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FLEXIBLE EDUCATION PROPOSAL

NOTE: The written record of this session is based on the presentations made at the Kansas City meeting (June 12-13, 1986) because that session represents the most up-to-date status of the proposals and approvals. The written record of the panelists' presentations is published only in the *Record*, Vol. 12, No. 1. Also questions asked at the San Diego, Boston, and Kansas City sessions are published only in the *Record*, Vol. 12, No. 1. Each session at each spring meeting had different moderators, panelists, and recorders.

The moderator, panelists, and recorder for San Diego were: Moderator: James J. Murphy; Panelists: Linden N. Cole, Curtis E. Huntington; and Recorder: Daniel J. Fitzgerald.

The moderator, panelists, and recorder for Boston were: Moderator: Linden N. Cole; Panelists: Curtis E. Huntington, James J. Murphy; and Recorder: Godfrey Perrott.

The moderator, panelists, and recorder for Kansas City were: Moderator: Curtis E. Huntington; Panelists: Judy Faucett, James J. Murphy; Recorder: Warren R. Luckner.

o Important ideas under the heading, "Flexible Education Proposal", are being discussed to improve the Society of Actuaries' education and examination system. The new ideas originated simultaneously in the Education and Examination Committee, the Education Policy Committee, and the Planning Committee. They have been tentatively approved by the Board of Governors, and have been presented to several actuarial clubs on a preliminary basis.

OPEN FORUM

MR. CURTIS E. HUNTINGTON: This session is a discussion of the Flexible Education Proposal that's been prepared by the Education and Examination (E&E) Committee. I serve as General Chairman of the Education and Examination Committee for the Society, and also as corporate actuary at New England Life in Boston. On the panel with me today will be Judy Faucett, general vice chairman of the E&E Committee and also consulting actuary at Milliman and Robertson in Philadelphia, and Jim Murphy, Vice-President and chief actuary of Northwestern Mutual in Milwaukee (and former general chairman of the E&E Committee).

The goals that we have established for the Flexible Education System are:

1. To shift our current exam structure and education structure to a system that is more educationally driven rather than examination driven.

2. A system that would allow adoption of a broader range of educational methods than our current system of self study.

3. A system that would allow us to develop specialty tracks on an easier basis.

4. A system that would be able to cope with changes in a smoother fashion than in the past; to eliminate transitions from the system.

The White Paper goes through an explanation of what the FES system is, tries to describe some of the background forces that led to consideration of these proposals, describes some of the educational methods that are under consideration, and identifies both benefits and concerns about both the FES and FEM proposals.

The basic concept behind the Flexible Education System is a college catalog concept. We would split the exam structure into single subject courses. For example, Part 3 currently has three different subjects. In a FES environment we would have three separate courses, one for each subject. We would introduce the concept of both required courses and elective courses. We would specify total number of units required to get a degree. Having designed a basic Flexible Education System, we could expand that concept in the future to add courses of greater variety and go beyond the self-study program that we have been operating on in the past.

Background forces that led to consideration of these proposals came from a number of different sources: the Board of Governors, the Planning Committee, and from within the Education and Examination Committee and the educational community. There were concerns that the value of the actuary was diminishing in the current marketplace and that we needed to enhance the value of the FSA and the ASA. There were also needs in the educational community. We need to respond more quickly to changes in subject matter. We want to have new educational methods available. Transitions were to be eliminated. Movement within the Canadian Institute of Actuaries and the Canadian University System indicated that there was a stronger need to interrelate with the university programs. We wanted the future educational methods that were under consideration to be part of a fully developed Flexible Education System, to extend the concepts of the FES proposal to its fullest.

We were looking at several different educational methods: traditional ones, some that use emerging technology, and ones that could get approved at various levels. Some of these methods fall in a category we have labeled Acceptance of Equivalent Credit, or AEC. Other examples of different methods include the possibility of giving some credit to people who wrote research papers, and took seminars and finishing courses. Having looked at the broad concepts and having discussed them with a number of actuarial clubs before we wrote the White Paper, the group developed a series of benefits that we thought would be available from FES:

1. The structure that we're proposing could incorporate educational responses to major professional issues as they arise.

2. Transitions will be diminished because we can add or subtract new topics with greater ease than we can now.

3. Unique tracks will be able to be added or subtracted for either specialists or for generalists.

4. The idea of electives will be added into the programs.

5. It will permit students to select courses that would be more in their interest than the examiners' interest, and, therefore, potentially produce better education.

6. It will permit alternative means of obtaining credit.

7. Minimum standards which are currently in force on Parts 3, 4 and 5 will be eliminated.

8. We'll be able to concentrate the volunteer effort that runs the education and examination system on a more meaningful, educationally based foundation.

At the same time, there were some potential concerns about the proposals under discussion:

1. The first and foremost concern expressed in all of our interactions has been that the proposal should not weaken the value of the FSA from the public's perception of the training that has been undertaken by actuaries. A particular concern was that alternative methods might, in fact, not be comparable. If we allow alternative methods, fairness and equity may be impossible.

2. There's a possibility that it might take longer to get through the exams, and that's undesirable.

3. The proposal may appear to be unnecessarily complex, and therefore might make the profession less attractive to new entrants.

4. The proposals do produce significant administrative challenges with the larger number of courses and smaller units. Complex student records would have to be established.

5. We would need a more sophisticated computer environment.

6. We would have some difficulty in accrediting courses if we use some of the alternative methods of obtaining credit.

7. There would be start-up costs.

Not insignificantly, we determined eight benefits and seven concerns. We felt that the benefits out-weighed the concerns.

The steering committee concluded, based upon this analysis, that:

1. The FES/FEM concept had excellent potential to meet the future needs of the profession, and to adapt well to a changing environment.

2. The FES/FEM concepts raise a number of concerns; we recognize those concerns and they must be carefully addressed in any implementation.

3. FES/FEM could be implemented in a timely fashion. We have proposed to do it in three phases:

   a. Parts 1-5

   b. Parts 6-10

   c. Future Educational Methods.

4. We will require a great deal of effort on the part of both volunteers and the Society leadership.

5. We could start the FES/FEM phases beginning in 1987.

The White Paper itself was to present to the members as a whole the issues that led to the FES/FEM proposal, and to describe the basic plan design and solicit reactions from the members. It is input for the Education Policy Committee, the E&E Committee, the FEM Steering Committee and the joint sponsors of our exams: the Casualty Actuarial Society (CAS) and the Canadian Institute of Actuaries (CIA). We requested comments by May 1st, so that the Board of

Governors of the Society, who met on May 21st in Boston, would have the benefit of those comments. The proposal is on-going. There are additional developments that will be occurring, and the comment period in fact will remain open for a number of months. The appendices attached to the back of the White Paper include a prototype for Flexible Education System. We will talk about this Flexible Education prototype, the professional issues, the structural issues, future educational methods and how they are operational within the FES context, and the draft implementation plan.

Here is some input from the CIA and the CAS reflecting what their views of the issue at this point are:

The CAS, with whom we jointly sponsor Parts 1, 2 and 3, has indicated that it will cooperate with a Flexible Education environment, and the splitting of the course into smaller units, on Parts 1, 2 and 3. It does that with an assumption that the current system is not in need of major revisions, in the spirit of cooperation with the Society of Actuaries. It is not convinced that the educational process itself will be significantly enhanced by a FES environment. In particular, the CAS is not completely convinced it will accept the concept of alternative methods of giving credit for a particular course. The CAS position is evolving. After consideration, it has changed its view and has gradually come around to this position. The CAS is willing to be open and communicate with us on its concerns, and discuss the process together.

The CIA, on the other hand, is strongly in favor of the proposals. The CIA believes strongly that FES is a positive step in the evolution of North American Education and Examination support, if both the Society and Casualty Society can support it. The CIA believes it gives the Canadian Institute of Actuaries the opportunity to gain control over the subjects that are important to Canadians, and the ability to give credit for university work. (For those of you who are not familiar with the Canadian system, approximately 80 to 90% of the new Associates come directly out of actuarial schools in Canada, whereas in the United States it's a much smaller proportion. So the Canadian Universities play a much greater role in the actuaries' educational process.) The CIA believes FES would help keep the Canadian practice up-to-date and that, in particular, because of the bilingualism problems within the Canadian system, FES would help to give actuaries some assistance on the bilingualism approach.

We're going to give you some of the details of the proposals, and talk about the prototype. We recommend that you ask questions regularly through the remaining portion of this presentation.

MR. GEORGE G. MORRISON, III: I think the idea, in general, behind the Flexible Education System is good in terms of making transitions. Most people taking exams as college students are in their early or mid 20s, and they're going to be working 30-40 years. You say it is easier to specialize, and make decisions sooner. I've been in the field for about 2 years now. I have no idea what I'm going to be doing in the future. One thing I don't want to do is specialize at this point. Maybe when I'm 45 I'll look at specialization. Were there any concerns about that?

MR. HUNTINGTON: The proposals include both specialty tracks and a generalist track. The desire is to be able to provide students who are clear on their career objectives an opportunity to go directly down a pension path or a life path, or down a path for investments, for example, which I think will be a logical new track. At the same time, the track system would give a generalist person, as you've described yourself, an opportunity to get a broad foundation in core subjects that would then be supplemented later on with continuing education as he has gotten into new specialties. One of the benefits of the Flexible Education System is that the units would be very small. And to the extent that his job responsibilities change, or his interests change, he'd be able to go back and take a very small unit, and be able to learn material relevant to that particular context. But in the meantime he'd be able to take the generalist track, and get the required core subjects that are being identified now by a Task Force.

MS. JUDY FAUCETT: I'm going to talk about FES, as opposed to FEM. One of the first things we did in evaluating the FES and FEM proposals was to put together an implementation plan. We agreed upon a three-phase implementation. The first step would be to implement series 100 which corresponds to Parts 1 through 5, and EA-1 for 1987. The Board, at its May meeting, approved the flexing of Parts 1 through 5 for 1987. The second phase would be to implement series 200 through 600, which correspond to current Parts 6 through 10, for 1988. We are currently on track for 1988, and the Board has approved our plans thus far on the Fellowship examinations. The last phase will be to implement the FEM aspects of the program by 1989. One of the reasons for the longer time frame on the FEM aspect is that this is the area which we felt needed the most research, development and communication to the Society membership.

In order to develop our plan we had to make certain general assumptions: 1) No minimum hours would be required at any one examination period. If a student wants to take one hour of examination at a time, he or she may do so. 2) The credit for any particular examination should be appropriately related to expected study time instead of to the length of the exam. The ideal would be for the study time and the length of the exam to be closely tied together. 3) We reserve the right to limit vitality on Associateship or Fellowship courses until that particular designation is attained. The first thing to remember here is, just as with our current transitions, once you have achieved a particular designation you do not lose that designation. If you take too long going through the Fellowship courses, and perhaps lose some course credit there because of the vitality issue, no one can come back and take away your ASA designation.

The vitality issue is very similar to what you see in normal university course work. When you matriculate, a course of study is established for you, and as long as you complete your degree within a reasonable period of time, generally somewhere in the range of four to seven years, the university says that it will honor the credit you received from those courses. But, if you take instead fifteen or twenty years to get though the courses, and the content of a particular course or the field in general has changed substantially, it reserves the right not to give credit for what may be outdated courses. You must take revised courses that demonstrate the currency of your knowledge. This is what we're trying to get across in the vitality issue.

Some areas where this is particularly important would be, for example, the field of pension legislation or taxation. These areas are constantly changing. We also want to continue our coordination with the joint sponsors. The CIA and the CAS have been involved with the FEM Steering Committee and have had input into, as well as communication about what we are doing with this particular project. This implementation process began February 1986.

With something as significant as a major change in our education and examination structure, communication is vital. Much communication is going on and will continue to go on as we refine this process and develop further details. I think a good example of this is that we sent out the White Paper in the orange cover some months ago and very recently you received, or will receive soon, an update of that showing the comments that we got on the White Paper and a status report. This gives you an idea of the kinds of comments we received and what we have done to date, even in areas that were not specifically addressed by those comments. Also, we are planning to have another session at the October Annual Meeting as part of the program. That session is, again, going to be another open forum. We will give a status report on the progress that we have made, discuss some of the recommendations or issues that are evolving at that point in time, and again give you the opportunity to ask questions related to your specific concerns.

In the White Paper there is a prototype. You have to remember that it is a prototype -- that is, not necessarily the way the course structure will look once it has been flexed. The goals of the White Paper prototype were:

1. To reproduce the 1985 syllabus.

2. An arrangement that gave us minimal transitions. Just as students do not like transition periods, the E&E committees do not like transition periods, Society staff does not like transition periods and probably your employers don't like transition periods. We wanted to save ourselves as much grief as we possibly could and minimize the transition.

3. To simplify the organization, not just of the examinations but of our E&E committees as well.

4. To provide for flexible education, other means of educating and training our actuaries.

There are two differences between this prototype (Table 1) and the prototype in the White Paper. The first is that Section I of EA-1 has been added to this prototype. You can take either course 140, which is compound interest, or 141, which is Section I of EA-1, to receive credit for the compound interest course on the ASA syllabus. You can actually take both of them if you want to, but you're only going to get credit toward the ASA designation for one of them. That's the only option that will exist on the ASA syllabus for 1987. The second change is that down at the very bottom we've added course 17X which identifies additional topics that we may choose to add in the future. There will be no additional topics added for 1987. We may see some in 1988 or 1989.

TABLE 1

1987 FLEXIBLE ASA SYLLABUS

Course Number	*Description*	*Flex Units*	*Type*	*Current Hours*
100	Calculus and Linear Algebra	30	Required	3.0
110	Probability	15	Required	1.5
120	Statistics	15	Required	1.5
121	Applied Statistics	15	Required	1.5
130	Operations Research	15	Elective	1.5
135	Numerical Methods	10	Elective	1.0
140	Compound Interest	10	Required #+	1.0
141	EA-1A	10	Required #+	
150	Life Contingencies	40	Required #	4.0
151	Risk Theory	15	Required #	1.5
160	Survival Models	15	Elective	1.5
162	Principles of Construction	10	Elective	1.0
165	Graduation	10	Elective	1.0
17X	Additional Topics to be Added	?	Elective	
	Total	210		20.0

\# Credit for this course may be obtained by examination only.

\+ Either 140 or 141 must be passed by examination; credit may not be counted for both 140 and 141.

The syllabus is established for 1987, although we really expect that it's going to be an evolutionary process.

One other change for the 1987 syllabus that is not reflected in the prototype, or the White Paper is: Courses that are labeled 110 and 120, probability and statistics, respectively, are going to be combined into one 30 unit examination for three hours, which will exactly parallel the current Part 2 examination. It really wasn't viable to split those into two separate courses.

Much of the work that is currently being done on the FES structure is being done at the Fellowship level. Table 2 shows how the current Parts 6, 7 and 8 could be broken up into a Flexible Examination Structure. Four task forces are now working on the Fellowship tracks. One group has been focusing on what the core courses, which will be required of all actuaries, are going to be. To date we have defined seventy-five units of core courses. The first course will be a 50-unit survey which is very close to the Part 6 survey. It will cover elements from Part 6 and some basic insurance and employee benefit topics that are now on Part 7. The other core course will be a 25-unit course covering corporate finance and investment management. Other courses will be available at the general level but will not be required.

TABLE 2

FES PROTOTYPE - SERIES 200-400

Course Number	*Department*	*Description*	*Units*	*Current Syllabus*	*Current Hours*
210	--	Investment management	20R	8	2
215	--	Macroeconomics	20E	8	2
220	--	Corporate finance	10E	8	1
300	--	Survey (philosophy/intro)	50	6	5
L400	LIFE	Pricing & valuation	15	7I	1.5
L405	LIFE	Reporting, tax & law	15	7I	1.5
L410	LIFE	Pension for life majors	20	7I	2
P400	PENS-CAN	Valuation & regulation	30	7P	3
P400	PENS-US	EA-2	30	7P	4
P410	PENSION	Life for non-life majors	20	7P/10I	2

Initially, we will support the three specialty tracks that we currently support -- group, individual and pensions. Table 3 shows the split on 9 and 10. You'll notice we're actually showing four departments -- group, health, life and pension. The decision was made to put group health into the group line and individual health into the individual line. Thus, group, individual, and pensions would be the three specialties that we would have for 1988 and 1989.

TABLE 3

FES PROTOTYPE - SERIES 500-600

Course Number	*Department*	*Description*	*Units*	*Current Syllabus*	*Current Hours*
G500	GROUP	Design, marketing, selection	20	9G	2
H500	HEALTH	Design, marketing, selection	10	9G	1
L500	LIFE	Design, marketing, selection	30	9L	3
P500	PENSION	Design, legislation, consulting	30	9P	3
G600	GROUP	Pricing, reporting, valuation	20	10G	2
H600	HEALTH	Pricing, reporting, valuation	10	10G	1
L600	LIFE	Pricing, reporting, valuation	30	10L	3
P600	PENSION	Valuation, reporting	30	10P	3

Under the first course that's listed we show G500 being design, marketing and selection. The way that we're moving right now, it's likely that design would be a separate course, marketing would be a separate course and selection would be a separate course. We're really breaking courses down into more focused, unified pieces so that they really can stand alone. One of the benefits we see in this is that CAPP (Conference of Actuaries in Public Practice) is looking at ways to meet its continuing education requirements. CAPP sees the Fellowship courses, because they are broken down into individual topics, as a way of helping actuaries to meet their continuing education needs. If actuaries need to stay up on pension legislation they can take the current Society course on pension legislation and qualify for continuing education.

The current prototype is structured so that the ASA designation would require 200 units from series 100. These 200 units could include both required and elective courses. The Fellowship designation is defined as the ASA designation plus a total of 270 units. Since what we will implement will not be exactly the same as the White Paper, this particular definition of Fellowship is subject to change over the next year or so.

We have three tracks that we're going to support. We have had comments from the membership that we should consider both a generalist track and perhaps an investment actuary track. We will definitely be considering this, but not within the 1988 time frame. We're going to start with the three tracks that we currently have, and from there will evolve additional tracks. Are there any questions about the structure?

MR. JAMES R. BRAUE: There has been, in recent years, some erosion of the common body of knowledge due to changes in the exam syllabus and in the treatment of certain subjects. Talking to people who are just a year or two behind me on the exam track, I find that we are not speaking the same language with respect to certain subjects. When we introduce these elective courses, and I understand that the number of them will greatly expand in the future, how likely is it that we're going to introduce a communications problem into the profession? If we don't have the same background, how much of a problem is that going to cause?

MS. FAUCETT: We already have that to some extent. Students are currently taking a specific track on Parts 7, 9, and 10. So we already have that first inroad into not having the same common knowledge among all actuaries. I don't think this elective approach is going to cause a significant erosion from that standpoint. I don't think it will be possible, for example, for someone to meet all the requirements for the Fellowship designation by strictly taking courses within the individual or the pension line. The focus is to give everyone a strong basic background so they at least know the basic terms of communication and have a background knowledge in all of the areas. Someone would not present himself as an expert in a particular area without either having gone through that particular track or doing additional work on his own. We recognize that that is a problem. Part of that problem is one of continuing education for our existing Fellows, which is not something that I'm necessarily advocating. Yes, it is an issue and it's going to have to be one that we're all going to have to be comfortable with in the final structure of the fellowship examination.

MR. LAWRENCE DYKSTRA: I'm wondering about the vitality issue, and the seven year period in which you have a chance to get your Fellowship or else you have to start over again. Is it safe to assume that there will be a transition period for those of us who maybe have an exam or two at the onset, that we got quite some time ago? Will we have seven years from the time of the transition to complete our Fellowship?

MS. FAUCETT: Those issues are currently being addressed by the task force. We've got four task forces that are looking at defining the various fellowship tracks. We've got another task force that is looking at the issue of pass mark standards. We have another task force that is looking at the issue of vitality. Our hope is to have a preliminary recommendation on that issue put together by sometime this summer for review by the general officers of the E&E Committee and the Education Policy committee of the Board. I can't second guess what this committee is going to recommend and I don't want to bias or prejudice its recommendation in any way. The comments you make addressing your specific concerns will be passed on to the task force, so that students do not feel they have had something thrust upon them without adequate time to change the way they view the examination structure. The intent is not to develop a whole new examination structure, so those of you who already have credit for Fellowship examinations no longer have credit for Fellowship examinations! You would at least be starting from where you are.

MR. MURPHY: It might help to remind the task force of what you said before: the primary goal of the vitality issue is related to material that becomes out-of-date at the time you would be giving the designation. That also will help protect topics that are not changing so fast.

MS. FAUCETT: For example, say Part 6 is the examination for which you have credit. Since it's a very basic introductory examination it is harder for that material to become obsolete than perhaps some of the topics that are covered on Parts 9 or 10. For more general examinations it's hard to imagine that we would be restricting the vitality quite as much as we would on the higher level examinations, where you are into a very specific track and the need for current knowledge is very important.

MR. GEORGE G. MORRISON, III: How did you go about determining which courses should be required versus elective? Do you see in the future, when you add more courses maybe instead of having 200 units for Associateship making it 250? You can relate this back to my first question: if you have 50 courses and you need to get 200 credits, what's the kid who wants to be a generalist to do? He's twenty years old and doesn't know anything; how is he going to choose the courses?

MS. FAUCETT: Most of you have now determined that actuarial science is an oxymoron -- it's actuarial art as opposed to science. This is the way that we determined the required and the elective courses. A course such as life contingencies or compound interest is definitely a required course. The general officers had extensive discussions, as to what was required for actuarial education, what needed to be in that common core of knowledge and what was really elective. What you see in the White Paper, and coming out over the next couple of years, is the result of extensive discussion. We also take issues to the Education Policy Committee of the Board, and that committee goes through the same debate as to what should be the common core and what should be elective. After the Education Policy committee has acted on it, it's presented to the Board, again. It's an evolutionary process that has gone through different levels. We've also received specific comments from the membership as to what they think required courses should be. It's basically a synthesis of all of those.

MR. HUNTINGTON: With respect to the second part of your question, I think it's unlikely that we would ever extend the number of required courses for Associateship significantly in terms of the number of units. The prototype has 200 proposed units and I think we'll stay in that 200 range.

MS. FAUCETT: We do not want to increase travel time to achieve any of the professional designations. That concern has been raised by everyone within the E&E structure, by students, by employers, and by the Board. To significantly increase the number of units could only be perceived as increasing travel time. So we're trying to be sensitive to that issue.

MR. FLOYD R. MARTIN: I see a potential for 25 separate exams between Associate and Fellow. My question is, what is the anticipated offering of exams? Do you anticipate people sitting for several exams during the same exam period? Instead of studying for one exam, studying for several, and still studying the same amount of material each exam period?

MR. HUNTINGTON: The exams would be offered the same number of times a year that they are currently offered. If an exam is on a bi-annual system it will still be offered twice a year in the future. If it's on a once a year system it would be offered at least once a year in the future. We now offer exams twice a year, in May and November. The proposal that we're looking at would offer perhaps four or five administrations during the course of the year. A student who wanted to could take the exams in somewhat smaller units, but he would take exams frequently during the course of the year. There would be a February administration, a May administration, an August administration and November, for example. As a step towards that, in 1987 Part 1 will be offered three times. We're going to offer it in February 1987 as a stand-alone exam as well as in May and November. If that's a success, we'll see if we can expand the number of times each of the courses will be offered. The goal is to give you a chance to organize your time around exams so that you can take the exams in a logical sequence and still achieve your Fellowship or Associateship in the same basic time frame you're using right now.

MR. RICHARD L. SUTTON: Do you think that would extend to most of the Associateship level material?

MR. HUNTINGTON: For Associateship material the vitality issue is much less of a concern than it is on the Fellowship level. I can't imagine that, at this point in time, a situation where credit for Part 1 would be lost on the vitality basis. I think that would be very difficult to have happen. I think it is possible that in an area like risk theory that there might be some developments in the mathematics that underlie risk theory which would mean that it might not be vital for a long period of time. There may be ten years from now risk theory concepts that we don't have any understanding of right now. If you look back, statistics didn't basically exist as a subject matter 30-35 years ago. We've had a great of development there. There may be other developments in some of the latest mathematical subjects.

MR. JEFFREY L. LOFLEY: When I read this proposal I thought that the most exciting part of it was the possibility of having exams offered more than twice a year. What is your feeling regarding the time frame that it might take for perhaps the entire syllabus to be on a multiple per year offering?

MS. FAUCETT: I think it's possible that we could be there by 1989 or 1990. We might even be there by 1988. When we get all of the courses defined, then someone in the Society office will sit down and map out an examination calendar. We may decide that we need more frequent exam administrations than what we currently have. Alot will depend on what comes out of those Fellowship tracks, and how they fit into an examination calendar structure.

MR. HUNTINGTON: Also, in 1986 we are offering Part 8 twice, partly to move it from a spring to a fall exam, and also to give us a way of testing how to administer that exam more than once. We will see what the administrative problems are. So we've got some tests going on right now.

MR. DARRYL G. WAGNER: How will the breaking down of the exams into pieces affect the grading or the difficulty of each piece? As an example, during the recent transition of Parts 4 and 5, I was in a position to take 4A by itself, which would be comparable to the interest theory piece that would be created. Out of 12 people taking the exam, 11 passed. This is quite a bit higher, I think, than the current pass ratios.

MS. FAUCETT: It just goes to prove that when students are well prepared, the passing percentages can go up.

MR. ARTHUR L. WILMES: I have two concerns. As I understand it, someone still taking exams may lose credit for something they've taken and passed because the material becomes obsolete. What's the logic of doing that to someone who hasn't finished the exam process, as opposed to a Fellow who may not have even had the topic or may have gone through three transitions before he finished the exams.? Why are we penalizing someone still taking the exams when that occurs and not someone who's finished? It seems inconsistent.

MS. FAUCETT: It's not inconsistent with our past practice. Whenever we have had transitions in the past where we have recombined topics, people have gotten partial credits and have had a two or three year period to complete their credit for the rest of those parts. We're not saying you are definitely going to lose credit for the exams that you have taken. It will depend upon how those particular topics have changed over the years and on how long it takes you to complete your Fellowship requirements.

MR. MURPHY: A little philosophy behind this: It relates to your position between the people taking exams and the people who are already Fellows. Taking the exams, you're moving toward designation by the Society as a new member of that organization, at the Associateship or Fellowship level; let's say at the Fellowship level because that's where this has the most bearing. We are saying, when we designate you as a new Fellow, that as of today you have met the standards of the Society and those standards are intended to be current standards. We don't expect people writing exams to be taking continuing education work for professional purposes. Once you become a Fellow you have an obligation to maintain the currency of your knowledge in order to be a professional. The point is that, at the time of designation, we're saying that you are an up-to-date, brand-new Fellow. It's important that the subject matter we've given credit for, to attain that designation, is reasonably current.

MR. WILMES: My second question is really informational. Since it appears that the Canadian Society has been operating such that they are giving credits for college courses, how are they developing consistency? Coming out of an actuarial program in college, and taking exams to work up to my Associate level, I took all the courses for an ASA designation when I was in college. However, I don't feel personally that I had enough preparation at that point, or the intense training needed, to pass the exams. I question the consistency of standards between universities.

MR. HUNTINGTON: The Canadian Institute has not gone beyond what the Society of Actuaries is doing. Within the Canadian system they are using the Society of Actuaries exams, and they're taking our pass standards. They have not yet done any alternative credits. The university programs in Canada are involving the Society exams and the Society exams must be passed to get credit in the Canadian Institute.

MR. WILMES: Is it also part of the requirements for graduating from the University?

MR. HUNTINGTON: No. The university has its own standards. If you take a program you must pass the Society exam to get credit in the Society; you must pass your course work to get a degree from the university.

MR. MURPHY: FEM is Future Education Methods. In May, the Board did not take any approval action on any FEM concepts. It did pass a resolution that relates to FEM concepts, stating that the Board believes Future Education Methods concepts may have potential for significantly improving the educational process. Committees working on this developed specific proposals that could be reviewed by the Board in October of this year, and then distributed to the membership for additional comment. One thing we also did for the Board when it met in May, was give them a summary of the responses that we received from the White Paper. Most of the comments tend to relate to the FEM side of the White Paper as opposed to the FES side.

Table 4 is a summary analysis of 83 responses received from members of the Society, Associates and Fellows, broken down into three categories: established Associates and Fellows, recent FSAs, and recent ASAs. An established Associate is an ASA who is now a career professional but has not gone on for Fellowship.

TABLE 4

FES/FEM WHITE PAPER RESPONSE

General Reaction to Flexible Education Proposal
(Received by April 28, 1986)

	Respondent Category			
Response Category	*Established ASA and FSA*	*Recent FSA*	*Recent ASA*	*Total*
Positive	12	7	0	19
Cautiously Positive	18	8	6	32
Concerned (Worried?)	5	4	2	11
Negative	9	8	4	21
TOTAL	44	27	12	83

You can see a difference in attitude by grouping with the established group very positive overall. 30 out of 44 established Associates are positive toward the proposals. As you move on to people who have recently obtained their Associateship or their Fellowship, the support becomes less positive. But even for the recent Associates, half of the respondents were positive or cautiously positive. From a certain perspective the fact that people comment positively about something is good because usually people only take the time to write when they're negative. We did receive a very large response of positive, as well as negative replies. We're very pleased with this.

Table 5 summarizes concerns expressed by some of the respondents. These are not mutually exclusive totals. We will now refer to AEC for college courses (AECCC) as AEC-cubed. We summarized the typical letter based on all comments received. Essentially, the message we're getting from the people is that there's general support for implementation of FES, the Flexible Education System. They favor flexibility in the examination structure. They express concern about adopting AEC-cubed. And they urge that care be taken to maintain standards and treat candidates fairly. In development and implementation of any issues, it is important that we keep in mind the comments that we have received and continue to receive from members in our on-going communication efforts.

TABLE 5

FES/FEM WHITE PAPER RESPONSE
Concerns Expressed by More Than Ten Respondents

Frequency	*Concern*
49	Uneasy about AEC for college courses
24	Credit should be granted for exams only
13	Disagree with proposed time limit for ASA or FSA (general OR specific limit)
11	FEM/FES could lower standards, lessen value of FSA

Let me quickly take you through a summary of what we mean by FEM:

One of the two task forces working on this was the technological task force looking at new technologies and how they might impact the educational process and methods. The first two items in Table 6 are software packages which can be implemented without FES, and are being worked on by the Education Committee.

TABLE 6

FEM CONCEPTS - PHASE III

Technological Task Force Recommendations	*E&E Assignment*
Minitab (Parts 2 & 3)	Education
Microsolve (Part 3)	Education
Compuserve Drills	FEM
Compuserve Pass Lists, etc.	Exam (+ Doherty)
Management Simulation	FEM

Compuserve Drills allow students to share, through that time-sharing facility, drill problems that they may develop on their own. Anybody with access to that system would be able to work on other people's drill problems and provide drill problem as well. We also are working on using the Compuserve system to publish the pass lists for each exam sitting. If you have access to the computer you won't have to use the phone or wait for the list to get mailed out. The final area that the technology group reviewed is something called management simulation, management games. These are computer program systems that allow you to get a feel for the management decision-making process of an organization. We think this has a lot of potential, perhaps in some kind of seminar environment that we might add to the Fellowship syllabus.

There was also a traditional task force looking at traditional modes of education (other than pure self-study). It came up with a number of concepts, including:

1. Acceptance of equivalent credit. (AEC)

2. Research papers, another form of equivalent credit.

3. Seminars: Two specific seminar topics they pointed to are ethics and law. You can't really learn the concept of professional ethics by reading the guides. You need a hands-on discussion and case study kind of approach.

4. A finishing course: This might be the kind of course utilizing management games and case study work, and it might be quite an intense seminar that would better prepare you for the "big picture" questions.

5. Seminars in general; sponsored by the Society, and perhaps by other organizations, too.

6. A desire for greater involvement with the universities and better use of the facilities they have to support our education system. We want a well-educated profession that is prepared for the future.

7. Tutorial kits for various courses available to actuarial clubs, companies, etc.

8. This task force felt that the pension syllabus needed work, and that is being worked on by a separate task force of the E&E Committee.

9. There was a feeling that maybe we have attached too much importance to study notes, and that we need to move back to original source material. The Education Committee is looking at how this might be done.

Not all of the FEM concepts are necessarily in the FES environment. But most of the valuable FEM concepts that we saw would be far easier to implement in the FES environment.

There are several forms that acceptance of equivalent credits can take.

1. AEC-cubed is the form that gets the most attention. This would be somewhat limited.

2. Other professional exams may be used. The CFA, the CLU, and Home Office Life Underwriters are examples. I think it's the Academy of Life Underwriters that does the exams for the last group. Some of their material and exams are far better for certain topics. Judy mentioned that selection of risks might be a separate course. The material in the Academy of Home Office Life Underwriters may be better and if someone has actually gone through that course work and passed an alternative professional exam, couldn't we give credit for those exams in our selection course? It certainly would be a valuable approach to take.

3. We may want to provide, at least on an elective basis, credit for exams offered by other actuarial bodies such as the CAS and the Institute of Actuaries, particularly if we're going to have a generalist track. A really well-rounded generalist might have some exposure to casualty topics.

4. Society-developed seminars would have to go a step beyond the support seminars of the past, and a step beyond the kind we now do on a continuing education basis. Whether they would have exams or not is one question we have to study.

5. Academics may find research papers to be a valuable means of equivalent credit, working toward their doctoral programs and their FSA simultaneously. Perhaps some portion of the Fellowship syllabus could be granted credit for completion of a related extensive research paper. We're talking about PhD thesis level research papers. It would be a significant refereed paper.

MR. HUNTINGTON: Of course, another benefit of research papers is that these would also enhance the study material available for education purposes. The intent would be to give credit to one person, and also to enhance the literature for all actuaries.

MR. MURPHY: The Research Committee likes this idea. AEC is a lot more than college courses. The concept of AEC is that if these areas into the education we're trying to ensure our people have, why not give credit toward our requirements for that alternate education?

We have been doing a lot of work in this AEC area and particularly the AEC-cubed area because we know it is a concern. We established some postulates around which the task force must build any proposals in the Future Education Methods, and particularly the AEC-cubed, area. These postulates apply to both FEM in general and to AEC. We developed these in the Steering Committee. They were reviewed by the general officers and by the task force, and modified as a result. They were then further modified as a result of the comments we received on the White Paper. This is their current status:

1. We are looking for proposals that produce superior educational results. That goes back to our primary goal.

2. We are seeking to enhance the value of Associateship and Fellowship. We won't do anything that doesn't meet that criteria.

3. We must maintain the standards of Associateship and Fellowship. The two specific points under this item reflect a strong feeling by members that Society exams form a significant measure of standard and equity. So, any overall proposals involving FEM and AEC, and the resulting requirements for Associateship and Fellowship must require a significant proportion of Society of Actuaries exams. Further, credit for key actuarial courses must continue to be obtained only through Society of Actuaries examinations. Thus, we maintain the standards and the equity through a major proportion of the requirements, yet provide some flexibility for other educational methods within the overall requirements of Associateship or Fellowship.

4. We will seek not to increase travel time.

5. We will include substantial SOA screening exams. Part 4 serves that function at the Associateship level. We want to have a couple of major exams covering significant material within one sitting, as another element of testing and education.

6. We will spend more money if we get more value.

7. Volunteer leadership is important to the Society. We don't want a separate entity outside of the Society becoming the controller of our education system.

8. Finally, it is very important that we continue cooperating with our joint sponsors.

We also developed some criteria for this task force as they were asked to look at AEC-cubed first, the most controversial issue. We developed a set of three required selection criteria in choosing courses that might be eligible to obtain credit. Our initial investigation deals with the courses in the Society syllabus that are primarily background knowledge -- basic math, economics, etc. In addition, background courses that would be considered for AEC-cubed must either provide for superior education methods, or areas where others are experts. An example of the former is applied statistics, which we believe is far better taught in a classroom or "hands on" setting, using a PC and working with actual examples, than by reading our textbook and taking our test. Other examples are operations research and finance. These are topics where actuaries aren't necessarily the experts. Demonstration of college work in an area where others are experts and are teaching the courses would be a valid alternative credit.

The task force is working now on a draft prototype of a first phase of AEC-cubed. It involves Parts 1 and 2 only. One would either learn of the actuarial profession in college, or finish college and learn of the profession. Within some reasonable time of completion of college courses, for which an individual thought he ought to get credit from the Society, he must apply for conditional credit. This credit must be based on an accredited university in the U.S. or Canada. He must have gotten a "B" or better in the courses. He will have to pay a fee for getting credit just like he would have paid a fee for taking our course -- probably a larger fee, because the administration of the AEC obviously costs something. He must validate this conditional credit by demonstrating to us that he is capable, and of a legitimate quality, to receive credit for Society exams, by passing one or more Society exams, depending on what courses are involved.

If students are only asking credit for Part 1 or just Part 2, then they must subsequently pass, within a reasonable time of application -- I think it's within two years in the current prototype -- a higher numbered exam of at least the same number of units. They must get 30 units from higher numbered courses within our syllabus through Society exam passing to validate that 30 units of Part 1, for example. If they want to get credit for both Parts 1 and 2 they have to get 40 units of Society examination credit in the current prototype. We're not going to formally recognize them as having credit for any of our syllabus until they have successfully completed examinations within our syllabus. We think this has potential to protect standards. Students also can't ask for equivalent credit for one of our exams that was taken and failed. That gives you a rough idea of where FEM, AEC and AEC-cubed are right now.

MR. BRAUE: While AEC-cubed is new in terms of our actuarial education process, similar ideas have been applied in other contexts. For example, my own alma mater, the University of Connecticut, has had a program for many years where it offers college credit for accredited high school courses at an upper level. I was wondering if any study has been performed or planned to look into how such programs are administered and how satisfactory the results have been?

MR. MURPHY: To my knowledge, that has not been done. But that is an interesting idea that I think we should pass on to the group working on this. I was aware that was done in some areas. It's possible that somebody who has done this for awhile would have some experience worth looking at.

MR. JEFFREY R. SCHUMAN: I've noticed that the goal involving travel time has been worded very carefully to say "not to increase travel time." Is that to say that we're holding open the possibility of decreasing travel time and if so, how is that going to be viewed by people who have perhaps taken a longer time to go through the syllabus?

MR. MURPHY: In the context of FEM and AEC we probably are seeking to decrease travel time as an offset to the possibility that FES increases travel time. There are two givens that we have to deal with when dealing with the travel time issue. One is that we want to seek not to increase it, or potentially offset any other areas that are increasing it with a decrease. We also do not want to reduce standards. I did a ledger on travel time. It looks at the whole package of FES and FEM. One way of potentially increasing travel time is the addition of more courses. Students may choose to take them in small pieces, one at a time, and even then, this could conceivably take longer than the current structure. The other issue that may increase travel time is that of maintaining standards. The ultimate in terms of increasing travel time would be the concept that the pass ratio on each little piece must be the same as the pass ratio on the big pieces. If you think that's true, you can see that that's going to lead to tougher standards in a sense, or at least it may take longer to get through.

But we also see a number of things that might decrease travel time. The electives will give students the ability to take things that may be of more interest to them, or may relate to topics they've covered already. Therefore, they might finish quicker because they'll be better prepared. We hope to define some tracks. We were talking about students who don't know what to do because there are so many choices. We hope to provide some guidance and definition. I think that will help focus students, and should help decrease travel time. AEC itself, by eliminating the need to take some exams because you've already demonstrated a knowledge level in those areas, cuts into the travel time issue and helps decrease it. If we give courses, maybe not every course, four times a year, you can take them in smaller pieces and still get four of them out of the way in a year. That will help to reduce travel time. Finally, while the discussion on vitality has been related to the question of keeping up-to-date it also has the effect of a "stick and carrot" to keep you motivated to finish as fast as you can. That will help decrease travel time.

MR. HUNTINGTON: The issue of pass mark standards is one of the areas that we have not yet found an answer to, particularly on the Fellowship level exams, after we go into a FES environment. Clearly we have a given that we're working under. We want no reduction in standards to meet the needs of the members, as well as the E&E Committees. But we recognize that the units themselves will be different. They are potentially going to be smaller and they may, therefore, be perceived as easier. We don't quite know, and we won't know until we actually implement this, what students will be taking. Will they be taking only one unit per sitting or will they be taking, for example, the three parts of Part 3 and just creating a Part 3 exam for themselves? That option is there. But maybe they will be taking only single sections. The art that Judy talked about for actuarial work is also the art of setting a pass mark. We do not have an absolute standard for setting pass marks. We look at a number of issues and a number of criteria. In broad, general terms our options available for pass mark standards in the FES environment include using the same pass ratio. If we currently pass 42% of the people we'll continue to pass 42% of the people. That doesn't strike us as particularly fair or reasonable. We could have the same basic absolute score that we're working through right now. If we have an absolute score coming through of 60 on an exam, everybody who scores above 60 would pass, everybody who scored below would fail. But our pass marks tend to vary because the degree of difficulty of the exam itself varies. Sometimes it's easier, sometimes it's harder. In addition, the student population that we are looking at tends to not be a very large group, particularly in the Fellowship level exams. In our current structure, on the Part 9 and 10 level where we have primary and secondary and national splits, we can have units that have four or five people or, have twelve people who wrote the 4A exam, eleven of whom passed. I think what we're looking at in terms of the pass mark standards, and what the task force has been asked to do is come up with a modification of the two basic criteria, the pass ratio and the absolute score, and to look at some way of bringing those two together. I believe that we will eventually look at the candidates who are writing the exam not only in terms of how they're doing on that one exam, but also with some awareness of how many other exams they're writing during the same week. We'll use the computer facility to determine if they are writing three or four hours of exams, or writing a single one hour exam. If the performance is such that people are scoring 80s and 90s, I think that it's reasonable to pass everyone who gets an 80 or 90 on an exam if the exam is well constructed. That might lead to a higher pass ratio. But if you have a person who's writing a series of exams with other people, we need to be cognizant of those two different characteristics. For example, a minimum grade point average is one possibility. We might set pass marks requiring that, to become a Fellow, you have to have an overall grade point average that might be higher than six. If you squeak through a bunch of exams with sixes only, that might not be sufficient to pass. This is similar to a college concept where you could have an overall score of seventy, but this may not be sufficient to get your degree. The answers are not here right now. One of the reasons we're having these open forums and writing letters is to get your input as to how to best approach that.

The view of the Board, the Educational Policy Committee and the E&E Committee is that what we're proposing in a FES environment certainly can be done, and that what we can deal with in terms of FEM is also possible. We have a tight schedule. We are targeted to do a FES exam system for 1987 for Parts 1 through 5 and the EA-1 exam. For the other exam portions it may take one more year. But we are on schedule for implementing a full FES for 1988. It's important that we get continued support from the Society staff professionals. The challenges that we're facing are a significant opportunity for us to improve the educational content of our profession. We can make better use of educational methods which have been developed since the time of self-study. The value of the FSA will be enhanced as a consequence of this activity.

Additional Questions from the San Diego FES/FEM Session 34 (April 1986)

MR. MARTIN H. SMITH: I'm curious about the EA-1A. Right now you can't even take that as a separate exam. How does that correspond with what you have up there?

MR. LINDEN N. COLE: It's our understanding that from 1987 on, the Joint Board will be giving EA-1 in two segments. Is the 1987 date correct?

MR. HUNTINGTON: The last time the Joint Board met, they decided that the EA-1 exam would be permanently split in 1987. That is always subject to change but right now we understand that to be accurate.

MR. CLIFFORD A. LANGE: Am I correct in assuming that acceptance of equivalent credits would only be allowed for Parts 1, 2 and 3 at a maximum?

MR. COLE: No, that really hasn't been decided yet.

MR. WILLIAM H. WILTON: In regard to the criteria of "others are experts" and "background knowledge only" for AEC for college courses, if the exams were properly designed, couldn't you still accomplish that, rather than deal with the inequities among universities across the country?

MR. MURPHY: I suppose we could. It seems we will help ourselves with some other problems if we don't seek to try and maintain the same system all the time. We're concerned about travel time. You could say the experts wrote the book, if you want to go that way, but again, it may be that experts teaching in a hands-on, one-on-one or group relationship are still giving you a better education. If you've gotten that education, why should we have to test you on it again? As long as we maintain, within the total structure, some good solid screens and standard base exams, we can be sure that the quality of the people coming through the system and receiving our degrees meets our standards. They don't necessarily have to go "through the wringer" for every single course to demonstrate that they are quality actuaries, but we need to know they have certain knowledge. Demonstrating that knowledge to the college is probably sufficient for some of these courses.

MR. RICHARD J. BARNEY: There are many grades of quality in law and medical schools across the country, but through the board exams they test the students in such a way, as with Parts 4 and 6, to assure that, whatever quality education you had coming into the exam, you have picked up the prerequisites that the profession requires.

MR. MURPHY: One other related comment: For a given student going through a system, as I envision it, 4 and 6 wouldn't necessarily be the only exams he ever takes from the Society. It is very likely that any proposal on AEC will impose a limit on the number of courses he can obtain credit for via the alternate route. There will be some limit because we want to use our courses in a majority of areas. But AEC will still help with travel time; it will encourage students to get some education in areas that we think of as positive at the college level, yet not to go so far as to minimize our overall standards within the final, total picture of who gets FSA.

OPEN FORUM

MR. CHARLES H. SILVERSTEIN: For current exams, there is about a 40% pass ratio. If you're allowed to get college credit instead, do you still expect to see the same kind of ratio of acceptance?

MR. MURPHY: It's going to be hard to evaluate a pass ratio for those people who apply for equivalent credit unless we look at the universities. Again, in giving equivalent credit, it may not be a matter of just passing a course, it may be the level at which you passed the course and it may be the nature of the course that determines accreditation. But in terms of looking at it in a pass ratio sense, it's very difficult to translate the AEC concept into a pass ratio.

MR. PETER GORHAM: If the AEC does get implemented, particularly for Basic Math and Economics, is it intended that these courses would replace Society exams, or would we continue to offer exams for people who couldn't get to an AEC?

MR. MURPHY: I would assume that we would continue to offer exams. If we have a course on our syllabus, we'll have an exam for it or it will be a course that is given by seminar or some other means. Individuals who meet certain requirements could get credit for a course, up to the limit that we have provided in the system. Certainly Part 1 is a key exam. There are some people that have gone to a college we can't accredit, for example, and we will still need the exam, but perhaps there wouldn't be as many people taking it.

MR. JOHN C. R. HELE: To what extent have you considered incorporating certain of the later exam topics in a MBA setting? For example, a case study approach using examples and perhaps incorporating this study as part of some MBA program. There are MBA programs with insurance specialties that are coming into the actuarial realm.

MR. MURPHY: Maybe that's down the road. I think we'd have to take a careful look at those programs. We do have a goal to make better use of the universities. I don't know if there are any programs today that would give us adequate, comparable education. We might want to do something like that on our own through the finishing course concept. Some of the material that is currently in the 500-600 series courses, as defined by the prototype, perhaps would evolve into a finishing course seminar rather than the current course that's described in the prototype, and the case study concept would be used. It's possible we could do it ourselves and maybe ultimately go to certain universities that meet our requirements, and contract for it as well.

MR. DAVID T. MISNER: One of the problems with the current system is that you can take an exam and fail with a 4 or 5, and then have to wait another six months to re-take that exam. I know you're saying that you're giving consideration to the length of time necessary to get through the program, but there has been no talk about how often these courses are going to be offered. Also, is any consideration being given to the method CLU uses whereby you can take an exam via computer, and if you fail, go back and re-take it in another week or two?

MR. HUNTINGTON: The intent under the prototype would be to offer exams at least as frequently as they're offered today. The courses in Series 100 would be offered at least twice a year, the courses in series 200-600 would be offered at least once a year. One suggestion we're actively considering is the staggering of exams, having exam administrations occur perhaps four times a year, with some exams offered in February, some in May, some in August, and some in November. Smaller units would allow a student the opportunity to write some exams every three months. While exams might still be offered only once or twice a year, it would still mean there would be more opportunities to go into the system. With regards to the second question, in terms of the approach used by the NASD and the CLU for having exams on demand, where you can sign up for and write an exam in a very short time period on the computer, and get the exam results almost immediately, we actively considered the possibilities of doing Parts 1 and 2 on such a system within the 1987 time-frame. The programs which do that are designed and controlled by Control Data Corporation (CDC) in Minneapolis. When we started looking at it, the economics were such that they would have increased the exam fees on 1 and 2 by a modest amount, one that we thought was manageable in terms of the benefit created from it. But with recent financial difficulties at CDC, the repricing effective in 1987 represents a significantly increased cost for what is basically a recruiting exam taken mostly by students in colleges and universities. We think it is an unmanageable increase. We would like to make that effective as soon as possible but it's not economically feasible. The Part 1 fee currently charged is $30. The last time we looked at it, the economics available to us in 1987 indicate that we would have to charge a fee probably close to $150 to provide that service. That doesn't seem reasonable to us. So we've temporarily shelved that idea pending improvements in the computer marketplace. We'll continue to monitor that possibility. What we're going to try to do, in place of offering exams on demand, is to offer Part 1 and possibly Part 2 three times a year, starting in 1987. We would offer it in the February, May and November exam periods and we would have a special exam period established almost immediately in February for Parts 1 and 2. That would give at least one more opportunity to take the Parts 1 and 2 exams and be able to get immediate feedback. We need to make sure that we are able to produce results from the administration quickly enough so that the student who has failed is able to get back in and register for the exam that's occurring three months later. We're going to have to make some mechanical changes in the administration for this, but I think you'll start seeing opportunities to take those exams more frequently.

MR. SMITH: It seems you have a problem with the security and integrity of exam results when you have a system like that. How are situations controlled so someone else can't take your exam for you or so you can't somehow alter a diskette?

MR. HUNTINGTON: There is a security system that is potentially better than ours. When I have taken a CLU or a NASD exam, I must produce two photo-identifications, sign in, and supply information ahead of time that will appear on the registration form when I register for the exam. The chance of getting a ringer to go in and take your exam is not very likely in that context. CDC people are proposing, at this point, to release diskettes to learning centers, where you take the exams, and these are controlled completely by the CDC personnel. They're located in isolated locations, are completely under the control of the CDC personnel, and there is limited opportunity to access them. Under the current system, computer lines feed into a mainframe computer in Minneapolis, and the demonstrations that we have seen indicate that the system is quite secure at this point. CDC personnel are unaware of any tampering with their programs.

MS. MARY H. STONE: On the acceptance of college courses for the exams, it would seem that your goals are both to encourage people to take the courses, because they are a better way of learning the material, and also to shorten the travel time to ASA or FSA. But I have concerns about both the Society accrediting courses, and insuring that the standards are maintained uniformly with the wide variety of colleges out there. I would suggest that the Society encourage the university instructors to encourage students to take exams right after the college course. If students have gone through the course, and therefore benefitted from the education, by taking the exam shortly after the college course they should be prepared for the exam and pass it. That would shorten travel time. I think that's a good way to insure a uniform criterion is applied to everyone, in spite of the potential differences between college programs.

MR. MURPHY: I think we have to think about that issue. Our feeling is that, perhaps for some courses, we're going to have an opportunity to test anyway, particularly courses that meet the criteria of background. The adequacy of learning the topic, for example Calculus, will be pretty adequately tested when the student goes through some of the other courses. If they're limited in the number of courses they can take via the alternate credit route, without taking an exam, they're going to have to take some others that will test that learning. In cases where others are the experts, perhaps ultimately we don't even need to give the exams; but then, however, we have the problem of students who don't have experts available to them. We want to have a system that is attractive and maintains standards across the board. We're very aware of the concern about inequities between different programs. Accreditation is not a simple process, and if in the development of AEC we discover that we can't do it properly, then we won't. But if we think we can do it properly and put limits on applicability, we'll probably maintain overall standards and produce a total system that's more attractive to some students.

MR. GODFREY PERROTT: I'm the Flexible Education Chairman. The difficulty with the last speaker's comment is that it works fine for candidates that are in actuarial schools, or in non-actuarial schools that at least have focused on actuarial science as being a possible career path, but does nothing for people that might be coming out of engineering schools, or science or MBA programs, and don't think about becoming an actuary until after they've graduated.

MS. FIONA E. PINNT: 1987 isn't very far away, and there are still some questions on the implementation of Phase I. How certain is the implementation of the program?

MR. MURPHY: We'll have to see where we are when we talk to the Board on May 21st on that issue. The phase for 1987 is the simplest phase, the most straightforward, and will teach us a lot about what we have to do for the second phase. The key issue is: where are we going to be headed with the third phase, and that issue will be an ongoing discussion both in this type of open forum and with the Board and Education Policy Committee. There certainly are lots of questions. We're seeking to answer those questions. We've gotten some input expressing concerns, and giving us ideas on how to deal with some of those concerns. The FEM aspects are clearly not as well-defined as the Flexible Education aspects are, and that needs to be developed. The Board action will deal only with the Flexible Education System.

MR. HSIEN-MING K. KEH: It seems there is a bias toward encouraging people to go to college, since if you are working it's hard to study. If you go to college, you can take a course or many courses in one year, pass them and get a credit. If that's the case, we may have a lot of people coming out of college as ASAs, or more students who will have no business experience and may be demanding to have more interesting work. They would be inclined not to do so-called clerical work which is sometimes necessary to learn the business end of it.

MR. MURPHY: We probably are already getting more and more students coming out of college close to Associateship. I know in Canada that is clearly the case. I think that's a problem regardless of what we do here. It probably needs to be dealt with as we look at the structure of some of the other concepts, the seminar concepts, and other types of education that may still be required to help with the business skills that you're concerned about. One of our concerns in the Planning Committee about the value of the FSA relates to attracting people to the profession who have some business sense, and then providing training modules in the education system that may enhance those strengths. So there are ways we may be able to deal with that concern. It is a concern already, because the actuarial schools in the U.S. and Canada have been graduating more students with a greater number of exams.

MR. WILLIAM H. WILTON: Do you feel we are sacrificing the quality of our education by going to the Flexible System, where we are separating it into small unit credits? Someone, in theory, could concentrate two weeks prior to an exam and pass, without really understanding the material that was on the exam.

MR. COLE: Based on my experiences as a Part Chairman years ago and so forth, the answer is an unqualified no. There are some subjects which we presently test where, if you talk to the students that are passing the exams now, they really don't have a very good understanding. We're hoping that with the Flexible System, we can come up with better testing methods for a particular subject. In terms of the total screening of the system, since the number of credits you're going to be able to get by some other means is going to be limited to a percentage well under 50%, you still have to pass something like 70-80% of the present system in order to pass and those screens are going to be as difficult as they are now. So I don't see that there is any quality loss in terms of the final product, and hopefully we can get a better educated product.

MR. PAUL T. ROTTER: This kind of thing, of course, has been discussed for many years. One of the things that people used to worry about years ago was the notion that you can give credit for college courses. The courses you're going to give credit for will vary widely no matter what you do. You can make sure that the people that finally pass are roughly the same as far as their competence in various subjects, but we worried a lot about the public relations problem of getting somebody committed to a career and a profession, who suddenly finds out in Part 4 or Part 6 that he has some real basic problems in a particular subject, possibly enough problems that he needs to change his career course. The public relations effect of this is that it fed back to the colleges, which we thought were a pretty important ingredient. Have you any answers for this?

MR. MURPHY: It's certainly something we should be concerned about. One aspect that we haven't mentioned already about the AEC issue is that we might not initially allow a student to be considered part of our system only on the basis of asking for credit on some courses they have taken. We're not going to make them part of our system until they qualify by passing one of the courses that we give. Maybe one of the concepts we're looking at from the AEC point of view is that AEC credits are not granted to someone until they've also provided evidence that they can meet our standards on our own course, perhaps the Part 4 screening course or one of the other courses.

MR. SMITH: You keep making reference that this will increase the travel time but I see it as a way of decreasing it in some sense. Currently, if you are an undergraduate math major and are ready to take Part 3, which has Operations Research, Numerical Analysis, and Statistical Methods, you have to wait until you've taken all of those courses in college, possibly over the course of maybe two years, and then take the exam and review something that you took two years ago. If you break it up into units you can take the Operations Research exam immediately after you take the course and then you take Statistics immediately after and so on. You probably will know the material better and have a better chance of passing and getting credit as you go along. It seems you could potentially shorten your time through the process.

MR. MURPHY: There are a number of factors that I think do work in the other direction. The ability to choose electives is another one you didn't mention. If you are more interested in the topic, or it relates to a topic you've taken in school that was of interest to you, you're more apt to pass it. The defined tracks will help put you on a particular course. AEC has the potential to reduce travel time because you don't have to take exams for course work already done. Also, the research paper alternative could be an option for other courses. If we were to move to giving examinations more often, three or four times a year, it wouldn't necessarily mean that any one exam or course was given that many times a year. Given that there are smaller courses, the study time for a particular course is perhaps shorter. Maybe we can administer, and you can follow a system where you take courses in sequence on a quarterly basis, for example. That's a concept the E&E Committee will be looking at, and it would definitely have an impact on total travel time. Finally, vitality, as

Curtis described earlier, to the extent it's appropriate and applicable in given situations, will encourage you to move through the system.

MR. COLE: Here are issues presently under discussion where we are looking for input. How many units should we require for Fellowship? We had one quite eloquent letter received in response to the White Paper, that said since the Associateship designation is really a professional designation to the outside world, our present Associateship standards are low because we haven't required any testing on practical subjects. It suggested the Associateship requirements might be strengthened. But the number of units required for ASA and FSA is something we are working on now. What courses should be required and what should be elective? What additional topics can we add as electives that would be valuable to actuaries? Think of something such as "Life Insurance Corporate Modeling" as a Fellowship topic, or "Pension Plan Forecasting." The question of specialty tracks: how many different tracks should we have? The nationality versions -- the Canadians may have somewhat different needs from the Americans, and presently the Canadian sequence of topics to some extent is forced into the U.S. sequence of topics. We can get away from that. The Canadians now have established a couple of committees that are going to work on this. How often should we give exams, and how should we phase from one system into the other system? These are all issues that are presently being discussed.

MR. BARNEY: There was a letter in the last issue of *The Actuary* from an actuary who's working in one of the investment banking houses. That letter addressed something that I'd been hearing from the investment banking houses, which is that they are looking for the true general practitioner and if he could do brain surgery, orthopedics and gynecology, so much the better. It cut across not just the Society of Actuaries' functions, Life, Pension, and Health, but also Casualty. I'm wondering if any of you have read that letter or could address yourself to whether that sort of specialty, working in conjunction with the Casualty Actuarial Society, is something that you intend to address?

MR. MURPHY: We're going to speak to the CAS position on this, but certainly with AEC and the concept of electives we could conceivably allow, as an elective, a topic in Casualty Insurance that could be met via passing a Casualty Actuarial exam. If we were to define a generalist track, that might be something we'd like to include as part of that track. The Canadian Institute is very interested in FES and FEM. It sees FES and FEM as a positive step in the evolution of the North American E&E system, and it particularly hopes that both the Society and the CAS support FES and FEM and support it in taking advantage of FES and FEM. The CIA sees that it will be in a better position to specify subject matter in the curriculum that we provide, and that particularly it will be easier to give credit in a university setting, to keep up to date on Canadian practice with the simpler, more straight-forward Flexible System. There is also hope that this will lead to greater success in the bi-lingualism program that the Canadian Institute has going, both in an education and an examination setting.

Additional Questions from the Boston FES/FEM Session No. 34 (May 1986)

MR. DICK LONDON: I have often wondered about the Life Contingencies exam in the prototype, about this being required by exam only. If one of the motivations of Flexible Education Methods is the belief that you might enhance education by allowing credit by other means than exams, I find it somewhat contradictory that, for what we all agree are the most important topics, you disallow that opportunity for enhanced education.

MR. HUNTINGTON: The intent of the selection of those Society-only exams is: We believe the vast majority of the members would prefer to have a uniform standard established for a subject which is clearly actuarial and is one of the foundations of actuarial practice. These are considered to be the most important of the early exam subjects that an actuary takes. The areas in which we are proposing alternative credit mechanisms are areas in which the actuary is not traditionally the expert, and where there may be others who are capable of providing better education in a different environment. For example, a lab course in applied statistical methods might give a better educational perspective than would be derived solely from a course of self-study. In addition, the life contingencies exam has a requirement of a large number of hours associated with it. One of our goals is to have, on both the Fellowship and Associateship exams, one exam that has a significant number of hours associated with it so that students will work not only in short courses, but also in terms of the blending together of the large number of hours in one course.

We believe, at least in the initial stages, the life contingencies exam would not be open for acceptance of equivalent credit, but that the earlier Parts 1 through 3 would be. If the experience we have on Parts 1 through 3 in the different education methods is successful, the life contingencies course would always be open to further review.

MR. JAMES B. DOHERTY: Does this imply that you must have your Associateship before you can take the FSA-level courses? Quite frequently, you have those without an ASA who are taking Parts 6 to 10. Will this system still allow that?

MR. HUNTINGTON: This system would allow it. You would not be an ASA, but to get your FSA you have to pass all the exams. We had a couple candidates who have become Fellows without being Associates, and that would still be possible.

MR. DOHERTY: In terms of the time frame for getting your Associateship relative to getting your Fellowship, if the reason you do not get your Associateship units is because you have been concentrating on getting your Fellowship units, you could potentially lose your Fellowship because you did not chase your Associateship within your five- to- seven-year time frame.

MR. HUNTINGTON: That would be a possibility but remember, particularly on the Associateship exams, it is unlikely that the vitality would be lost for a subject like calculus at the end of the seven-year time period. It is more likely that the vitality would affect courses at the Fellowship exam level.

QUESTION: Are you going to maintain the three basic majors -- group, individual, and pension? Given changes in the current environment, I was thinking that perhaps an investment major would be appropriate after some basic actuarial training or educational system?

MR. HUNTINGTON: We are definitely going to keep the ones we have now. One of the benefits, we believe, of flexible education is to be able to provide additional specialties. If you look at the prototype closely, we established a department of health, which is not something that we have now. Investments is a clear candidate for another major. In addition, we had the proposal of the generalist track, so the intent would be to have several different options available for a candidate to select from.

MR. J. ROSS HANSON: I see that we still consider it necessary to have 30 units (or whatever) for calculus and algebra in there. About 25 years ago, I suggested at a meeting of the Boston Actuaries Club that we get rid of this. It takes a lot of a student's time, is a matter of selection rather than education. I think this would be a good point at which to delete this.

I would like to comment also that I think you have done a marvelous job, and the Society should be very grateful to you for what you have done.

The question I want to ask is: Can non-students take the examinations? I am in the Conference of Actuaries, and am partly responsible for their recognition of the continuing professional education program. We intend to make this much more valuable. I think, as a consulting actuary, that continuing education, where you have met the standards of your peers, is tremendously important. I would like to see exams made available to graduates, if you will, who might like to come up to date in some subjects.

MR. HUNTINGTON: I think the suggestion is very worthwhile, and we would have no problems, I think, attempting to implement that. In terms of your first comment, that issue is raised with great frequency. The observation has been made that General Chairmen alternate in their views as to whether Part 1 should be retained or not. My view has always been that we should keep it. My successor's view is that we should delete it, and my predecessor's view was that it should be deleted. We are about to enter into her reign so I suspect there might be more of a movement to have it dropped in the future.

MR. ROBERT B. HARDIN: Let's talk about the Part 1 exam for a minute, and college credit for it. Will we always administer an exam on that subject?

MR. HUNTINGTON: Our intent is to always have that available as long as it is a requirement and it is offered to the members. The availability of college courses is merely an alternative way of getting credit for it. In addition to having two administrations, in 1987 we are going to give Part 1 three times, making it available in February, May and November. This way, if students have not passed the exam in November, they will have an opportunity to retake it before they enter the recruiting season in the spring. In the flexible education environment (FEM environment), as long as calculus is considered to be a required course, the exam will be administered.

MR. HARDIN: Then I guess I have trouble seeing the point of certifying certain colleges as sufficiently rigorous, or whatever criteria we are going to use. The students can still go to college, get their education in whatever the appropriate way is, and then spend a Saturday or Monday afternoon taking the exam sponsored by the Society. What is the benefit at that level of exam for seeking college credit?

MR. MURPHY: One aspect of it relates to the travel time concern of having more and smaller units. Another aspect relates to the ability to get the college students into our more meaty courses quicker. If they demonstrate that they can take our courses and pass our exams on other subjects, we see no reason not to, in effect, accept their college work as sufficient education in these areas. Then they can get through more and smaller pieces of the rest of the pie much quicker. That is one aspect of it I think that is fair. The other is that we look at it as essentially background, as long as it is going to be considered a required exam. As Curtis' predecessor, I tried hard once to get rid of it and ran up against the selection arguments, which is an area we have to continue to work on. I think the travel time issue is one that is probably as good as any to describe why it is worth doing.

MR. MARK D. J. EVANS: First of all, on calculus. I use calculus a fair amount in my actuarial work. I see it as more than just a selection examination.

Just a little background: I did attend an actuarial school, and obtained my Associateship while attending that school. I also write questions for one of the examinations.

I think the exam structure is very objective. It is not affected by age, sex, race, etc. I am referring primarily to the AEC-cubed areas you listed. With course work, political pressures arise. This might include a professor who gives a passing or qualifying grade to a slightly substandard student whom the professor happens to like. Also, professors will be under pressure to produce students with favorable exam results. This pressure will come from both college deans and other academic supervisors and students. Maintaining equity between the various institutions will be difficult. If a course is structured to be as demanding as the examination, which have pass rates of about 35% to 50%, most students will be scared to sign up for the course if it is as rigorous as the examinations.

Companies are likely to be reluctant to recognize exam credit acquired through non-exam routes when recruiting new actuaries. This could increase the exams needed to get a job to 3 or 4, or under the new method 120 to 160 credits. I think the Board of Governors should consider carefully whether exam credit through course work is consistent with the wishes of the members of the Society. Regardless, I feel the Board of Governors should not make such a change without permitting the membership to vote on the subject.

MR. HUNTINGTON: I will call on Godfrey Perrott, chairman of the implementation task forces, to give you some feedback as to what his group is looking at in terms of the college courses.

MR. PERROTT: We have addressed AEC-cubed for topics that we felt were prerequisite-type courses. These are courses which if you did not have competence in them you could not (or it would be very difficult to) pass the remaining exams. Courses that fit into that category are the current Parts 1 and 2, and probably economics on Part 8. We are working on a prototype for these courses which proposes that math major courses which completely cover the syllabus in an accredited college in North America should be acceptable for conditional credit. We do not propose the credit would be absolute; it would be conditional on actually passing other Society exams. Alternate credit would not be available for any exam that the candidate had failed. In other words, one failure of Part 1 means that regardless of what calculus courses you have, you could not get credit without taking the Society exam. Secondly, if you fail over 30 units on the new system of exams, before passing sufficient exams to validate the conditional credit, you could not receive credit. We are trying to structure something which both preserves the value of the FSA (as I think Linden said, all of us are FSAs, and we all value that designation very highly) while at the same time limits the travel time of the top students that we are all trying to recruit.

MS. CAROL MOELLERS: I would like to know what consideration you have given to evaluating whether or not the program is successful. What is going to happen to people who have partial credit, or who have attained their ASA or FSA during this transition period?

MR. HUNTINGTON: We are not full steam ahead in terms of implementation. We are full steam ahead at this point through Phase I, producing the Associateship exams in a flexible education environment for 1987. The remaining concepts are still under basic discussion. The transition that I showed you in terms of the prototype basically had no transition; it is a direct mapping of the current exams into the proposed prototype. That being true, there would be no transition, or a basically minimal transition at the Part 9 and 10 level. A person who has an ASA designation earned before any of this occurs would retain the ASA designation. If he had the ASA designation because of exams in 1986 or if he had it because of exams in 1935, that designation would be unaffected by the proposal.

MR. MURPHY: I think maybe she is also wondering if it is possible that we would undo (or in other words repackage) the pieces some day, and what kind of transition that might cause. I guess you could say, from that point of view, that full steam ahead relative to FES for ASA exams is clearly in place and is not viewed as experimental. It will remain in that smaller unit organization, and there would not be a need to repackage.

MS. MOELLERS: I was concerned about how you will decide whether or not it is a success. If you find it is not a success, what happens to people with partial credit, or who earn their ASA or FSA during that period you were using it?

MR. HUNTINGTON: If it is determined not to be a success, we would provide a suitably long period of transition back to the existing environment. To do a test of the thing, we will spend some time establishing some standards that we will measure against. They have not been fully established at this point. We are still in the process of developing them to see whether or not this approach is reasonable, particularly in terms of the acceptance of equivalent credit for college course work. That would probably be introduced initially as an introductory-type thing and we would see how well people who received conditional credit perform on later exams. If it turns out that everybody who is applying for conditional credit manages never to pass an exam, the standard obviously is not working and we would need to re-establish that.

MR. BENJAMIN G. SPURGEON: I suggest if you adopt the flexible education methods you are going to weaken the standards of the Society even on Part 1. Consider the fact that currently 60% of the people taking Part 1 fail it, although virtually 100% of them have passed an accredited college course in that subject. The same holds for Part 2 and for other exams as well.

MR. MURPHY: The only response I can give to you on that is: How many times do we have to put each of the students through a 40% or 50% wringer to be sure we have a high-quality FSA or ASA? As you heard in Godfrey's description, we have some control and are not going to give people credit for anything until they have demonstrated that they can go through our screen. We will keep a significant proportion of our screen in place, which is one of the guidelines we have established. We do not think we will weaken standards overall. Obviously we have to take a close look at how we do this so we do not weaken standards. I do not necessarily think that taking away, say, two exams with that 40% or 50% screen is going to lead to weakening the standards as long as you still have several exams with the screening percentage.

MR. HUNTINGTON: It would be a requirement that you validate the exam screen by passing one of our exams. For example, if you were to try to get credit for Part 1 or 2 under the alternate approach, you would have to receive credit for a Part 3 exam which includes much of the background material from Parts 1 and 2. In terms of conditional credit, the goal would be that you would not just get it because you had taken a college course in those subjects.

You would have to have received no lower grade than a "B" in any subject you had taken; it may be a "B+" at some point. There would be some minimum standard established, even for the academic work that is being considered.

MR. SPURGEON: I suggest that the desired simplicity would be largely sacrificed. It would be a very complicated process.

MR. HUNTINGTON: Our challenge is to not make it an administrative burden.

MR. THOMAS NEAL TAYLOR: Did I understand Mr. Perrott correctly? I believe he said that according to what is being considered now, if someone gets AEC-cubed credit for Part 1 (calculus and linear algebra) and then attempts another exam which would require that knowledge, such as actuarial mathematics, and fails it one time, he loses his AEC-cubed credit. Is that right?

MR. PERROTT: I would not put it that way. He applies for AEC-cubed credit for Part 1 and is granted it conditionally; the condition is that he or she can demonstrate above average competence on the exams. The way that we are drafting the prototype, if it were to be adopted, it is very unlikely that a candidate would take Part 4 unless he was very competent. He would probably take Part 3, since he would only require 30 units to validate it, and failing 30 units one time would not invalidate it. The thinking process of the committee is: No matter how good a student is, when he hits the Society exams he is likely to be surprised. Failing one exam is acceptable, but we have no interest at all in giving equivalent credit to the kind of candidate who takes three attempts on every exam to get a 6. That is not the person we are after. We are after the person who routinely gets 8s, 9s, or 10s, and occasionally stubs his toe.

MR. TAYLOR: Have you proposed any specific rules that might prevent him from getting his AEC-cubed credit on Part 1?

MR. HUNTINGTON: The group is developing specific rules that we would propose to share with the membership for comment. We are still in an evolutionary phase. We are aware of the concern that you are raising, and my suggestion is that in about 4-6 weeks time there will be information available pertaining to that.

MR. STEPHEN A. EADIE: I think you are delaying the selection process by implementing this college accreditation. If the person who goes in and fails Part 3 or Part 4 finds out a little later in their exam-writing process that they are not going to make it and they drop out at that point, then you have really cost them a little bit of extra time. I am not sure that is fair.

Also we probably have some people in this room who have written an exam and gotten a five star. You are now splitting the syllabus up quite a bit. Are they going to get credit for the partial exam?

MR. HUNTINGTON: No.

MR. WAYNE E. STUENKEL: I am looking at this as an employer of actuarial students. We hire one or two actuarial students each year. We will hire people who have come from Georgia State, or another actuarial school, and who have passed three or four exams. We know that they probably have both the motivation and the intelligence to pass the actuarial exams. For someone coming out of another college that may have a competent math department, having Part 1 credit by examination is very important to us in terms of seeing that they have this intelligence and motivation. Giving them conditional credit and then waiting until Part 3 or Part 4 is passed to validate that credit just delays the selection process. I am looking at a big commitment that the company makes in terms of salary and time spent in training someone, and to have that person flunk out after two years when they cannot get Part 4 is tough for us as employers.

MR. COLE: My response to that is twofold. First of all, students can still take our Part 1 if there is a job hanging in the balance. I understand that quite a few people continue to discover that they can get summer jobs if they pass Part 1 and they do this without thinking about becoming actuaries at all. That option is still there. It would only be the person who is well-informed, and thus probably has a good chance to pass Part 3 or one of the later exams, who would request alternative equivalent credit for Part 1.

MR. STUENKEL: I see Part 1 as being kind of a security blanket. There's a warm fuzzy feeling I get when somebody has passed Part 1.

MR. COLE: It will still be there. You can get the word out that you like that warm fuzzy feeling, and that they should pass Part 1.

MR. STUENKEL: I hope my competition does the same thing.

MR. MURPHY: Presumably you are talking about people who have graduated from college and have heard about the profession. They could take the subjects on the exams that they might take to validate the equivalent credit while they are in college, just as they would have taken Part 1 with the Society. Therefore they might come to you with the validation having been accomplished, and have under their belt three exams in effect or three courses rather than just one and be further along in the process of education for your benefit as well as their own.

MR. ALFRED J. LEBEL: I laud any effort to move toward an education-based rather than an examination-based screening process. I have two questions that are related to this "travel time" issue. First, it is clear that there are courses that become obsolete (taxation is a good example) with the passage of time. Have you considered whether that course is more obsolete for the person who did not make their FSA "in time" than for the person who achieved the FSA in short order and but now knows as little about the topic as the other person? Have you considered any continuing education process for the FSAs?

MR. HUNTINGTON: One of the benefits of the Flexible Education System is: We can split the exams into smaller units. There would be more of an inclination for an FSA working in the area of taxation to come back in and take that one specific course. These courses would be self-contained. They would be manageable units and under professional guidelines. You might feel compelled to take that course instead of going in and taking an exam that is five or six hours in length; you would be more willing to spend some time taking a small unit. We expect it to tie in very closely with the work of continuing education units and the various actuarial organizations.

MR. LEBEL: You talked about giving one of the earlier parts more frequently, perhaps three times, rather than twice a year. Are you considering giving all of the exams more frequently? Particularly if you are looking at continuing education, you might have an FSA who could use a refresher in a particular area who doesn't want to wait six months for that refresher.

MR. HUNTINGTON: The basic answer is yes. It is a logistical problem; it's a staffing problem. To the extent that we have the resources available, we would be more than happy to do that. Our intent is to have every exam offered at least as often as it is right now. Where possible, and where there is demonstrated need, we would make attempts to do it more frequently. For example, we have made that attempt on Part 1 as we have already shown. It will take some time to do that for all exams, but we will be working on this in the future.

MR. ERIC I. PALLEY: Being a new Associate, I am still pretty familiar with the syllabus, especially when it comes to Part 3. I just wanted to mention the fact that you really need no knowledge whatsoever of Parts 1 and 2 to pass Part 3. I think that is something you should consider in terms of granting credit.

The question I have relates to granting credit for seminars. I was interested in finding out how you were planning to evaluate students to give them credit for being at those seminars. Would they just pay their money and go, or would there be actual requirements?

MR. HUNTINGTON: We have a number of possibilities for requirements for equivalent credit. We have focused on college courses, since that was seen to be the issue that is most controversial. We have plans to start examining how seminars would work in this particular environment later on this year. I think that we would intend to have a seminar, for example, where diskettes would be sent out to you ahead of time containing a business problem, and you would have to do some work on your own in preparation for a class where you then join with colleagues and do management games together. There may or may not be an exam required at the end. There are a variety of ways we might be able to validate it. We have not settled on any of those right now.

MR. W. H. ODELL. The group is certainly to be commended on the work they have done to improve our educational process. The Flexible Education System certainly has a great deal to recommend it. One advantage is that it will adapt very easily to continuing education. As most of you know, the Conference of Actuaries in Public Practice now has a formal program of recognition of continuing education.

Concerning just the matter of determining which college courses should be recognized: There are certain practical difficulties. We might examine these by looking at the experience of other professions. The medical profession has a fair degree of control over medical schools; the AICPA has rejected this approach. To give you one example of how difficult it is to identify colleges and universities which are doing a good job of bringing up young actuaries, I can recall visiting a school in 1970 on behalf of our Committee to Encourage Interest in Actuarial Careers. I had the privilege of talking with a teacher who had been teaching actuarial courses for 25 years. He had never been thanked by any member of our profession. That school had graduated more students who had completed actuarial examinations than four well-known actuarial schools combined. Yet that school was then, and is now, rarely mentioned in discussions of actuarial schools.

I believe there are practical problems in recognition of college courses, and would suggest the committee consider this one point. The new approach as a whole is a great improvement.

MR. COLE: In conclusion, may I say again that it is not too late to write your opinions. If you have strong opinions, let us hear them. You can write in the same way you responded to the White Paper. We are still reading our mail and so is the Board of Governors. These things are not decided. We are in the process of thinking about them. Please let us have the benefit of your opinions.