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Summary: The actuarial profession faces new challenges and opportunities in the future within traditional areas of employment and in new and emerging areas. Anticipating such developments, the Society of Actuaries Board of Governors, at its October 27, 1996, meeting, unanimously approved moving to the next phase of development in the redesign of the basic education and examination system. Earlier this year, transition rules were published. This panel seeks significant audience participation in a question and answer format related to issues concerning design elements, transition rules, professional development prototypes, and other matters related to the Education and Examination redesign.

Mr. Peter Hepokoski: In 1995–96, we distributed reports to the SOA membership, and the survey forms that you sent back were very helpful. We've had panels at every SOA meeting since our work began and we've talked to actuarial clubs. We had input from sections, educators, members, and students. You have clearly played an important role in the design of this system.

The format for this session is entirely audience participation, except for my opening remarks. There are no formal prepared presentations. Our experts are here to talk about what you want us to talk about regarding the new system.

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†Ms. Holmberg, not a member of the sponsoring organizations, is Education Executive at the Society of Actuaries in Schaumburg, IL.

Let me introduce our panel. Cecil Bykerk is the executive vice president and chief actuary at Mutual/United of Omaha. Cecil has chaired the board task force since its inception three-and-a-half years ago. Even though Cecil's term on the board expired in 1995, he has attended every board meeting since then to discuss the task force's progress. We think he may hold the career record for most consecutive board meetings attended. He is sort of our own Cal Ripken. Cecil's background is strong in education. He taught actuarial science at the university level for several years. He was active on the education and examination (E&E) committees, and he was vice president for education from 1993 to 1995.

Marta Holmberg is Education Executive at the SOA. Marta has a Ph.D. in experimental psychology. She has been with the SOA for 13 years and has been a key player in the task force work. She knows more about actuarial education than any of us on the panel.

Rich Lambert is vice president and actuary at Prudential. Rich was recently recruited to chair the course eight design team. Course eight is the exam that has many specialties. Rich has been active in E&E for many years, and was the general chair of E&E in 1995-96.

I'm vice president and investment actuary at Reliastar Investment Research. I'm a member of the board task force, although I did not join until 1995. I was active in E&E from 1974 to 1987, and for the last two years, I've chaired the E&E Management Committee.

Mr. Roland R. Rose: I just wanted to be updated on where the committee is with regard to developing the new exams and courses. I work on the Exam 200 committee and I know, for instance, that the current exam for the spring is being worked on. How far along are these new courses?

Mr. Richard F. Lambert: We just finished the final report on course one. That has been mailed out to academics, and I believe it's on the Society's Web page now. So course one is essentially done, and course two is very close to being done. We're trying to do them sequentially because we want to make sure we have the right relationship between the material on the various exams. Courses three and four should be done near the end of the year. Courses five, six, and eight are mostly on the same schedule. We started back in June to get groups together. Each is supposed to have a preliminary report by the end of the year that will identify learning objectives, identify a preliminary syllabus, and take a first shot at sample exams.

From the Floor: I have a few questions. First of all, when will the new exams start to be given? Do you have a deadline or a date in mind yet?

Mr. Cecil D. Bykerk: The conversion of credit from the old system to the new system will take place at midnight on January 1, 2000, along with other celebrations. The first exams under the new system will be given following that. We haven't yet determined whether we're going to offer courses one and two, three times a year. I'm sure they will be offered at least twice a year. So the first exam might be given in May. If we decide to go ahead with three administrations a year, they might be given first in February of the year 2000. No courses will be given prior to January 1, 2000.

From the Floor: I'm currently an ASA who went halfway through the fellowship exams, when you guys came up with your transition rules. I looked at them and thought, I could kill myself by taking all these bits and pieces, or I could wait. I decided to wait. My first question is, as an ASA, how much credit am I given through the new system of exams? My second question is about exam 220, which I took in 1992. I'd like to know whether that will still fulfill these new requirements? I obtained my ASA in 1991 when I only needed 200 credits.

Mr. Bykerk: So you're an ASA and you have 220.

From the Floor: I have 120 fellowship credits after course 220. So I have 200, 210, 220, and a bunch of other bits and pieces of courses.

Mr. Bykerk: You would have at least one through five. In order to get credit for six, you need to pass 230. I think there's an alternative way to get credit for Part six, and there are some special rules, depending on when you pass certain things. There are some old syllabus rules and so forth.

From the Floor: I guess that's my biggest concern. I was thinking of satisfying course six with the 220 and the extra 25 credits that I have, but I need to know how far back you accept exams, and will you accept exams from 1992?

Mr. Bykerk: The board task force's principle on conversion has always been not to take credits away. Students will not lose credits from exams they passed.

From the Floor: I guess my biggest question is with regard to course seven, the actuarial modeling course. Is that going to be similar to the current courses 121 and 152? Will you go away to a foreign site for a week, and if so, what are the logistical issues in terms of it being for everybody who wants to get their fellowship instead of for only the 60 people who took 152?

Mr. Hepokoski: As Rich mentioned earlier, the design team work has been sequential. The one instance in which it wasn't sequential is when we went through courses one through six and then focused on eight. The course seven design team has very recently begun its work. Jeff Beckley, who is chair of the overall design team, is personally chairing the course seven design team. So I think it's probably a little early to tell you the specifics about how it would work. I did talk to Jeff this weekend and he was very encouraged by the early discussions. He said that some of the logistical problems that will exist with a course like that are not going to be insurmountable. I think our presentations throughout the past year or two have talked about the course seven intensive seminar format, but we have said that if that is not workable, we may go in some other direction. The opinion is that it is going to be workable, but I can't give you more specifics. Maybe somebody else on the panel has some more knowledge.

Mr. Bykerk: I might just add a couple of thoughts. I'm not working on a day-to-day basis with the course seven committee, but I think the intention has always been to go away to a site for probably a three-to-five-day period. One of the things that the board task force dealt with was concern that the intensive seminar would be a "gimme," meaning an attendee just pays, sits in the back row, reads *USA Today*, and then gets the credits and leaves. It is likely that there will be a pretest. There will be significant material for people to cover before coming to the seminar. We haven't yet determined how that would be administered. We want to have these courses on a continual basis through the year, not just twice a year. We would probably want to make the pretests available in the same kind of time frames. We don't know yet how we'd administer them.

Mr. Philip J. Lehpamer: MetLife has a very large student program. We have approximately 75 students, but we have yet to decide what to do with these transition rules. Many of the students who are approaching Fellowship or will be close to Fellowship in the next year or so, are wondering if they should take a wait-and-see attitude. Should they take the professional development course, rather than sit for an exam? If they sit for an exam, we give them study time, so we have to decide whether to give them study time and risk that they will not sit for the exam and take the professional development course instead. It seems like some of the students are interpreting the rules to mean that if somebody has 435 credits including 100 core and 50 track, that person is basically finished and can become a Fellow on January 1, 2000. There doesn't seem to be much doubt about that. I see at least one panel member nodding vigorously.

Mr. Bykerk: There is one caveat to that which is that they still have to take the Fellowship Admissions Course. Under the current rules, unless something happens

in the interim, you're correct about the fact that they can sit there and wait. However, they won't be allowed to take the Fellowship Admissions Course until after January 1, 2000. All they'd have to do is get 15 more credits and they could take that course a couple of years earlier.

Mr. Lehpamer: It does not make much sense to wait, especially since the company looks at attainment of Fellowship when deciding on future promotions. If you have your Fellowship in 1998, you're two years ahead of the group that's waiting until the year 2000. Let me go on to the next step here. What if a person has 385 credits, including 100 core and 50 track, and has to decide whether to take this professional development course for 50 credits versus taking 50 credits of an examination? What's the best course of action for the student? How's the student program going to decide on study time and the rules? When can students start the professional development series of courses? Is that going to be starting on January 1, 1999?

Mr. Hepokoski: We had the first meeting of the Professional Development (PD) Task Force, which reports to the Education Task Force at this meeting. That specific issue was mentioned at our meeting, but at this point, we do not have an answer. We're not promising that anything taken that early can qualify. Specific rules can be expected during 1998.

Mr. Lehpamer: Many questions really hinge on when can one start the PD course.

Mr. Bykerk: One thing I can assure you of is that it won't start earlier than January 1, 1999.

Mr. Hepokoski: The current framework does indicate that once the plan is submitted to the SOA, and gone through whatever approval might be required, that courses taken 12 months prior could qualify. There's some logic to saying that if a plan is submitted, it could get credit back to 1999. Again, this is all conjecture because those decisions have not been made.

Mr. Stuart Klugman: I have a question and then a comment. When I received the Part one materials, it wasn't clear to me whether the risk management portion would be promulgated through those textbooks or some SOA prepared material that would be produced. Are we planning to do some of our own writing for that?

Ms. Marta L. Holmberg: The current plan is to rely on textbooks, rather than putting something together. If it seems that we are asking people to go through too much material, then we would go ahead and develop a short piece. What's your opinion, Stuart?

Mr. Klugman: I don't have any problem with it. When I read it, I got the impression that we were thinking of producing a study note, but it sounds like there are no plans to do that right now.

Ms. Holmberg: No.

Mr. Bykerk: I think that impression may have come earlier when we first were working on course one. We indicated that there would be a special study note developed, and when we started looking around, we found some textbooks.

Mr. Klugman: I'm a member of the course seven working group/design team. I have an additional response to an earlier question. We're planning for all the new courses to be put together. We're starting with learning objectives and we're going to let that drive the need for the intensive seminar format and determine the extent to which it's appropriate. I think our learning objectives are close to being finalized. That'll tell us a lot about what we ought to do. There's still a couple of items we're debating, and I think they're fairly critical, regarding the extent to which an intensive seminar will be a good way to do the education for this particular exam. We're also exploring a lot of options about delivery of the seminar. My guess is that it won't look at all like the current intensive seminars. It looks like it's going to be a little bit shorter. There might be more case study/business instructor-type emphasis, rather than time spent at the seminar learning specific techniques. There should be more applications and hands-on focus. So those are some of the things we're considering and I'd be delighted to hear any comments about course seven.

Mr. Hepokoski: I just want to backtrack to correct something I said just a bit ago. Marta pointed out that I misspoke about the framework for professional development. Going back to get credit was not a time period of a year. It was a limited number of credits—15 credits. Again, that is the tentative framework at this time.

Mr. Alexander D. Marek: I have a basic practical question. Are you anticipating offering some of the upper level courses once a year, as they're currently offered, or is everything going to be offered twice a year?

Mr. Lambert: The E&E committee met at this meeting and is just starting to have that discussion. The tentative plan is to offer the early exams two or three times a year and the later ones once a year, consistent with the way they are now, but the committee wants to sort of think that through. We have a new system and want to start with a blank sheet of paper. May and November exams are what we have

traditionally done. They want to at least look at that again at the right time. I'm not saying we'll change any of those things, but if there's no good reason to change, that's probably where we'd end up.

Mr. Hepokoski: Does everybody like May and November?

From the Floor: I like August.

Mr. Hepokoski: The professor in the audience is shaking his head vigorously that he doesn't like May and November.

Mr. Klugman: At our educator's breakfast, Rob Brown spoke to us about this same issue. We were all very enthusiastic about the possibility that the first two exams might be on a January–June basis to correspond with the ends of semesters. Courses one and two are clearly designed for the typical college student, and we hope many people can get done before they leave college. It would be very nice to have the exams fit our schedule.

Mr. Bykerk: Phil, did you have any voice mails?

Mr. Lehpamer: Yes I did. The questions pertained to the seminars. They recognize that the length of the seminars probably hasn't been decided yet. There was also a question about the structure of the seminars. The person acknowledges that he is probably a little bit ahead of the curve at this particular point in time and that materials would be subsequent. Has something been decided?

Mr. Bykerk: When you say seminars, do you mean the PD part and not course seven?

From the Floor: The questions pertained to the PD seminars. They recognize that the length of the seminars hasn't been decided yet. There was also a question about the structure of the seminars. The person acknowledges that he is probably a little bit ahead of the curve at this particular point in time and that materials would be subsequent. Has something been decided?

Mr. Bykerk: The PD seminars are still blank pages. It could be on existing things or the valuation actuary symposium. It could be things given by the SOA Continuing Education Committee or within the continuing education structure. It could be things given by other organizations. I don't think we necessarily thought of them in terms of seminars like the SOA offers.

Mr. Hepokoski: Both Marta and I are on the Professional Development Task Force. We didn't talk about this specifically at our organizing meeting, but I think it would be consistent with the dialogue that we've had in determining the other courses to anticipate a process for a lot of input from members and students. I suspect that at the 1998 spring meetings, there would be some sort of a panel. We would inform you about progress and invite feedback also through the SOA Web site. We'll all work on this together I hope.

Ms. Claire Joanne Veenstra: I'm going to ask a very basic question. I've been out of touch with the whole exam process for a number of years. Now I have just taken on some responsibility at the company for training, so I need to get back in touch with it. I'm wondering if you could explain the overall objective of changing the whole process and comment on what the reaction is in terms of achieving that objective?

Mr. Bykerk: I think there are at least three objectives that drove us to reexamine the process. One was to examine where we had come with the last changes, which I was involved with as well. There was a fair amount of concern that we had inadvertently, although knowingly, begun a process where we saw a reduction in the average number of credits or hours being taken. The end result was increased travel time for students. My personal belief is this created a much more competitive environment. The perception was that the only way you can compete is to focus on 10 or 15 credit segments, otherwise you couldn't learn the material well enough to compete against the other people. That, of course, is based on a curve system that we've tried to stay away from. I think we successfully stayed away from it in the first few years because we had that touch pad to go back to where we were before. We could base our pass marks on knowledge level, rather than x% or whatever. However, over time you lose the ability to go back and create normative data. So one issue was travel time, but I don't think that was the main driver.

When we started out, we didn't assume that we were going to put all the exams back together; in fact, that didn't even make the table until the design team met for the first time. The design team started working and, lo and behold, its recommendation was that we put all these things back together into eight courses. However, in the first year-and-a-half of the task force's existence, that wasn't even an issue because we really started with a blank sheet of paper and a set of principles and guidelines.

I'm going to go on and talk a little more, but I would encourage you to get copies of the first two reports or dig back in your files and get them. They will tell you what we were doing and why we were doing it. We had guiding principles. We tried to

resist getting into the details too much. We knew if we got into the details too soon, being actuaries, we'd end up just sitting and arguing and we'd never get anywhere.

So we tried to set principles and then drive from there downward. Then, when we got to the point of driving out the detail, and we got into situations where we couldn't agree, we could always go back and say, What would the basic principles of our original design say we should do? Things like: we don't have to be the sole provider of knowledge, if somebody else can do it better.

The four basic guiding principals were as follows: First, examine only those subjects that cover essential elements of an actuary's education. Second, provide a business context with rigor, consistent with that of the current mathematical education. We massaged that statement for a long time before we finally settled on that particular issue because we were criticized that we were just turning this thing into a pseudo MBA program. The third principle was to include all kinds of contingencies, not just life contingencies. Fourth, include models from outside the insurance and pension fields. Those were our guiding principles, but I think you know, at a higher level, other things that were driving us were the globalization of all business, particularly the actuarial profession. We also needed to build a structure that would allow people to get out into nontraditional areas and not be funneled through a tunnel and then popped out at the other end with a frame of reference that's restrictive and too narrow.

Hence, the ultimate approach with the PD is intended to allow that flexibility. We started out building the basic actuarial principles and technical background, which are in the first six courses. We tried to keep out of those first six courses anything that is country specific or practice-specific or anything that changes. In theory, the first six courses should cover basic long-enduring actuarial principles that should apply across the whole world. One of the things that we found out as we began to develop our structure was that the U.K. was doing something very similar to what we were doing. We also found out that the Australians were doing similar things. It was like three scientists were inventing something or discovering something all, coincidentally, at the same time. This gave us some reassurance that we must be on the right track.

Then courses seven and eight began to get into the practice-specific areas. PD helped us to move into the country-specific and more temporal issues.

You can go back and look at reasons why we made changes in exam systems in the past. Why did we go to the flexible education system? For the ability to change exams easier, change materials easier, add exams or courses, delete courses, and so

on. We tried to incorporate those same issues that came up in those revisions into this revision. I hope we won't have to change courses one through six very often.

We will see practice-specific and country-specific issues in the lower exams, but they'll be there not for the sake of learning those specific applications, but as examples and learning approaches. If you're going to talk about valuation, you can't just do it in the abstract. You have to work with something, so you will see some examples, but they'll be more learning examples as opposed to learning material for its own sake.

Mr. Roland R. Rose: It just occurred to me now, and maybe it seems like a very trivial point, that it appears as though the ASA designation goes out the window. Either you complete this thing and become an FSA or you don't complete it and you don't have a designation. Is that right?

Mr. Lambert: No, that's not the case. Under the new system, courses one through six would be the educational component for the ASA. Courses one to six map fairly well to the current 100 and 200 level courses. If you have credit for an ASA under the current structure, you will get transition credit for courses one through six, which would be the cut-off for an ASA under the new structure. In addition to an educational requirement, there will be a professionalism course for ASAs that is similar to the Fellowship Admissions Course.

Mr. Bykerk: The ASA designation might eventually be the foundation for a more internationally recognized fundamental set of knowledge. The top part might be what allows you to practice in a specific country. I'd like to recognize Paul Grace from Scotland, who is President of the Faculty of Actuaries. As we move forward and work with the international forum of actuarial associations, the day will come when we'll recognize the comparable basic education from the Faculty of Actuaries and the Institute of Actuaries and they'll recognize ours, and so on. Those are things to do in the future. We're moving in that direction.

Mr. Marek: Is the scoring system going to be zero through ten?

Mr. Hepokoski: For the sake of the *Record*, the entire panel shrugged its shoulders. We don't know yet.

Mr. Marek: My question doesn't have so much to do with the redesign; it's just a comment about the way the exams are administered now. I don't know if that's going to change, but one of my concerns with the current exam structure is the relatively low score that you need to pass an exam, especially a multiple choice exam. You can pass some of the lower level exams with 65% correct answers.

That leaves a lot of play for guessing on multiple choice. If you make the exams slightly easier, so that the pass mark becomes closer to 100%, then there's less guessing. It's just something that concerns me with the current system. I don't know if any thought has been given to this issue.

Mr. Lambert: That was one of my concerns as well. There are a number of things that have been done. That was an issue that came up when we went to the flexible education system, and we carved up the big exams into the smaller exams. The ten credit exams used to be one hour. One of the steps we took was to expand them to an hour-and-a-half so we could increase the number of questions. We also tried to make the questions a little easier so that it would be less likely that someone could pass by randomly guessing. That was a conscious thing we did to the ASA exams.

We had a question about whether we are going to keep the zero to ten score? Our objective on doing these exams is to determine pass/fail. The zero to ten is just given as additional information so you know how much additional effort you need the next time. The questions are not designed to distinguish the nines from the tens. The questions are designed to distinguish the fives from the sixes. I don't think our passing scores are as low as you hinted.

Mr. Paul H. Grace*: You'll gather from Cecil's remarks that the Faculty of Actuaries has also been undertaking a review of the E & E system in the U.K. We discovered at a meeting that we had with the U.K. President and the Society President and President-Elect some 12 months ago, that we were going down parallel tracks. We've had further meetings at the presidential level to see if we could progress cooperation. Our timetable is slightly ahead of the Society's. We have to implement definitely in 1999. We probably set ourselves a stiffer target, and some people think there will be some slippage. If there is slippage, it will be on the earlier parts of the examinations, rather than the later examination parts.

Cecil made reference to mutual recognition. Mutual recognition across borders has been a fact of life in the European union for five or six years. There was a directive issued by the European Commission called Higher Education Directives, whereby member states had to recognize people qualified in another country. For example, gynecologists qualified in the Netherlands could come over, put up a brass plate in London, and start practicing. They don't even need to be able to speak English. Likewise, with actuaries.

The European actuarial bodies, some 20 years ago, formed an association for associations called the Consultative Group of Associations of Actuaries in the Countries of the European Communities. We signed an agreement some five years ago whereby we recognized actuaries who are qualified in one of the other member

*Mr. Grace, not a member of the sponsoring organizations, is with Scottish Equitable in Edinburgh, United Kingdom and President of the Faculty of Actuaries.

states and wished to come to work in the U.K. Under that agreement, such people are currently given the designation of either a Fellow of the Institute of Actuaries (FIA) or Fellow of the Faculty of Actuaries, depending on which body they applied to. This has caused some problems and the agreements are currently being amended, such that the people have to have some practical experience before they get their qualification. It was possible for somebody to come out of a French university across the channel and put FIA after their name, before they even started working. Now they have to have three years of experience.

I mentioned we've had meetings at the presidential level. There was a meeting that Cecil attended in his capacity as Chairman of the Education Review Committee of the Society. The meeting did not include only representatives of the U.K. and the Society; there were also representatives from the Casualty Actuarial Society (CAS), the Canadian Institute, the Australian body, the Mexican body, and a host of others were present. We were talking about cooperation in the area of education. One thought that the Canadian president floated and Cecil touched upon was that of this kind of modular approach, where, for example, people might take the Society exams up to the ASA designation, and if they're going to work in Australia, they would pick up an Australian Fellowship module to complete their qualifications. Another thing that was floated at the meeting was cooperation on educational material. We currently do not use textbooks in the U.K., although they are being reintroduced. I personally see merit in cooperation among the various English-speaking associations in North America, the U.K., South Africa, and Australia and in promoting and sponsoring textbooks. It's quite likely that we will use Harry Panjer's new textbook, *Financial Economics: With Applications to Investments, Insurance, and Pension*, edited by Harry Panjer, The Actuarial Foundation, Schaumburg, IL, 1998 in the U.K.

One other thing happening in the U.K. is we don't have an associateship designation at the moment. There used to be an Associateship for Institute members, not dissimilar to your own. It was kind of a halfway qualification. That was dropped some years ago. We're under pressure to recognize people with a halfway qualification, and it's likely that with the new examinations, we'll reintroduce Associateship at the halfway stage. A number of the overseas presidents are visiting the U.K. next week. And the meeting that was held recently was adjourned and is being reconvened in London very soon.

Mr. Bykerk: My involvement with the education process here has allowed me to get involved with some of the international discussions. On the one hand, it's very stimulating and very exciting. It is also a little scary, particularly for people from North America, who seem to be inwardly focused. But it's the real world. It's

what's happening. Those of you who are still students will see further development in this way as you go through your career.

Mr. Klugman: I thought that the comments that were just made were the logical extension of the previous white papers and that in our new system, the first six exams could be for anybody. Seven and eight are for U.S. and Canadian practitioners. Have you given any thought to discouraging those who don't intend to become U.S. and Canadian practitioners from taking courses seven and eight? Could you encourage other countries who are currently using early exams to develop their own practice-specific and nation-specific qualification systems? My second comment is I almost saw the specter of "five star" examination scores returning in one of the earlier discussions. Is that under consideration?

Mr. Hepokoski: The intention of this new education system would be that courses seven and eight would still be quite universal. The country-specific differences could be in the PD program. There's still the practice-specific element in course eight. We will admit that there's a tendency for it to focus on North American practices, as Cecil mentioned. You need some sort of a case study approach to teach principles, and that will probably be North American. But given the intention of the new system, the PD is beyond course eight and that is where we anticipate taking care of issues that relate outside North America.

Regarding your question about the specter of five star, I'll ask the panel, have we discussed that? We would have to shrug our shoulders again. I think we would do everything we could to avoid that. I don't know that we've made a decision.

Ms. Holmberg: Actually, if we are able to act successfully to integrate these courses, so that we're testing across the subjects, five star is no longer an issue at all.

Mr. Bykerk: I have another comment on the issue of other countries. Clearly, our thought is that this system would create a basis on which other nations could use our early exams as a springboard to develop their own Fellowship requirements. They could take one through six or they could take one through eight and then add on to that. That would be their decision. I think we would be more than happy to work with organizations in countries that wanted to do that. There's an additional issue that we would be faced with and that is whether we would recognize them as equivalent to an FSA? If they went through the first six exams and did the associateship workshop or whatever it ends up being, they would be Associates of the Society. It's very likely that if the country used one through eight, and then added on or suggested some requirements for what we are calling PD, that they would also qualify as FSA as long as their program for PD fit our requirements for PD. If they created their own courses seven and eight, there is more of an open

issue about whether they would then be dual Fellows. It is clear that the process would be set up to do that. That was not unintentional when we did that.

Mr. Rose: Are the ASA courses one through six going to cover property and casualty subjects too?

Mr. Bykerk: The first two courses will be jointly sponsored with the CAS. We had originally hoped that we would have as many as five courses jointly sponsored with the CAS. After a great deal of hard work and effort, we did not get to that point. We only ended up with one and two. It's my hope that at some point down the road, we'll add three and four, and so on. The contingencies portion is labeled "contingencies" not "life contingencies." Obviously life contingencies would comprise a majority of the examples in taking course three, but we want to make it more general and will be working in that direction. Course four is heavily dosed with current material from the CAS syllabus. Are we specifically creating a CAS route? No.

Mr. Rose: If we don't have the property and casualty aspect fully integrated into the associateship courses, does that make us have less of a core than our international peer bodies?

Mr. Lambert: I think you need to be a little more specific about what you mean by property and casualty topics. Topics like credibility theory or technical items that are required by the Canadian Institute (4B of the Casualty exams) are on courses three or four. Cecil told you we did a lot of hard work to try to get as much joint sponsorship as we could. We actually ended up revising the split of materials on three and four as a result of that discussion, even though we didn't end up with joint sponsorship. We did learn a great deal in terms of redefining courses three and four. Course three lays out different actuarial models and then course four teaches how to apply them. The actuarial models include things like life contingencies and credibility theory. To that extent, we do have property and casualty type topics. Many of those things apply to group insurance as well.

It would be unlikely that the exams would include specifics on the types of property and casualty coverages you're going to see in the U.S. That is too specific.

Mr. Rose: For instance, in the description of courses on ratemaking, you would consider ratemaking to be fully covered in theory. It seems to me that ratemaking is a big subject, particularly when you go beyond just life pricing.

Mr. Lambert: The conflict between the CAS and the SOA is really one of emphasis. We basically had the same learning objectives; we differed on how much weight to put on one thing versus another.

Mr. Michael P. Huppert: I, like the previous questioner, have just gotten into meetings to understand more of the specifics on the changes. As I look at the courses that are laid out, I'm thinking about the travel time to Fellowship. How much longer is the travel time?

Mr. Bykerk: I'm not sure I can fully answer your question. I talked about travel time and travel time was, I think, a concern that caused us to begin to look at revising the syllabus again. When we actually got into the process, and started with a blank sheet of paper, we were very careful not to include references to travel time in our charts. That was not what we were concerned about. We're concerned about what we need to provide the essential education for actuaries. As I said before, the idea of putting all the exams back together was happenstance in a way. I mean the design team got together and they talked about what their learning objectives were. The integration of concepts seemed to be a very critical part of creating the right education process. The end result of that was to put these things back together. When we exposed that to the executive committee and then to the Board of Governors, there was almost a standing ovation by those people who deal with student programs because of the frustration over the smaller bites that people were taking. I know I didn't answer your question about travel time.

Mr. Lambert: I can't answer quantitatively. It is clear that travel time has extended qualitatively since the change in the system about ten years ago. I think we have a belief that it will shorten with this new system, but predicting how the change in the examination system will affect travel time is a little bit like predicting how a change in the tax law will affect tax revenues.

Ms. Holmberg: I don't have any specifics on travel time, but what you would get obviously, is a dispersion of how many credits people would take. When you have the big exams, everyone knows how many credits they're going to take. They're going to take one exam because it's too difficult to take two of them. There is a standard chunk that people are taking. With the current system you have some people taking more than the equivalent of one big exam. So there are a small number of people who are actually getting through faster, but the majority of people were taking less than what they would have taken before.

From the Floor: Are our student programs going to have people coming out of these courses getting professional designations with four years or less of experience in the company? Like someone else mentioned, many students get promotions

based on successful completion of these programs. They're very intricately tied. I was trying to see whether we should have a rule that says you must have a certain number of years of experience before we'll consider you for anything else within the company. That's kind of what I've been thinking of. I don't know if there is any need for comment.

Ms. Lambert: The number of exams that people have coming into the company tends to differ between the U.S. and Canada. In the Canadian educational system, people will be more likely to get through the first four before getting a job. In the U.S. it's more likely that they would have one or two. You still have six courses after that. If they pass every one of them, that would be three years. You're not going to have people two years out of college finishing it. If you do, let me know, I'd like to hire them.

Mr. Hepokoski: Stuart, could you comment on what would be typical coming out of college?

From the Floor: The wild card right now is the finance requirement for Part two. I suspect our students won't be ready for three and four until their senior year. I think it would be about the same as it is right now. Quality students should have two exams when they graduate, with a few exceptions.