actuaries are increasingly involved in litigation as experts for one or more parties. These assignments often raise issues beyond simply performing calculations or other tasks assigned by the attorneys.

The panel reviews the practical and ethical problems in both the U.S. and Canada, which arise when an actuary serves as an expert witness.

Mr. George W. McCauslan: I am a consulting actuary in San Francisco. Fred Kilbourne is an actuary with offices in San Diego. Murray Segal is a partner with Eckler Partners in Toronto. The basic format for this session is that we will each have initial presentations. If you have pressing questions that just can't wait, you're allowed to ask questions at that point, but we've left some time for questions at the end. I'd like to turn it over to Fred, who will start the presentation.

Mr. Frederick W. Kilbourne: My first expert testimony assignment was about 30 years ago, and it was in a somewhat conventional setting of my giving testimony for the defense of an insurance company. It was a company in San Jose and it was defending against a litigant who had been a claimant who was unfairly treated, according to the plaintiff. My testimony addressed how the insurance company set the rates and handled the claims and so forth. I think that may have been the last time that I have been involved in any expert testimony assignment that involved a single individual. I know some other people do a lot of that, but I've done quite a bit of expert testimony over the three decades since then and almost all of it involved corporations.

As for my background, I'm a Fellow of the Society of Actuaries and several other actuarial organizations, I've been in consulting for 35 years, and for more than half of those I have been an independent. The rest of the time has been with three larger firms.

I guess a good place to start is, what is expert testimony? On the Actuarial Standards Board we wrestled with that under Chairman Turnquist, when we were contemplating what became Actuarial Standard of Practice (ASOP) No. 17, "Expert Testimony." The definition of expert testimony in the ASOP does, of course, include sitting in the witness stand being examined and cross-examined in front of a jury in a case where there's a defendant and a plaintiff; that takes place in the American court system. I've encountered this three times. More often it's a bench trial with no jury. Frequently, it's not a court of law; it's an administrative hearing. Even more frequently than that, you work on an expert testimony case and it settles. I've had cases that I have said there is no way this case could settle and then it does. Of course, expert testimony can also include giving of depositions. I had one deposition about two years ago that was a videotaped deposition, and it lasted for more than a week. One of my associates, then, was on for longer than that because most of what I had to say was, “I don't know, you'll have to ask Mr. Otto.”

One category that we did not include in the ASOP as expert testimony was serving as an arbitrator. That's something that I've done just once, and it's very interesting. But, that is not really an example of the actuary giving expert testimony.

On the other hand, with the exception of one member of the ASB, we decided that media interviews constitute giving testimony as an expert to the broader public. I have a few examples of media interviews that I've had.

One case that I had did get a lot of media attention and, after a certain amount of testimony was given, I was besieged by reporters, who followed me to my hotel. I'd been up for two days getting this ready, and I had some small feeling of how people under media pressure work when I finally retired to my room, locked and bolted the door and went to sleep for about three minutes before the knocks on the door started. I didn't answer.

I have been in *USA Today* twice as an expert; once was just about a month ago. My expertise concerned cruise ships and roller coasters. A couple of years ago, there was a rash of illnesses on cruise ships and *USA Today* was doing quite a responsible article, actually, which said there had been a few of these incidents but don't worry about it. I was quoted as saying, "don't worry about it." The roller coaster was more interesting. That actually was on the front page about a month ago. There had been several fatalities involving amusement park rides, and somebody had worked out that there was a one in 250 million chance of being killed on a roller coaster ride. The reporter that interviewed me did a good job, took down what I said, which was in any given year we have about a one in 7,000 chance of a typical person in the country being killed in a car crash. So, that, of course, came across: “Risk expert, Fred Kilbourne says that it's much more dangerous to drive than be on a roller coaster.” It's one in 250 million versus one in 7,000. Of course, that's assuming one ride in a year on a roller coaster. Back at my office, we worked out to see if we could compare it on a per mile basis. What is kind of chilling is it's about equal.

Another time I had one hour to prepare for what turned out to be a 15-second spot on PBS. I was asked about an insurance policy that covered a high public official against an allegation of sexual harassment. When I got the policy, I looked and was able to research it because it was the exact same policy, the same company and the same coverage that I had. When the time came, I got the call. Actually, I don't even think it was an hour's notice. I said that I thought the coverage might be intact but I'm not sure that I could go out and hire a $500–an-hour attorney and then submit bills in arrears.

More recently I had a call from an hour long news program that was going to do a segment on space travel. They had gotten somebody, presumably at a large, national aerospace organization, to say that when we're going to do space travel for civilians we might be able to get to a point where there was just a one in 5,000 chance in being killed. So they went to an actuary to ask, what does that mean? How can we relate to that? I thought, what can I do? A hole in one under certain circumstances has a chance of 1 in 5,000. When do you have that kind of mortality rate? I finally settled on something, and I think you can check and make sure I'm right on this. "Based on the historical evidence, and only that, there is roughly a 1 in 5,000 chance that the President of the United States will be assassinated this month. There is about a 10% chance that a president will be killed." They'll never run that.

I think my earliest expert testimony was a 1964 letter to the editor of the *Los Angeles Times* where I was quite excited about what was going on in Congress, regarding what eventually ended up being Medicare. Whether that's a great idea or not, I wrote that the financing that was being contemplated seemed to be inadequate. They printed the letter in its entirety, but there was one change. I said if we keep on handling the financing of our social insurance programs this way, pretty soon we're going to have a trillion dollar deficit to sweep under the rug. They recognized trillion as a number that is only for astronomers and they changed it to a "huge deficit." I have an article in a large glossy actuarial magazine coming out in a couple of months in which I refer to, and this may be the first time, quadrillions of dollars. This large quantity can be supported.

My company is the Kilbourne Company. We have one of our offices in San Diego, and the other one is also in San Diego. We have a total of six employees. This year we've used about a half dozen subcontractors as well. Most of the work that we do, about 75%, is expert testimony of one sort or another. It's also mostly casualty work, although we are currently doing a fair amount of health insurance, a little bit of life insurance, and then a sprinkling of occasional benefits. I have a couple of benefits clients that go back to the 1960's that have stuck with me through thick and thin.

As I mentioned, most of our expert witness assignments are for large cases, and it seems that we work on these cases for years. The actuarial fees are almost always five or six figures. As I said, more often than not they settle. Occasionally we do go through to decision. In 1999, two of the cases have gone through to decisions, and in both those cases the amounts involved were 12 figures; although that does include the pennies. It's still a lot of money.

Who can the clients be? They can be, of course, insurance companies. We've worked for the plaintiffs; we've worked for the defense. They can be the insurance industry. We have given testimony probably 8 or 10 times, often in auto insurance areas, on behalf of the insurance industry. They can be reinsurance companies. There was one case that did go to trial with a decision 15 years ago, in which a reinsurer was seeking recission of the treaty, which was unusual then. Sometimes it's an insurance department, either for the department for one reason or another, or fairly often for the insurance commissioner, as liquidator of an insurance company or a reinsurer. Sometimes, of course, it's directly for the plaintiff or defendant. The defendant is often an audit firm and occasionally an actuarial firm. We've also done work for the Auditor General in California. This was quite a number of years ago, where the Auditor General was given the assignment of determining whether the medical malpractice industry was or was not losing money in California. They contracted with us to make that determination, and we said they were losing money. We have also done work for attorneys general on a number of occasions, and a couple of times for law firms who gathered together class action lawsuits. We've also worked for a large tax collection agency that is headquartered in Washington.

What should you do when you get an assignment? Try to learn enough about it so you can determine whether you should take the assignment. Then you should quickly go to the professional standards. As a matter of fact, that's a good place to start for any job that we do. The umbrella is the Code of Professional Conduct, which includes both the qualification standards and the standards of practice. If you run down the list of the standards, you'll get a checklist of what to do and what not to do. It usually is a good way to get a fix on the problems that a particular actuary may have in dealing with a case.

I have tried over many years to maintain a balanced practice. If I were to do it over again, I might try to work it to try to maintain more of a balance. We're somewhat balanced but I'd say 75% of the time it's for the plaintiff and only 25% is for the defense. However, there have been either four or five times now where we've been retained to do work for one side and then a couple of months or a year later we get a call from the other side to see about working for them. There was one case, which was a large audit firm, in which we were retained first by the defense, and then later received a call from the liquidator. I think that is probably because plaintiffs get going first and then the defense starts to think it better rally. I keep track of another category of clients and that is where we've been retained by former opponents. It is kind of rewarding to get. I think we're up to four on that.

How does one market themselves to do actuarial testimony? I had an article in *Contingencies* earlier in 1999, and I gave five points that might be worth quickly discussing. First, set yourself up to be an expert to give testimony. It is good to specialize, but don't over do it. In other words, you need to know quite a bit and in our business these days that means specialization, but you don't want to be so narrow that you'll be the chosen expert only once in 100 years.

The second point is to do a good job. It is especially important in expert testimony, but in a lot of the work that actuaries do, it's really important to be rigorous and to

not be sloppy. It comes back to haunt you in the long run. The advice I have is to pick up a lot of letters to add to your name, especially if they are conferred upon you by expensive universities. That's very good. A fellowship in this probably doesn't hurt either. Another thing is to use English well, except when you're writing lots and lots of complex, arcane, highly technical books and papers. Then it doesn't matter. You must have those so they can be referred to. Another suggestion is to be old, but there again, don't overdo it.

Actuarial judgment is very important in what we do. Our field is both art and a science. I think we've got a problem in trying to use actuarial judgment as a blanket way of saying: "you can't criticize me, because that's actuarial judgment." My contention would be that actuarial judgment is important and should prevail as long as it is supported. But when actuaries invoke actuarial judgment as a reason for some arbitrary bending of the curve that is not only not supported, but that is contradicted by the facts, I think we, as a profession, have a problem.

Cross-examination, of course, is the most fun of all, unless you get chewed up, and then it's not fun at all. It's very challenging, as you can imagine, because the attorneys who get to that point are usually quite good at their craft. About 20 years ago, I was testifying before an insurance commissioner who was sitting as the judge but was also doing the cross-examination. It was a Saturday. We started early, and it got to be lunchtime and he said, "We're not breaking. What kind of sandwich do you want Mr. Kilbourne?" When it came, he said, "it is all right to talk with your mouth full." This was the tone of the whole thing. That was fun, actually.

I had a case in a deposition where the opposing attorney was asking about my background. He looked at the year that I graduated from high school and found a two-year gap. I wasn't in the service and I wasn't in school. He started zeroing in, possibly thinking I was in jail. I had to acknowledge that during that time I'd been working in a laundry. Our attorney was just delighted because this was going to be a jury trial. He said, "there aren't going to be any actuaries on the jury, but there just might be a laundry worker."

Mr. Murray A. Segal: I just thought I'd start out by saying I'm not going to be quite as long as Fred. That proves one of the points that actuaries try to make in court when asked the question, isn't this so on the average? The answer is, the average doesn't mean anything. What it means is, what is the particular circumstance applicable to this given individual? While Fred may have spoken a little bit longer than I will speak, you could say, "On the average, the two speakers spoke *x* amount of time," but I don't think that tells you very much about how long each individual speaks. You have to be very careful when using averages.

Let me start off with what I see as the role that the actuary plays in the litigation process involving damages. My area is quite a bit different from Fred's. My area deals mainly with loss of earnings and support and future expenses arising out of such causes as fatal and disabling accidents, medical malpractice, wrongful dismissal, and marital breakdown. I got married around the time that I was starting out my career, which is more years ago than I would like to admit. My wife

belonged to a woman's service group, and the members were discussing their husbands' professions. When my wife said that I was an actuary, the reaction was dead silence until one of the less timid members asked if she didn't feel a bit queasy when I came home at night. After all, *actuary* sounds a bit like *mortuary* and the woman thought that I was in that line of work. Without batting an eyelash, my wife retorted that I don't bury the dead; I just count them.

Actuaries do a bit more than count living or dead bodies. When I go to court, I think it is important to start out by dispelling that notion, by having my lawyer/client ask me what my profession is and what an actuary does for a living. The answer that I give in this context is that “an actuary is a professional, trained in the application of knowledge in such areas as mathematics, statistics, and economics, toward the solution of financial problems involving future emerging events.” Without that type of introduction, the other parties in the court room, especially the jury, but sometimes even the judge, will not know what to expect from the actuary as evidence until he or she is well into it. We're not quite as well known yet as we would like to be, and I think it is important at the outset of giving testimony to define what an actuary is. There may be other definitions but I find that this one works for me.

The kinds of things that I do in my practice include projecting and calculating the present values of lost income, future care cost, dependency streams, and the impact of income tax on those streams and on investment earnings that are derived from those present values. I also value no fault insurance and other collateral benefits, life interest in estates, and interestingly enough determine whether or not certain loan or credit arrangements violate the criminal code of Canada's "criminal" interest rate provisions. The clients have been mostly plaintiffs' and defendants' lawyers, but they also include insurance companies, governments, trustees of estates, and special interest groups.

Before this session began, someone asked if we're going to be dealing with how we get clients. I hadn't had that in my formal opening remarks, but I thought that the thing that has worked best for me is word of mouth. When you do one case, and you do it well, as Fred has mentioned, the word gets around. If you do badly, the word gets around as well, but that doesn't tell you how you get started. To get started, get as close as you can to various lawyer groups and offer yourself as a speaker or resource person at their meetings. They have them on all levels, starting with the national bar associations. They have local and county meetings, some of which are relatively informal. Make presentations, write articles for their publications, and make yourself known. The attorneys control the process in terms of the expert witnesses or expert advisors that are retained.

In terms of the types of work that I do, one of my lawyer friends and clients put it to me: mankind is very ingenious in finding ways to maim and kill members of the species. Last week, for example, I worked on a number of run-of-the-mill automobile cases. I was also in court on a case where a medical testing lab allegedly failed to properly diagnose breast cancer in an active young woman in time for it to be treated with good prospects of success and before it metastasized and left her in a terminal condition. I also received retainer letters with respect to

a promising university student who was rendered a quadriplegic as a result of a judo accident at an athletic facility, and a bank teller who became paranoid after being assaulted in two armed robberies. She is suing the bank for not having had adequate security.

I, of course, don't get involved in the issue of whether or not there is or isn't liability. That's something for the lawyers to deal with through other avenues, but I would get involved in the question of the size of the damages the person allegedly has suffered as a result of others' malfeasance. This past summer two of my colleagues and I spent a lot of time, indeed more than on any other single case that I've ever worked on, in a $1 billion class action. That's Canadian dollars, but it's still a lot of money in American dollars. It was a case against the Canadian federal and provincial Governments on behalf of thousands of people in Canada who became infected with hepatitis C through blood transfusions.

Legal evidence has evolved into a highly specialized area of actuarial practice involving court mandated rules of procedure, statute law, and common law precedents that govern many aspects of the actuaries' work in this field. For example, many of the Canadian provinces have rules dealing with the net discount rate. That is the relationship between interest and price inflation rates that must be used in determining the present value of streams of future payments that are related to, or maybe expected to increase at the same pace as general price inflation for the economy as a whole. In Ontario, where I practice most of the time, the door is left open for adjustments of that net discount rate to take account of other factors such as general or specific productivity gains or losses and investment expenses.

To give you another example, the Supreme Court of Canada has set a maximum on non-pecuniary general damages for such items as pain and suffering at $100,000 in terms of January 1978 purchasing power. In Canada, about $268,000 is what it would be in today's purchasing power terms. Global awards encompassing both financial and non-pecuniary general damages are no longer permitted in Canada and punitive or exemplary damages are extremely rare. You really have to prove financial loss, and there are very, very few cases where the courts will go beyond that, other than of course, non-pecuniary general damages. In the worst possible case, that would be a quadriplegic who is not capable of adjusting their life. That person would get the maximum of $268,000, and from there it gets scaled down. Some collateral benefits are clearly deductible from tort damages; some are clearly not and some fall into the gray area. That's what happens with an evolving common law system, such as what we have in nine of the ten Canadian provinces.

Pension benefits accrued during marriage, for example, in Canada are deemed to be divisible family assets, as they are in most jurisdictions in the U.S. They're deemed to be divisible family assets in the event of marital breakdown, and the Supreme Court in Canada recently ruled that in the absence of specific legislation to the contrary, they should be valued on the *pro rata* method rather than the *value-added* ones. It is a very interesting distinction.

Of course, there are other detailed standards of practice set by the profession that must be followed by actuaries practicing in this field. In Canada, those are covered in an 18-page document that is divided equally between our two official languages, so there are only nine pages in English. It is titled, *Recommendations for the Preparation of Actuarial Reports and the Presentation of Evidence Before the Courts and Other Tribunals Adopted by the Canadian Institute of Actuaries.* That's the heading, so now you know why the rest of it goes on for nine pages. To give you a bit of its flavor, that document includes sections on the Institute's objectives, obtaining data and checking for their consistency, acceptable actuarial methods and assumptions, report contents and the role of the actuary in giving testimony. In addition, there are the precedents set by the courts and the court mandated rules. While none of these are conceptually all that complicated, they are in fact changing all the time and the actuary practicing in this area must be aware of them to do an effective job for his or her client. I, therefore, tend to discourage actuaries from doing legal evidence work once in a while, where their main line of work is in some other area, such as life insurance or pension plan valuations. This is especially important when approached by a lawyer who is not sufficiently familiar with this type of work. It doesn't mean you have to do it all the time, but you have to do enough of these cases so you will keep up to date with what is happening. It is very embarrassing if you don't know that the rules were just changed. For example, the net discount rate in Ontario is now 3% for the first 15 years from the date of trial, as opposed to what it was two years ago. What sort of expert are you if you don't even know what the rules are?

In most other types of actuarial work, there are not two or more parties with distinctly divergent interests, but in the area of *legal evidence* there are. That is to say there are people in the courtroom or in the negotiating process, each of whom has a very different interest in the outcome. Some actuaries are taken aback by, and simply do not have the personality to cope with an experienced cross-examiner whose goal in life seems to be to make the actuary look as silly as possible. Some people simply don't want to have that as a day-to-day risk or something thrust upon them. I enjoy it, but a number of my colleagues, who are very, very competent actuaries in many of their fields, simply say, “What do I need this for? Why do I need to let somebody try to make me look silly when I go into court?” They won't do that sort of work, or try to avoid it as much as they can.

One of the best pieces of advice that I received many years ago from a crotchety, but competent senior lawyer was this: “you have a special license as an expert witness to express your opinion rather than just stick to the facts as you would if you are on the witness stand. Don't ever venture to try to extend that license beyond the scope of your professional expertise. You might get away with it for a while, but you will eventually be torn to shreds and your name will be mud for many years to come. If you don’t know the answer when the cross-examiner asks you a question, there's nothing wrong with saying, you're not an expert in the field.” I don't hesitate to say that I'm not qualified to express a professional opinion on certain matters. And that's the best answer that you can give, if indeed that is the case.

I would add to that by urging actuaries not to succumb to the temptation of being pushed into untenable positions by overzealous lawyer/clients. They're always trying to do it. For example, I always ask if there is reason to believe that an injured person might not have been subject to average mortality rates before the accident that is subject to the litigation. I might be told that the person had some type of cancer or serious heart disease that the other side doesn't know about, and which I should ignore. I simply won't make the calculations under those circumstances, not even with a strongly worded caveat. You worry that you can lose business. Don't worry about it. The same guy will come back because he will have more respect for you.

It is often necessary or desirable for actuaries to work with professionals in other related disciplines as well. For example, there are relatively few people who understand medicine and demographic statistics to the extent needed to express a credible opinion on the impact that an injured person's condition will probably have on his or her mortality rates and remaining life expectancy. I've seen actuaries who have gone into court and said that the person is receiving a disability pension from a Canada Pension Plan, and the average mortality rates of disabled pensioners is a certain amount. I get up on the stand and say, “I don't know what the mortality rates are of this particular individual, but I would think that an individual assessment of what it is that's wrong with this person would be much more credible and meaningful than just using the average.” People who are getting disability pensions range from those who can't use their arms or legs and have nothing wrong that would affect their mortality, to people with terminal cancer. For the mortality rates, you simply can't use an average there. I typically consult with the medical director of one of the large life insurance companies, in cases like this where it seems warranted.

Health care and rehabilitation specialists, economists, and accountants also have important roles to play in the litigation process. I find it useful to keep up to date on who the leading ones are and to build up good working relationships with them. That's another source of business, too. A lawyer will call me and ask, who do you know that's good in this particular area? I do happen to know a number of people who are very good and what some of their strengths and weaknesses are. The same thing happens with them. A lawyer may have had good experience with one of them and say, “I need an actuary to do the number crunching after you've done your future care cost report.” It's very useful to have good relationships with other professionals.

Humor in the courtroom is something, in my opinion, that should generally be avoided. If the cross-examiner is flippant, which does happen sometimes, it can be turned to your advantage by stating something like, “The information I was given, Mr. Jones, is that the plaintiff suffered serious injuries in the accident that resulted in a dramatic change in his or her lifestyle and ability to earn a living for the rest of his or her working career. This person has one chance, I was told, to overcome at least the financial implications of those injuries here in this honorable court. I hardly think of that as a laughing matter, Mr. Jones.” That usually puts the tone back.

I'd like to conclude these introductory remarks by repeating what I've said many times in court. An actuary is not a fortune teller or a crystal ball gazer who can determine, with precision, exactly what would have happened if the plaintiff had not been injured. At best, the actuary creates a model of what reasonably might have happened on the basis of the circumstances at hand. The likelihood of that model being accepted as a basis for judgment, however, depends, in large measure, on how sympathetic the court is to the plaintiff and how bad it judges the behavior of the defendant to have been. I've often sensed that the judge or jury works backwards. They first determine how much the case is really worth on subjective grounds, and then they figure out how to justify that sort of award. It is important for the plaintiff's case to be based on what a well-disposed person trying the facts might reasonably find.

The lawyer for the plaintiff and the actuary that she or he retained don't have to make the defendant's case for it. Sometimes I'm asked to prepare two or three different scenarios. Before I do that I will ask whether the attorney is sure that he or she wants me to do that. It is my experience that the other side will work you down from your worst scenario. I'm not suggesting you use a scenario that is beyond reason; rather, use a scenario that, if they're going to be inclined toward your client, they might accept it. Let the defendants do their own work. If the lawyer still wants me to do the two scenarios, of course I will do that.

You must maintain your own professional independence and avoid appearing biased toward the interests of the person on whose behalf you were retained. It's very well and good to accept certain assumptions that your client gives you, as long as they won't muddy your own range if you use them. From the defense perspective, I found that it's not useful just to criticize the plaintiff's expert scenario. It is also very useful to present plausible alternatives to give the attorney a peg on which to hang his or her hat if he or she is inclined to do so. The single most important thing of all to bear in mind is that success in this area depends, to a very large extent, on the ability of the actuary to explain the results of what others perceive to be esoteric and complex mathematical calculations. The actuary must explain them in a way that is understandable and acceptable to both other professionals and laymen. It's not good enough to say that I've used this and that formula. Explain exactly what it is that you mean and try to put yourself into the mindset of reasonably intelligent people, but those who don't know what "a-bar angle n" means. That should always be a key focus of the actuary's work in all areas, of course. It is especially important in this particular area, where you're dealing with nonactuaries who are relying on your work.

Mr. McCauslan: I'm kind of the clean-up batter here. What I want to do is to make a few comments, particularly related to some differences in the U.S. context from the Canadian context on a number of the issues that Murray has discussed. As I told you, my practice is here in San Francisco. There are a number of differences between practicing in the U.S. and practicing in Canada. I have had the opportunity over time to talk with a number of experts, including Murray, about the experience in Canada as opposed to here in the states. In general, actuaries in Canada are more clearly identified in an official governmental way for giving evidence in court. That really does make a big difference. You're much more likely

in the states to end up on many of these financial loss issues where the expert on the other side is not another actuary; it's an accountant or a Ph.D. economist. They are people who tend to bring to the calculation a different expertise, perhaps a totally different approach to making the calculations. It raises some difficult issues when we go back to the Code of Professional Conduct of AAA. We have some fairly clear rules about how we deal with other actuaries when there is a professional conflict. I think we need to make reasonable extrapolations from that in how we deal with other professionals who are doing work similar to our work. It certainly is not appropriate to say, "He's only an accountant; he doesn't know what he's doing." The problem occurs when you are in front of a jury, and there is evidence on both sides. You need to be able to explain what you're doing. I once had someone insist on having me explain how a life annuity calculation was done. I knew this was going to be very painful for the jury. It was at that point that I understood why a lot of people figure out the life expectancy and used an annuity certain for the life expectancy. Even though it is theoretically incorrect, it's a whole lot easier to explain.

As Murray said, one of the biggest problems for any of you who are thinking of getting into this area of practice, is to decide if you are going to do it. I distinguish actuarial testimony between two sorts of areas. One is more the sort of thing that Fred does and I've done a number of times. My basic area of practice has been pensions, and I've been involved in malpractice cases about pensions or about how a plan was handled. That is a different kind of assignment from calculating the present value of future losses or calculating the value of pensions in divorces. When you're making a calculation and then having to explain it to a jury or a judge, it makes the explanation part of what you do more important and a lot trickier. The present value of the salary this guy would've earned if he had continued working to 60 is, from an actuary's point of view, a fairly simple calculation. However, explaining it to a jury can be much more complex.

Fred talked about the Actuarial Standards Board and the Code of Professional Conduct, and Murray made reference to the corresponding rules of the Canadian Institute. It's easy to assume that, I sort of know how to do this calculation, so I'll do it. As an expert, credibility is important if you're going to try to make a career out of expert testimony. Don't do a calculation that you really don't know everything about, or can't find out about. Obviously, you're not going to have all the information up front for everything that someone asks you to do.

Just out of curiosity, how many people in the room have been through a Fellowship Admissions Course? For those of you who haven't, the facilitators bring props, things like the Society's Code of Professional Conduct. When we talk about cases in the Fellowship Admissions Course, and there is always at least one case that involves actuarial expert testimony, we always go through the Code of Professional Conduct and ask which ones apply? Do all of them apply? Actually, there are one or two that sort of don't apply (at least not directly). Because what we're doing is often in an area where there are not the kind of detailed specific standards and rules of practice that we have in other actuarial practice areas, we find ourselves having to go back into things like the Code to evaluate how and why we do things.

There are issues of honesty and accuracy in precepts 1 and 2. Qualifications are discussed in precept 3. Disclosure and control of the work product, which can be very important in terms of a report you prepare and making sure it's accurate and complete are very important. Make sure that it's not going to be used for the wrong reason, which is covered in precepts 5, 6, and 9. Conflict of interest and confidentiality is in precept 10, and courtesy and cooperation with other actuaries and other professionals is in precept 11. I don't remember what 4 and 7 are, but they're about the only ones I left out. All of these issues can come into play and it's important, if we're going to be professionals going into court or any other situation where we're offering testimony, that we make sure that we follow our own rules. One of the easiest ways for an opposing counsel to make you look silly is to get up there and read something out of the Code of Professional Conduct or the Actuarial Standards Board rules to show that you haven't followed them. There's no way you can look good after somebody has done that to you.

Murray mentioned the issue of legal precedents. He's fortunate, he practices in Canada and has only ten jurisdictions to worry about. If you practice in the U.S., there is a much broader range. I practice in California only. On the two occasions that I've made an exception to that rule, I soon wished I hadn't. I think I've learned my lesson now; two times is enough. Some of you may live in places like Delaware, where limiting your practice to the state you're in could be sort of problematic; you're going to tend to practice in multiple jurisdictions. In the U.S., a lot more of the rules that Murray was talking about—such as the rules for discount rates—come out of case law rather than out of statutory law. You can't go to the statutes; you must go back to the court cases, in which it is decided what you do.

You're often approached by attorneys who don't know the answers to the questions you'd like to ask them. Is there case law about this? There are many more general practitioner attorneys than there are general practitioner actuaries. These are people who take any case that walks in the door. If you're going to start working in an area in which you haven't done a lot of work, but where you feel that you have the professional background to do the work, it becomes important to pick and choose your clients, at least the first couple of times out. I think of the clients as the attorneys. You need to be sure that, on the legal issues, they can give you the kind of advice and help that you're likely to need. This is particularly true if you usually work in one state and an attorney from another state calls you. You need to be sure that that person can bring you up to speed in that state, or that you can find another actuarial expert who practices in that state to give you a hand. Otherwise, you're going to get on the stand and explain exactly how you did everything the way you usually do it in New Jersey and someone is going to say, “But didn't you know that here in Pennsylvania, we have this rule?”

There is only thing that's worse when you get on the stand. It has happened to me once when my attorney was asking me questions. I was answering him and the judge looked down at my attorney and said, "Didn't you tell your expert that I told you that he was not supposed to testify on this topic?" Being blindsided by your own side is really a nasty thing to have happen.

Mr. Edwin C. Hustead: I have a different perspective on a couple of things. One is, I share your envy of Mr. Segal practicing in Canada because of all that must be dealt with in all the different states in the U.S, especially on insurance issues. I'm with a large firm, and I find that the first thing you have to ask the person calling you is who are the other parties involved; unfortunately about three-quarters of the time someone in my firm somewhere has done work for one of the parties within the last couple years, even on a totally unrelated issue. Then you simply have to turn them down. Our position is, even if it's non-actuarial work you just have to say you can't take on the job. I often work with clients who are fighting against insurance companies on things like mental health exclusions. States will tend to pass laws and, without thinking about it, will put in the words, "unless there is an actuarial-based reason." You aren't so much trying to figure out what the actuarial cost is, but whether the other actuary, in fact, did an actuarial calculation. You come into an issue of exactly what the actuarial basis is.

Unfortunately, in a few cases, I have run up against a lawyer that just doesn't want to listen. He says, "You're my expert, come and show up on this day and talk about this topic," and, that's the last you hear from him. You get up on the stand and then you think to yourself, if only he would ask me this or that. In that case, you try to talk more and get your point across.

Mr. Kilbourne: On the conflict issue, I think one of the reasons that I sometimes get called to testify on certain cases is because my office consists of me, an ASA who works for me, and a secretary. Doing a conflict check is usually quick.

Mr. Joel I. Wolfe: I've not done much expert testimony for my company. It has been in the area of wrongful termination of agent and general agent contracts. One of the most challenging things that you run across (and I did on my very first case about 12 years ago), was trying to explain to a jury, (half of whom had graduated from high school), present value calculations involving not only interest but life contingencies, policy persistency, and so on. I know George alluded to this. It's very difficult. One real challenge is to break those calculations down into the simplest terms you can for a jury that doesn't have any knowledge of actuarial science. It was a real challenge. It was my very first case, and it was a jury trial.

Mr. Segal: I'd like to respond to the previous speaker on one point. I insist, before I go onto the stand, no matter how busy the lawyer is, on having half an hour or an hour to talk with him or her to discuss exactly what questions are going to be put to me. You can't control what questions the other side is going to put to you. I will make suggestions to the lawyer such as, "This is your case; you can put whatever questions to me you want, but this is what has worked in other situations. I've been in court a number of times, and here's what I think might work for you in this case. Think about it." If the lawyer ignores you totally, he or she is not going to be in business very long. The lawyer would not have a proper and appropriate interrelationship with his or her experts, if he or she totally ignores you. You will find that you won't have that problem very much longer because that person is not going to get the good cases, and is not going to be able to afford to retain you after a while.

Mr. Kilbourne: I'm glad you responded to Ed's question. Lawyers are hard, if not impossible, to manage, but I think there is a selection process that eventually works. I was once being deposed, and after I'd given a number of opinions and all, the other side put a document in front of me and asked, "have you seen this document, Mr. Kilbourne?" I hadn't seen it so they asked if I could take some time to read it. I did. The attorney said, "If you had seen this document and had included that in your calculations and your considerations, would that have changed your opinion?" I said, "Yes." The attorney asked, "Would it have changed it 180 degrees?" I said, "Yes." That was the end of the case. The attorney, obviously, was trying to keep something from me and it was very stupid.

Mr. Harold Cherry: I had a question that was triggered from some remarks that Murray made about use of average mortality, and the use of averages, in general. Let's say we're talking about a case concerning lost income as in a marriage breakdown or wrongful dismissal. Is it incumbent for the actuary to look into the mortality of the spouse who is seeking the value of the pension, or whomever the plaintiff is, and, in effect, underwrite that life, at least as far as you can determine whether this is a standard life? If so, do you use population mortality or the mortality assumptions, if you can get them, of the employer. Or do you make them specific to the individual? This is not a case where the person is disabled and you know you have to make some adjustment.

Mr. Segal: In my experience, I will always ask the question as to whether or not there's any reason to believe that the person or persons on whose lives the calculation depends are not subject to average mortality rates. That's the starting point. The assumption that the courts generally make in Canada is that a person is subject to average mortality rates (and by average I mean either population average or working average). It usually doesn't make a great amount of difference in dealing with the present value of a stream of payments over the person's remaining lifetime if you're dealing with a relatively young person. If you're discounting at any reasonable sort of rate, it will make a bit of a difference as to whether you're using working population mortality rates or general average population mortality rates. The big difference is in big cases where information is withheld.

I was on the witness stand and was made to look a little bit silly by the attorney. He said, "Mr. Segal, would it have made any difference in your calculations if you had been told that before Mr. Brown was injured in this accident. He had three heart attacks that nearly killed him in the last three years? He has a very serious heart condition?" I said, "Yes." "Were you told that he had that condition?," the lawyer asked. I said that I was not told. Did I ask? No, I did not ask. That was many, many years ago, and ever since then, I always ask. I don't insist upon seeing medical reports, but I will ask my lawyer/client if he has investigated this and spoken to the person's doctor? Has he told you if there's any reason to believe there is anything other than average illness? I will then make a note: on such and such a date my client told me such and so. When I go into court then I am protected. I asked. Did you get the answer? Yes, I got the answer. If the lawyer didn't disclose something to me, I can't take responsibility for that.

Mr. Brad L. Armstrong: I practice in the United States. My question relates to something that I face, on occasion, when I'm asked to be involved in a case where the present value clearly is less than $10,000. It might be a young couple in which one person has a deferred pension 25 years hence. In good conscience, I can't charge them properly, and I possibly can't even agree to do anything more than have discussions with the parties involved to the degree that my fees would unfairly disadvantage the eventual assets that are being divided.

Mr. McCauslan: I do a lot of divorce calculations in the U.S. I charge for my work on routine divorce, present value calculations on a fixed fee basis rather than on an hourly basis. I can do this because I do enough of them. I will hear an actuary who works in pensions say: maybe I'll do an occasional divorce valuation, or maybe I'll draft an occasional qualified domestic relations order. Don't do it. You're going to have to charge so much money for the ones you occasionally do. I do enough that I have found that I can set a reasonable fixed fee basis for doing this work, which needs to be adjusted very rarely.

I've actually had cases where someone asked me for the report, and I called them up and asked whether they really wanted me to do the work because the value was not worth having the report prepared. I have had a report where the present value of the community benefits was less than my fee, and, I don't charge that much. The attorney said that he understood that the pension had no real value, but that his client didn't believe it had no value and he needed to have something on file. The client was willing to pay your fee to be told that she now has an interest in something that's worth less than what she just paid you. That happens. I'm aware of the problem, and certainly there are cases where I go back to people and ask, why are you doing this?

Mr. John S. Moyse: You mentioned being hired by one side and later getting a call from the other side. I once had a divorce case in which I was valuing the present value of the agent's book of business of his future commissions. I'd been working with him for about a year, and I got this call from a city about 300 miles away from a lady with the same eight-letter last name. She described a need, which was obviously for her side, and I said, I was rather busy now. I did not mention that I was working for her husband. She said, “Are you by any chance working for my husband?” I said, “Well, now that you've mentioned it...” She said, “I feel sorry for a nice man like you working for XXXXX.” So I told my client right away that she had called me but I did not tell him what she had called him.

Ms. Ellen M. Torrance: You mentioned the problem of explaining about a present value future income stream to people, half of whom have a high school education. I've never given expert testimony but I sometimes talk about insurance concepts to lay people. There is an approach that I use that seems to work for them. I have no idea how it would play in court. I talk about how if we have a million people just like you, we don't know who's going to die when. However, the statistics will indicate how many people will die in each year. The way you do the pricing is you assume that a certain number of people will die each year. When you invest the money you will get a certain rate of interest. The fundamental principle is you don't

want to run out of money before you run out of people. You set the premium so you'll come out basically even. Would this play in court?

Mr. Segal: You bet.

Ms. Torrance: That would be a workable way of handling it.

Mr. Segal: I think the important thing in a court room is for people to understand you. I actually served on a jury, which was a very instructive process. I came away with a lot more respect for the jury system. Someone pointed out that the longer you're in school, in this country anyway, the dumber you get. It may well be true. The work that practically anybody in a technical or nontechnical field does becomes complicated. The important thing is to break it down into it's essentials and say it in words that are understandable and that allow for questions, if possible.

Ms. Torrance: It wouldn't hurt if the explanation is not technical and doesn't use formulas and isn't intimidating.

Mr. McCauslan: That's what it has to be.

Mr. Segal: I always try to leave the technical complications to the other side; then it's the other side's fault.

Mr. Kilbourne: What I have found by watching other professionals is that if you are able to explain something in a particular way that has worked, go ahead and use it. Don't try to copy my style because my style works for me. Your style works for you. I've seen eminently successful lawyers who have completely different styles in court as to how they examine witnesses and how they present facts. Sometimes others try to copy them and are totally unsuccessful because it's not in their personality. They would be able to do an equally good job if they followed their own method of doing things. I've made certain suggestions here. They work for me, but they may or may not work for other people. The best way to find out is to try it out, not necessarily in court, but try it out with your colleagues or with people that you know. Do they understand what you're talking about? If they do, it's likely the jury will or the judge will, as well. So if it works for you by all means go ahead and use it.

Mr. McCauslan: Another issue, when dealing with a jury, is that a large piece of what happens comes down to how the jury perceives you as a person. It's one of the reasons why being somewhat even keeled is useful. If the jury really relates to you and feels like they can believe you, then your explanation that the present value is the amount of money that the plaintiff would need to have in an account to provide X is enough explanation for a jury. Fred made the comment that being old helps. I discovered that losing my hair and going gray at a not-so-old age has a similar sort of benefit. Juries look at me and think that I must really know what I am doing; they assume I must have been doing this for 30 or 40 years. No, I didn't start in high school. After the first or second time you've ever testified, you get a sense of what works. That's why doing it over and over again is what's important.

Mr. Brian B. Murphy: I just wanted to address the question of explaining something in the public forum by giving an example of something I had to deal with some years back, which was a situation where a labor group was bargaining for early retirement provisions. I responded with my analysis of the cost, wherein I said the cost was up. The normal cost was up and this other number goes up and the total numbers all go up. The person on the other side of the table said, "I've made a calculation, and as far as I can see, the benefits each individual is going to receive will go down. My head started to spin and I thought that the present value is still going up. Nothing much was resolved that day. I went back to my office all excited, and my mind was stimulated and I did the calculations. I found that for each individual, the benefits go down and the present value goes down. There was an issue of when the individuals received it; it was an early retirement benefit and I tried to figure out how can this be. I'm thinking of entries, normal cost and accrued liability and projected benefit obligations and I couldn't figure it out. I went to another person in the office and I said, how can this be? I can't explain this and I know they're going to ask me. Why is it that everybody's benefit goes down? The present value goes down, and when I run it through our machine, it shows higher costs? The other person brilliantly said, "Well, there's going to be a bigger retired life and more people are going to be getting less benefits." I remember wishing I were that smart. I think that's the situation that actuaries face. If we can't explain it with a math formula, it probably means we don't really understand what's going on. So I'd thought I'd offer that comment. I think that's really important for you to explain things in the public forum, because if you can't, I'm afraid that you don't really understand it.

Mr. Michael L. Toothman[*]: I have a comment and a question. I think, Murray, you mentioned you always insist on having 30 minutes with your attorney. I was a little surprised by that. I've generally testified in more complex cases, but I can't think of a case where I've ever had less than half a day of preparation with the attorney. Oftentimes, it has been substantially more time than that before we get to deposition and before testimony. That's the comment.

The question is, to what extent do you use peer review as part of your process in providing expert testimony?

Mr. Segal: In terms of preparation, I think you're quite right. The situation I was thinking of was one where I was dealing with an experienced attorney. I had contacted and issued your report and had discussions with the attorney before the testimony. We discuss the specific questions he's going to go through at the trial. Is it going to be detailed or general? That usually doesn't take a long time if you know what suggestions they're going to make.

The peer review is a very interesting facet of this, not only in this work, but in other work. I'm involved in many, many cases. It's very hard to get a peer review on each individual case, and it is also difficult to get peer reviewed where there are relatively few other people in direct proximity to you, certainly in your own firm,

[*] Mr. Toothman, not a member of the sponsoring organizations, is a Partner at Arthur Anderson LLP in Philadelphia, PA.

that are also dealing in this same sort of work. It's a problem and it's something that we're trying to come to grips with. Hopefully, we'll come up with some more formal approach than we've been using in the past. When there are difficulties or questions, I'll discuss them with some of my colleagues just to get a broad "common sense" approach to a lot of these things, including this very large class action case that I was mentioning before where it involved a number of people in the firm. On the run–of-the-mill stuff, I think there's work to be done, and I think we are working on enhancing the peer review we've had until now.

Mr. McCauslan: Let me comment on that, too, from a somewhat different perspective. As I said, my office is much smaller than my fellow presenters'. Obviously, a lot of what I do is routine calculations. The accuracy of the calculations can be reviewed by someone else in the office. In terms of the basic approach, there are three or four actuaries, all of us in independent shops in California who work in this area, and we, on an informal and irregular basis, discuss changes and issues on assumptions and approaches and this kind of thing. It becomes harder when you have to get somebody outside of your organization to give a peer review.

Mr. Kilbourne: Because they give their side of the case.

Mr. McCauslan: That's relatively rare. I'm usually jointly retained, at least for divorce related work. Everybody just sort of says, “Send it to George and be done with it.” The courts don't want to hear dueling actuaries in the middle of a divorce case.

Mr. Kilbourne: Just one comment on Mike's statement. You take four hours and Murray takes a half-hour. You must be harder to work with. I must just be impossible, because it usually takes three or four days of working with me on the case before trial.

Regarding peer review, we're trying to get up to 100% in my firm without having to re-do too much or try to get it to exactly work out. It is an important consideration. I wouldn't fault people who are in sole proprietorships or who do particular lines of repetitive work. A lot of that depends on the case, I think.
Mr. McCauslan: I think one of the considerations, Fred, is that you commented that most of your cases get up into six digits of billings. I think few of Murray's and certainly none of mine get into that range. That may have something to do with how many hours or days you spend with your attorney, as compared to us.