1994 VALUATION ACTUARY
SYMPOSIUM PROCEEDINGS

SESSION 15

Health -- NAIC Emerging Issues

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J. Alan Lauer

MR. S. MICHAEL MCLAUGHLIN: Our first speaker will be Bart Munson. Bart is a partner with Coopers & Lybrand in its Milwaukee office. He has had a long involvement with long-term-care insurance. He is Chairperson of the Society of Actuaries Task Force on Long-Term-Care Insurance Valuation Methods. The task force had a recent meeting to discuss its very long exposure draft report, and Bart will be covering the latest status on the work of that task force.

Our second speaker is Bill Bluhm. Bill is consulting actuary with Milliman & Robertson in its Minneapolis office. Bill has worked over the years with many health insurance and health-care-related organizations, advising them on various issues. Currently, he is Chairperson of the American Academy of Actuaries Health Organization's Risk-Based Capital Task Force. The task force issued a report on its work to the NAIC in June 1994. That report has received wide circulation, and there has been considerable discussion of the contents of that report. Bill will update you on this important emerging issue.

Alan Lauer is senior consulting actuary for Ernst & Young in the Philadelphia office of the firm. Alan has had very wide experience over several years, including insurance company work and regulatory work. He was deputy insurance commissioner in Pennsylvania. His responsibilities at Ernst & Young include regular monitoring of NAIC emerging issues, and so he's a natural for our panel. He will comment on various topics, including convention blank changes and health practice notes.

MR. BARTLEY L. MUNSON: The Task Force on Long-Term-Care Insurance Valuation Methods did meet on September 1, 1994. I want to reflect what we covered up to date as best I can. I do represent the task force members with a plea to you to give us input still, if you have some. We are very open to that. I'll comment on what we've received so far. Even though the comments received so far are a little troublesome to sort out and respond individually to, which we intend to do, they are still very valuable, and we'd like to have more.

Our emphasis at this session is on the NAIC, and I'll comment on more than a couple of things as we go through with the NAIC emphasis; frankly, the NAIC has not been actively involved in this yet, except creating us. Mark Peavy has been a valuable member of the task force. I think it's interesting for you to know that in June 1994 at the NAIC meeting, where I gave another report to the people there of our progress, right afterwards they asked to remove Mark from being an official member of the task force; rather, make him an official liaison member from the NAIC. It may be splitting hairs, but it was important to them and it made sense, and certainly we agreed. I think it was triggered by our discussion of the method, but I don't want to speak for the members of the NAIC Life and Health Actuarial Task Force. That is, the members were very concerned about what method -- one-year or two-year preliminary term -- we come up with. It was after the discussion that focused on that when I was asked to remove Mark and make him a liaison member. He still comes to all the meetings, as he always has, and is a very valuable member to us.

I thought in keeping with the subject of this meeting that I'd first say a word about how we got here. It's kind of a retrospective evaluation. Second, very briefly, where are we in terms of the input you've given us? And, third, where are we going? Prospectively, what does it look like in the coming months?

The retrospective, you may recall, was a December 19, 1990 letter from the NAIC. It asked us, essentially, to develop a morbidity table suitable for statutory valuation purposes, addressing the variety of product designs and gatekeeper mechanisms that exist in the market today. This was after some correspondence back and forth between the profession, both the Academy and the Society, and the NAIC.

The Society gave us this charge way back in 1991:

> This task force will develop recommendations for the valuation of long-term care insurance products, incorporating as appropriate an interim method, available data, the valuation actuary concept, and methodologies suitable for the type of product being valued and its underwriting characteristics.

I think it's fair to say that, through our 15 meetings, this has been a fairly accurate prediction of our charge.

We do concentrate on statutory, though we have a few comments on GAAP and tax. We're really looking primarily at the contract reserves, though we comment some about claim reserves. We thought some of those phrases in the charge, in retrospect, made a lot of sense, though of course, we didn't write the charge:

- It's an interim method, because certainly this product is in a fluid state. We don't expect and believe that we're going to do the final word on this, but we will have a final adopted version.
- It's based on available data, which aren't much. We keep being promised and expecting we're going to get more. We appreciate the intercompany study folks who have contributed to the Society's study, and I've been a member of that committee from its beginning about seven years ago. We fear and we believe that the data coming out won't help much. There just isn't much available in shared data and the charge acknowledged that.
- The valuation actuary concept is considered. You see that all over our exposure report. The actuary should consider keeping in line with the valuation actuary concept. We've been both praised and condemned for

doing that. That is, we ought to be more specific in some areas, we've been told, but with this kind of product it's been difficult to be entirely specific.

- The charge also required methodology suitable for the type of product being valued. Types vary all over the lot. This was a good warning in the charge.
- Its underwriting characteristics, which we do look at, were flagged for us. But once in a while we remind ourselves that it is valuation. There's a limit to how much we can reflect underwriting in a valuation process.

It's often confusing that the long-term-care model regulation has a long section about how to do reserves for accelerated benefits, including 19 items listed that the actuaries should consider. If you don't read it closely, you'll miss that's what it's about, as many people have. Then the model has a little point B that says other than accelerated benefits we are to do valuation according to the way a qualified actuary does and in a way that is acceptable to the commissioner; it's about that short.

Then there's the Minimum Standards for Individual and Group Health Insurance that you're familiar with, I suspect, for other forms of health products. In 1991, it was updated for long-term care. If you go through that:

- For the morbidity, there is no standard; it's established by a qualified actuary and must be acceptable to the commissioner. That's what the regulators work from today.
- In terms of termination rates, the total -- that is, mortality and lapse -- can't be greater than the smaller of 80% of that used in gross premiums, or 8%.
- Interest rate is the same as whole life, using the issue date for the contract reserves and claim incurral date for the claim reserves.
- The method, which was updated in 1991 explicitly for long-term care, says it's one-year full preliminary term. I'll comment on that a moment later when we talk about that vexing issue for our task force.

I'd like to say a word about what I call the present values of this evaluation; that is, the input we've received. Some of you have given us some input, but there are not very many of you. We knew there wouldn't be many. There are never very many on almost any kind of an exposure in our profession. We would all like to generate more. We have tried to do so at this meeting and received two good letters, so they're still coming in. Part of the delay was our lateness with the diskette, and we apologize for that. To date, there have been 14 letters and three notes in writing.

We have solicited 11 insurers outside of the task force, asking them if they would be willing to test some of our ideas on their blocks of long-term-care business. We don't want to know anything confidential, but some real-life tests by some real-life actuaries and insurers would be helpful. We've heard from three to date; a fourth and a fifth may be in the pipeline somebody told me. It's a matter of great financial interest to the carriers, so we do hope that they will give us a shot.

The responses have ranged from applause, I hope sincere, to: "The task force cannot seem to take a clear stand on anything." I suspect we deserve at least the criticism, and many other comments. Some of the letters, predictably, will say diametrically opposed things. For example: "You should be more general and give us guidance because we, as the valuation actuaries, should apply . . .." Others have said, "For goodness sakes, give us an exact minimum valuation method. We ought to be able to go to it and calculate our long-term-care reserves." That's more difficult to do, though we are going to focus more in our final report.

The input has been very helpful, and I say that sincerely. The task force is reviewing all of the letters we've received. We had most of them when we met ten days ago. We will respond to each one directly, and we will reflect, as appropriate, each of them in our final report.

I would like to hit a few of the issues we're struggling with. Let me go through them quickly:

- Mortality is a concern. We need to say more clearly in the report why we came up with what we have, but it should be conservative a bit. That is, the insurer's experience with mortality should be a bit higher than that used for the reserve. We ought to predict that people will get to later durations where their claims are so high. It should be fairly simple, and it has to go beyond age 99, unlike 1980 CSO. We came down with 1983 Group Annuity Mortality (GAM) not because it was the right way to do it by name or that we should use an annuity mortality; rather, it's a bit lower than, for example, an unloaded 1980 CSO, and it does extend to age 110. We will provide more background on our rationale for that.
- We are definitely now leaning toward sex distinct, not a 60/40 or other blend that the actuary may choose. We think that's more appropriate, and we talked about that at our last meeting.
- It will be age last birthday.
- Interestingly, and I share this as an example of not just mortality, but we have debated the use of the diskette itself. It will contain, we believe, various tables. We had a debate. Should the actuary using the diskette (which is not the standard itself but a big help) be able to choose from a variety of tables? Or should we include only the 1983 GAM? We decided that including only the recommended table would be too limiting. We should include at least the 1983 GAM and the 1980 CSO, which seems to be used widely now. How about five or six others? There's a debate between whether we should focus in narrowly on the valuation actuary's tool to say use the only offered one (but you may be using 1980 CSO and so we will assist you in comparing) or facilitate comparison, education, and understanding for the valuation actuary by including several others. I think the bet at the moment is we'll include others, but we haven't finalized all of that. We'd like to be more instructive

and helpful and leave it up to the actuary to follow the default assumptions or demonstrate why not.

- The institutional morbidity table is based on the 1985 National Nursing Home Study per the *Reports* from the Society of Actuaries. Our Society adopted that. The valuation actuary, if using the diskette, can use factors that change the utilization rates for all durations. A coefficient in there will change it for both institutional and noninstitutional, for some of the reasons that the report may identify: it came from the general population; maybe there are different controls on nursing home beds that concern you in different states; and there are numerous other possible product and benefit trigger adjustments.
- The noninstitutional table was our big hang-up, and it is yours, too. That's why some of you already, unfortunately, praised us for coming out with something that's helpful for pricing. That makes us cringe. This is not and will not be a diskette or a process that is meant to be a long-term-care pricing tool, though we're not naive and we know that it may be helpful. The noninstitutional morbidity certainly was the biggest hurdle of our task force and held us up probably a year. After several false starts, we've come up with what's described in the exposure report. It's based primarily on the 1982-84 Long-Term-Care Surveys. (The 1989 version is not out in a useful form yet. If it is in time, which we doubt, we'll include it in our final report and change some of that information because of it.) It's based on some things that are described in that chapter. The final report will have a lot more information about it, including sources and how we did it. At the same time, we're not willing or able to make the whole report into a pricing study for noninstitutional benefits. The tables do look at the utilization assumptions that the actuary must make and require many adjustments to be made as the noninstitutional table is utilized.
- A bigger challenge may be combining both institutional and noninstitutional. The fact that one of us could price long-term care or value long-term care on one particular type of product doesn't help a whole lot when we're trying to

do a standard for every conceivable type. Certainly if we had any one of these combinations, let alone the so-called simple extremes, it would be all right. In the extreme, we have products that only have nursing home or only have home care. There are all kinds of combinations in between. We have tried to accommodate that in the diskette. It's not quite as clear as it should be; we're going to make a modification or two to make it better.

- One of the task force members volunteered to help in the final report with a scenario called the Mighty Fine Insurance company, which we hope will help talk through some of the thinking that an actuary might go through with long-term care.

I'm going to show you a couple of columns of numbers just quickly to give you an example of the kind of testing we're doing (and which you could, too). Let me tell you the base case that we're working from. We assume for common definition that we worked with a case that's based on one-year, preliminary-term and mortality on 1983 GAM. We used selection that is 50% first year, grading up to 100%, no selection for years six and over. There is $100 a day nursing home, $50 in-home care. A deductible is shown here, which is meant to replicate a 100-day elimination period. It's a little complicated the way the diskette is set up, but if you assume 50 in one and 70 on the other and it's a combination product, as Mighty Fine's description will point out in the final report, it will come out something like that. (We need to try to clarify that part of the diskette better.) It's a four-year benefit period, with no inflation, no nonforfeiture. We made it easy, relatively. There are level lifetime premiums. We used the morbidity from the diskette with no adjustment. Selection, as I said, both here and in mortality are the same. Lapses we chose as 8% the first year, and 7, 6, 5, and 4% flat for years five and over. We think antiselection is important for the actuary to think about. The good risks are going to lapse. The bad risks will stay with you. The higher your lapse rate, the more we think that an insurer is likely to experience that antiselection. We assumed antiselection here, and I'll show you the result of it in a second.

As stated, females and males were 60 and 40, respectively. We are focusing on two issue ages; we settled in on 45 and 70 to more properly replicate perhaps the so-called group and individual products.

If we just look at selection in the underwriting process, these are terminal reserves as a percent of that base case (Table 1). In the first couple of columns, if we said that there was no morbidity in the first ten years and then 100% thereafter -- unrealistic, but that was one of the cases we ran -- you can see the ratio of reserves here to what you get on the more reasonable base case. In the second pair of columns, if you said that there was 75% selection, that is, if you say that you'd experience 25% of the morbidity in the first ten years, flat, and it jumped to 100% thereafter, you'd get that ratio. This is the way that reserves are affected.

Perhaps more interestingly, we did what I call here a grade down or a grade up, and they're listed at the bottom. We have seen both kinds. It looks a little strange to start out with that much antiselection at issue, but it happens, which is the grade down; and the grade up goes from 20% up to 100% eventually. The reserves act in those kinds of fashions.

We hope the valuation actuary as a part of the valuation process will have to look at your block of business, and we hope, use the diskette or your own tools and in one way or another take a look at what you think your actual practice is and how it affects reserves.

Quickly, I'll discuss voluntary lapses. As I said before, we set 8%. We think there should be mortality plus some lapses that are appropriate. We said use 80% of the pricing lapse, but don't exceed 8%, and that's separate from mortality. We have been criticized a bit for seeming to suggest that ultimate lapse rates on long-term care maybe should be 10%; that is, 80% of 10% is 8% ultimately. We don't mean to suggest that, and many insurers' ultimate lapse rates are quite low, but that's what

TABLE 1

Selection and Underwriting
Terminal Reserves as a Percentage of Base Case

Morbidity Selection at Issue

	None 1-10 100% Thereafter		75% 1-10 100% Thereafter		Grade Down		Grade Up	
Year	45	70	45	70	45	70	45	70
2	101%	80%	94%	82%	72%	55%	103%	98%
5	106	94	97	87	80	63	104	102
10	113	135	102	104	91	79	104	110
20	104	113	101	102	98	92	101	105
30	101	109	100	102	99	94	101	103

Grade Down = 250%/200%/175%/150%/140%/130%/120%/110%/105%/100% thereafter

Grade Up = 20%/30%/40%/50%/60%/75%/years 6-10, 100% thereafter

we have at the moment. All we can say is the valuation actuary needs to look at his or her lapse experience, the kind of product, the underwriting, where the lapses are occurring, whether you have a valid volume of business, and so forth, to make those kinds of conclusions.

One letter to us wondered why we're even thinking about antiselection. We don't do that on a lot of other valuation processes for products, and why do we pick out long-term care. I don't think the task force members have seen that recent letter, and I certainly can't speak for them. But I think it's fair to say that we think antiselection can make quite a difference. We think, unlike other health products, where it's a prefunded level premium for long-term claim costs that rise, this can produce quite a different result than if we worried about antiselection in other health. That's not to say it doesn't occur in acute care health products. It certainly does. But when we're talking about setting up reserves for level premiums and escalating claim costs, we get into a different arena.

Here are a few numbers just to give you an example of lapse and antiselection (Table 2). Again, it's the ratio of reserves to the base case. In the first pair of columns, what if you had perfect antiselection? Perfect is defined in the footnote as where you'd retain all of the long-term-care claim cost with your ongoing block of business. You'd "just" lose the premium from those who lapse. That is perfect antiselection. People who are going to claim aren't going to drop it. That's extreme, but that's what we get in the perfect antiselection with base lapse case. We also did it with the 8% lapse for all years just to see the effect. The last two columns talk about partial antiselection. We defined that as where, after any duration at which a lapse occurs, you would retain 45%, 40%, 35%, and it graduates off after the time of lapse. You can see in those columns the reserves go up a bit, maybe 2% or so.

We've debated whether it's worth adjusting at all for a medical necessity trigger, or how much to adjust at all for a different activities of daily living trigger. Particularly,

TABLE 2

Lapse and Antiselection
Terminal Reserves as a Percentage of Base Case
Morbidity Antiselection at Lapse

	Perfect Antiselection				Partial Antiselection			
	Base Lapse		8% Lapse All Years		Base Lapse		8% Lapse All Years	
Year	45	70	45	70	45	70	45	70
2	142%	143%	110%	155%	102%	102 %	57%	89%
5	142	147	115	169	102	103	59	93
10	140	144	123	184	102	102	62	96
20	137	128	135	151	102	102	72	97
30	135	118	149	167	102	101	84	88

Perfect = retain all long-term-care claim costs, but lose lapse premiums

Partial = retain 45%/40%/35%/30%/25%/20%/15%/10%/5%/zero thereafter of long-term care

Base lapse = 8%/7%/6%/5%/4%/thereafter

the latter has been debated within the task force, and there are different views. We will augment that with our final report.

Just to remind you: we have sections where we talk about adjustments for premium classifications; we need to do some work yet on nonforfeiture benefits, and other remaining issues, but let me mention our favorite hot topic at the moment, which is the method to be used.

We're aware that there are strong feelings on both sides about this. The actuarial profession has suggested to the NAIC that one-year preliminary term is appropriate. That suggestion came from a statement of the American Academy of Actuaries in 1990. The NAIC adopted it in 1991. The NAIC currently strongly favors one-year preliminary term. Many believe the Internal Revenue Code limits the deductibility of reserves to those based on two-year preliminary term.

We lean towards one-year preliminary term, but we're certainly not unanimous within the task force, and the verdict is not in. We are trying to establish criteria by which we make that decision. We will compare with other products, though that isn't terribly helpful; we don't find real guidance from how we got to where we are for other products.

Furthermore, we ought to do what's right, whatever that is, for long-term care. We are not here to look at gross premiums, company strain, or profitability by different definitions. I think then our Society lawyer might be concerned, if we aren't careful. We are working with those issues, however, in a safe fashion, to illustrate the impact of reserves on that. Most of our respondents prefer one-year preliminary term, though certainly we have had some strong reactions on the opposite side. One company wrote that, based on its gross premium valuation reserve, two years doesn't appear to be quite adequate and the company's numbers suggest one year. A lot of people are thinking about the issue.

All I can say is it's the one subject we're putting the most pressure on to get some work done in the next month or so. I think if we came in with a weaker reserve basis than we have now at the NAIC, we might be chased out of the room. We need to do that, if we want to do that, carefully. With the turmoil in Washington, we have been aware that maybe we should see what opening there is to clarify the federal Internal Revenue Code. That is a long way of saying that the verdict is still out.

I want to just say that the final report and diskette will be revised. We certainly are going to reorder the report itself, revise it, and edit it. It was only an exposure report. We will put some kind of a forward in that's clarifying. We will identify the minimums in the standards, and we'll state those up-front, if we can. The tables for both institutional and noninstitutional probably will be in the appendixes, and they'll be clarified.

We will have Mighty Fine Insurance Company as probably the first appendix -- and it's not only because it may be cute and we've had some fun with it but also because it may be educational and helpful to understand our report. We have to improve the rationale, in places. We will put in numbers and graphs; some of the graphs and some of the selected numbers off the use of the diskette are very revealing and very helpful. We will have to give guidance, not all the answers. We never intended otherwise. It can't be done.

The diskette needs a user's manual, and we're working on it, with full documentation. It is not the standard, but it's very difficult to apply the standards without something like that. We had debate on whether it should be education with a default or should we limit the user. We're still wrestling with that.

As I said earlier, the diskette is not for pricing. Some of our letters have praised us, as I said, for doing a pricing tool for long-term care. We know one can calculate net premiums and divide them by .65 or whatever you want to do and get a gross, but

I think you do pricing at your peril; there's a lot of issues one should think about in pricing. I think the reason it's been tempting for that is evidence of the fact that there's such a dearth of information on which to base pricing, particularly for the noninstitutional benefits.

The diskette will be a tool to use with a valuation report. It is not the report and it is not the standard, but they do go together.

Finally, I have some basic thoughts, real quickly:

- The reserves are not net premiums, and I know you know that. I know the task force knows that. But more than once, probably at every meeting, someone says, "Yes, that's the way the net premiums would work, but we're talking about reserves." Think that through carefully as you use it, and think about your block of business.
- "The floor may become a ceiling" is a troubling concept for us, and I think we've mentioned that to some of you before. It particularly responds to those who say we should come out with a standard and make it a minimum reserve, set it, that will be it, and at least the regulators will have that to go by. Well, that's true, but, as many have pointed out, that floor will quickly become the ceiling in many companies for the valuation actuary, who may be asked: "Why are you so foolish as to set up more reserves? Why, the profession itself and the NAIC say that's all you need." I'm overstating it, but that's the kind of comment we want to keep in mind and don't want to overly facilitate. I thought someone's phrase one day that "the floor could become the ceiling" is helpful to remember.
- As a segue into Bill Bluhm's presentation, we do have a chapter on risk-based capital. We should have something in our financial report. We will try to write it and be up to date and make some kind of crossover into that subject. We are not comfortable, for example, why the method of reserve, say one or two year or even net level, shouldn't be acknowledged in the risk-based

capital formulas. It's difficult to do and I'm not being critical, but the reserve being held, as well as the risk-based capital one should hold, are certainly related.

- We had hoped we'd have one or two more meetings of the task force and we'd be done. We're still hoping for that. We plan to clear our final report at the Executive Committee on December 1, and then we'll talk two days later with the NAIC, Then, I hope, we will have the Board of Governors accept it, if not adopt it, on January 10, 1995. [NOTE: The schedule has changed to the March and May 1995 meetings.]
- We will work in 1995 with the NAIC people as needed. I don't know if this year's task force people or some follow-up people will help them implement whatever it is we want to do. I want to say one final word carefully with regard to the NAIC. We have kept those people apprised of what we're doing at least at every six-month NAIC meeting. They've been very appreciative. They've been overwhelmed. They have all these other issues they're struggling with, and frankly, some of us have been a bit disappointed and don't know how to make them alive on this issue, even though they will care deeply about it. They will pay attention to this. I have no prediction about what's going to happen in 1995 with our final report, except I think it will be difficult for the NAIC not to adopt it and put it in for valuation standards for the valuation actuary.

HEALTH -- NAIC EMERGING ISSUES

MR. WILLIAM F. BLUHM: I'm here as the Chairperson of the Academy State Health Committee and as the Chairperson of the Risk-Based Capital Task Force of the Academy to give you an update of where we are and where we're going.

Our work originally started in December 1993. Commissioner Wilcox of Utah, who was the Chairperson of the NAIC's Risk-Based Capital Group, who is also an actuary, asked the Academy as a technical task force to help him develop a risk-based capital formula that would apply to all health coverages and health companies, HMOs, Blue Cross/Blue Shield plans, and possibly property and casualty (P&C) companies; and that was sort of dropped along the way because it was too much for us to bite off.

We did provide an interim preliminary report in June 1994, which many of you probably heard about. Along the way, we knew that the numbers in that report were still very preliminary. We knew there were problems with them, and that's why it was a preliminary report. Unfortunately, we did get some overreactions from some folks, and there was some misinformation passed along and we've had to spend a long time trying to counteract it. An updated version of that report, which is still not final, will be presented soon in Minneapolis at the NAIC meeting of Commissioner Wilcox's committee. I'll tell you a little bit about what's in it.

The June report outlined what we had done up until that point. We started out with a roomful of people from various types of insurers and with various consulting backgrounds; the Academy's task force is being supplemented with quite a number of industry representatives who were interested in participating, most of whom were actuaries, but not all. We spent a couple of days identifying relevant risks. That might not seem to be a good use of time, but it really was because it put everybody starting from the same point in deciding what was relevant and what wasn't in terms

of risks. Then we could identify the most material risks that should be reflected in a risk-based capital formula.

We also chose the model that we would be using, which is still the same model we're using today. We have modified it and enhanced it along the way and debugged it, but it is still the same basic approach. We have a generalized model that is used to model ruin of a given line of business over a seven-year period. We now measure ruin either in terms of the last five or three years of that period.

We built the models. We wrote a program to do it. We built them conceptually. We did side studies, which included gathering historical data from the financial results of a large number of insurers. We've gone through that process twice: once for the June report and again for the September report. We defined all the model cells that we would be using. The first time through, we counted 84 cells. This time through, there were many more. The September 1994 report is still incomplete. It doesn't contain the detailed appendixes because we haven't finished the modeling.

Stage two, which is what we've been doing since June, includes a lot of discussion. The first report generated a lot of interest, especially among companies that weren't interested the first time around but realized after the June report that they had a significant interest in what was going on. We have refined the model. We have eliminated some of the theoretical issues that we had with it. We received 118 separate issues as of early August. We've received a few more since then that didn't make it into the report yet.

We created some subcommittees to help make the work more manageable. One of those is the Data Assumptions Subcommittee, which was charged with obtaining, reviewing, analyzing, normalizing, and making consistent all of the data and assumptions in the different coverages and different cells. The first time through, all the modeling was done in my shop. This time through, we've broken it up into

pieces, and it was done in different companies. So we had to pay a lot more attention to how it was done and that it was done consistently. Al Ford is chairing that subcommittee.

We have a Database Subcommittee chaired by Donna Novak. The database group is gathering to which data we can apply the resulting formula in order to determine how reasonable it is. That's been somewhat difficult because a lot of the data are confidential and we can't use the NAIC's database. The data is not quite ready, but should be within a few months.

We have another subcommittee called the Covariance and Overall Ruin Level Subcommittee chaired by Daryl Knapp. That group is responsible for looking into the theoretical basis of covariance. You're probably familiar with the existing life formula having a covariance adjustment in it. There were a number of issues related to that, especially as we began rolling in other kinds of health insurers. That subcommittee was charged with addressing those issues and to try to determine where the overall level of ruin should be.

We are stressing in our report that we are not making recommendations as to the absolute level of surplus or capital. We are developing relativities between coverages to find a consistent basis that will reflect differences due to risk, but not necessarily the overall level, which is something that needs to be determined by the NAIC.

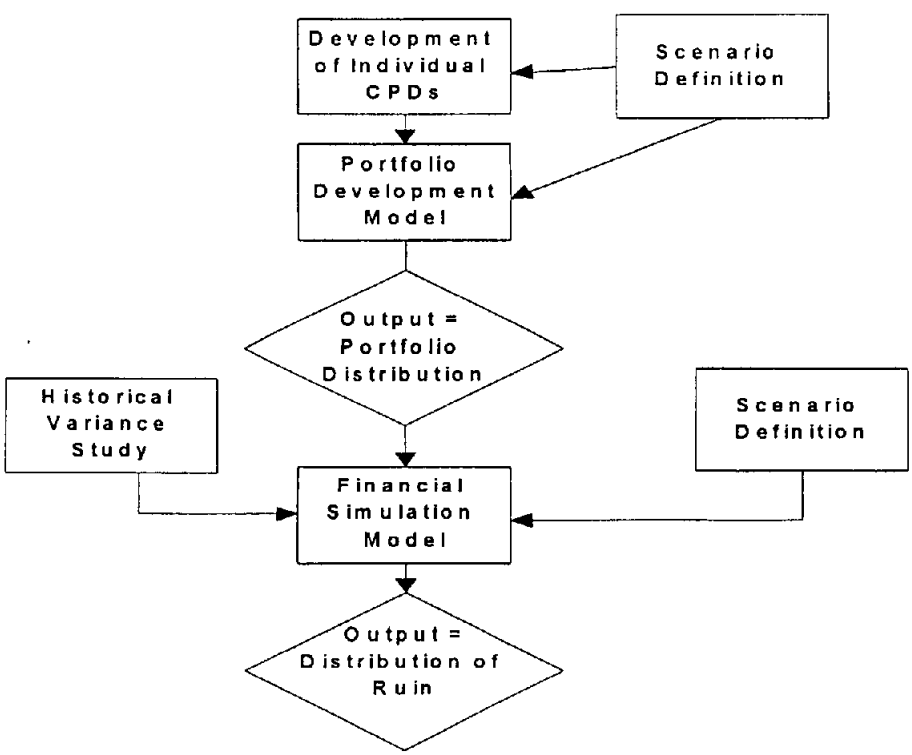
The Model Structure Subcommittee is chaired by Bill Thompson. That group was charged with addressing the structure of the stochastic model itself. There's one more, which is the Executive Formula Subcommittee, which comprises the subcommittee chairs, Peter Perkins, who is the Vice Chairperson of the overall task force, Commissioner Wilcox, and me. We formed the Executive Formula Group to take all the pieces and try to put them together.

The current group comprises 12 State Health Committee members from the Academy, 18 regulators, and 42 other participants. It grows daily. Actually, many of the folks who were cynical have turned around and have been working cooperatively. I think we have a pretty good momentum going as far as cooperation is concerned. Everyone seems to now understand the model and how it's used, and we're progressing very nicely.

Chart 1 is a flow chart of the modeling process. To just take a minute to talk a little bit about the technical side of this, we have something we call the claim probability distributions (CPDs). These are the density functions and the claim probability distribution related to an individual person, and that's one of the two starting points for the model.

CHART 1

Modeling Process



From that we generate a portfolio distribution, which is the expected claims for a given portfolio of policies of a certain type. To get there, if it's group insurance, for example, we need to make up a group of individuals, then take a look at the financing arrangements related to that group. Finally, we develop an expected distribution of the results of the financing mechanism. We call that the statistical variation because it's purely based on a theoretical statistical model.

We then bring in the historical variation, which is a study of the historical fluctuations in the financial results of a typical line of business related to the model cell we're doing. As we discovered before our June 1994 report, the historical variance includes the statistical variance. In other words, the results that a company might be achieving over years is made up of many things. One of those things is the chance results will fluctuate from year to year for no apparent reason.

We then had to find a theoretically valid way to take the statistical variance out of the historical variance so we could treat the two separately in the model. As you can see, it became rather complex and that's why it has taken us a while. But it is, I do believe, a big step forward in the theory and practice of how these things are modeled.

This sample page of output is a collection of numbers (Table 1). It's a grid that generates the seven years of financial results that we would model for one iteration for one cell. We identify random number generators, pick out a random number, and apply it to the statistical variation model, the portfolio distribution. We pick another one for the historical variation, put them together, apply a rating mechanism to it, and accumulate it.

TABLE 1

Model Cell Number M-4A

Financial Results from One Monte Carlo Sampling

Beginning Surplus	1,197,000			Surplus Target (% premium)			10.00%
End of Year	1	2	3	4	5	6	7
Target Loss Ratio	82.00%	82.00%	82.00%	82.00%	82.00%	82.00%	82.00%
Exposed Aggregate Premium (000's)	11,970,000	11,970,000	11,970,000	11,970,000	11,970,000	11,970,000	11,970,000
Operating Gain before Dividends (000's)	1,444,164	261,523	847,151	(91,790)	210,974	(459,802)	106,249
Dividends (000's)	1,444,164	261,523	847,151	0	119,184	0	0
Operating Gain after Dividends (000's)	0	0	0	(91,790)	91,790	(459,802)	106,249
% Gain/Loss (before dividends)	12.06%	2.18%	7.08%	-0.77%	1.76%	-3.84%	0.89%
Actual Surplus (000's)	1,197,000	1,197,000	1,197,000	1,105,210	1,197,000	737,198	843,447
Change in Surplus from Prior Year (000's)	0	0	0	(91,790)	91,790	(459,802)	106,249
Target Surplus (000's)	1,197,000	1,197,000	1,197,000	1,197,000	1,197,000	1,197,000	1,197,000
Target Profit	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Trend Miss (% Prem)	-18.82%	5.39%	-2.51%	17.63%	3.76%	5.19%	3.30%
Statistical Miss (% Exp Claims)	4.03%	7.56%	-0.06%	-4.49%	-6.09%	5.51%	4.90%
Statistical Miss (% Prem)	3.31%	6.20%	-0.05%	-3.68%	-4.99%	4.52%	4.02%
Observed Trend Movement	-16.13%	8.34%	-8.25%	13.35%	2.35%	15.72%	2.81%
Claim Level							
- Accumulated Trend	0.81	0.86	0.83	0.96	1.02	1.07	1.11
- Company Specific	0.84	0.91	0.83	0.94	0.97	1.12	1.15
Premium Level	0.92	0.89	0.86	0.90	0.94	1.04	1.12
Minimum Surplus => 0	737,198						

Phase-in factors allow you to recognize at various points subsequent to missing on your premium level and reflect that information in premium changes over the years. That information accumulates and develops this financial situation for seven years. That is done for each of the perhaps 150 cells. There is one iteration for each of those cells, and there are 1,000 to 5,000 iterations done for each of the cells. From that we measure the probability of a ruin. If a company goes bankrupt any time in that period, then it is ruined; and we count that as part of the probability.

The first time through we had the 84 cells. We took the results and interpreted them. The interpretation was something that didn't seem right here and things are a little screwy, so our report was made a preliminary report. We indicated that we needed to work further on it, which is what we're doing. The results were coming out so high in the first report because we hadn't separated the statistical risk and were double-counting it. The historical variation and the statistical variation were both added in, and we were getting some pretty high ruins. We chose a 15% probability of ruin for that preliminary report. We're now shooting for 5%, and we've changed some other things as well.

At this point, we still need to finish the stochastic modeling. We need to come up with our final formula. We're going to do that testing, and the subcommittee has the database testing to be able to see what the real life impact is of these things, and to expand the documentation so that others will be able to duplicate or expand on what we're doing so it can become a useful methodology.

I'll describe a little bit about what the September 1994 report has in it. There is an executive summary, an introduction, and considerations in developing the formula, all of which was our original conceptual documentation and still is. There wasn't too much attention paid to it between June and September, which tells me that we probably did a fairly good job of addressing those issues. There is a discussion of the issues and a description of the model and the data. I would need more time than I have to give you a good introduction to it and an understanding of it.

Actually, at this point we also have to finalize the formula. What I'd like to do is go through some of the factors so you understand the structure and how things are going to work, even though we don't have actual numbers to put in it. There are some appendixes that are going to be attached to the report. The first is the results of the modeling, so you'll be able to tell exactly where things came from.

I personally believe that this is going to be a good, useful tool for insurers to use to develop their own risk-based capital formulas and to allocate surplus within a company. This model can be used by a company and customized to reflect its own situations. We've had to draw some generalizations. Even though we have this large number of cells, we've made generalizations about things like how long it takes to respond to trend changes. For example, if you miss a medical trend, how long will it take you to respond to it and get it in place. This will vary from company to company and state to state depending on what your situation is. You can take this model and modify it for your own purposes and be able to customize it and get a much more fair or equitable distribution of surplus between lines of business.

The historical variance distributions are going to be included in the model. We're going to discuss certain technical issues like how we pulled the statistical variance out of the historical variance. There will be a sample iteration of one cell, which is like the one I showed you up here. One of the changes is that we've built in the ability to have tax carryforwards and carrybacks, which impacts the probability of ruin.

The original letter from Commissioner Wilcox asking us to do this (which I should have passed off to somebody in December of 1993), the 118 responses to the issues concerning the preliminary report and formula, and copies of the coming report can be obtained from the Academy. You can write or call Christine Cassidy at the Academy of Actuaries office, and she can get you a copy of the latest report. The phone number is (202) 223-8196 x145. For those of you who weren't aware of it, this latest report certainly should replace the June report. It's better and more recent and includes more useful information than the June report, and it is more reliable.

The first of some of the aspects that we've developed is risk category C-1. It's the only C-1 element that we've addressed, and it has to do with assets used to provide medical care. This was a major issue for some of the HMOs in this country that are affiliated with or own facilities that are used only to provide care. They didn't feel

assets used to provide medical care should be treated as an invested asset, similar to what might be done by a life insurance company.

We initially agreed with that. The June report had a factor of, I think, 5% in it. The invested real estate factor, I think, is 10%. The HMOs wanted it to be 1%. We assigned a subcommittee of a number of HMO people who weren't able to come to any conclusion or find a good rationale for changing it, so at the moment we're back at the invested asset level of 10%. Even though there's a question mark here, that's at least where the current direction is going.

One major change is to no longer have medical or major-medical-type coverage be a single factor. We are now going to grade that factor by the level of managed care. Because managed care has the ability to shift some of the fluctuation or ruin risk to the providers of care or to others, we thought that needed to be reflected in the formula. That led us to ask how we are going to measure that. We ended up finding that the best way to approach it was to base this factor on incurred claims rather than earned premiums, because it is much easier for a health insurer to be able to identify the dollars going out the door by type of managed care rather than the dollars coming in.

If you think about a point-of-service-type contract where you have a premium coming in, but you don't really know how it's being paid or who it's being paid to under the systems used by many health insurers, you'd have to take that premium and allocate it between the different lines. That's not necessarily easy to do. The claims, on the other hand, when you're writing checks or making payments out are usually a pretty clear trail. So far, we've received feedback that says that that's true.

We've changed from premiums to claims, and we're going to be providing managed care credit as well. We also tried to define what major medical was. It's admittedly a very rough definition, but we said, if you have copayments or self-payments being

deductibles, copayments or coinsurance that's less than 50% of the value of the total medical care, and if the deductible is less than $2,500, then it's major medical.

Part of what we changed recently was some of the wording based on input from some of the HMOs. It's essentially the same intent. There's a credit against major medical coverage for managed care. The first one is contractual agreements as fixed payments per service per day or per episode of care, like per-diem-type payments.

This is the smallest credit that you would get, because it has the least impact of all of the different types on the risk that's involved. It cuts down a little bit on the risk of claim fluctuations by fixing the cost per benefit. We've reduced some of the variance just due to that variance in cost. You'll see it also is medical and dental. There's a comparable reduction or credit for dental coverage with the same sort of benefits.

The second category is where there are significant withholds or bonuses. If you understand the way a withhold works, an insurer holds back some payments that would have been paid to providers or doctors, and only pays if the issuer doesn't need it to cover the claims. The fluctuation results will insulate themselves and reduce the risk, so therefore, we give it a credit in the form.

The next one is capitation payments, which is the second highest credit being given. That is a credit where an insurer will pay a capitation, which is essentially a contract with a provider to provide whatever care is needed, for a service of a given type for a given period of time. Payments are made monthly. Say a capitation is to a doctor to provide all the primary care of an individual. That shifts all of the utilization risk, as well as the cost risk to the provider and makes the cost pretty predictable to the insurer. Therefore, there's a much higher credit given.

The last category is noncontingent payments made to providers of medical care, which is intended to be like salaries. Those are for staff model HMOs, and seem to have the lowest fluctuation of all. In fact, they have risks of a largely different nature than most insurers.

We've also split out stop loss. The existing formula, I think, had a single factor. We felt that it was important to differentiate between coverages that include hospital and those that don't under medical, and also by level of the attachment point of the specific stop loss. The higher the attachment point, the lower the expected cost to exceed that attachment point. The more volatile, the more variance you'd find in the expected claims. We thought we needed to reflect that in the formula, and it will.

For other coverages, it also varies by attachment point. This was intended to get at, for example, extended weight reinsurance or extended weight insurance for a long-term disability situation for disability carriers. It will, again, vary by attachment point for the same reason. Rather than try to quantify stop loss for each separate coverage, this is expressed in terms of the attachment point as a multiple of the expected claims, which we hope will be generalized enough to be able to apply to different coverages.

Aggregate stop loss and minimum premium coverage, again, should vary by attachment point. The loss will vary by group size because we're no longer talking about the individual. We're talking about the distribution of the group's claims. The larger the group is, the smaller the relative variation.

The next category is the Administrative Services Contracts (ASCs), and Cost Plus Contracts where there is no insurance risk, except the risk that the employer is going to go bankrupt or somehow not pay. There's a credit risk involved, and there would be a small factor attached to the premium equivalents, which is the self-insured part, as well as the retention.

Reinsurance ceded has been beefed up since our June report. We think we have it right. We're looking for input on it. There's a separate treatment of coinsurance and nonproportionate situations. It feeds back on factors that would apply if the reinsurance were direct insurance. We provided a credit against the direct factors for the reinsurance.

Part of our original charge included health alliances and accountable health plans with unspecified and unquantified risks associated with them. At that time, it looked like there was going to be a Clinton Health Plan, and these were going to be some new entities. That doesn't seem as likely now, but nevertheless it was part of our charge and is built in as much as possible.

We've put a factor in that's largely judgmental, but says it's 150% of the average of the prior three years. I think this was changed recently. It was 150% of the average of the prior three years of assessments. I think it may now be 150% of the difference between the biggest and the lowest assessment in the last three years, or something like that.

We do address, to some extent, the issue, which is, to what extent should the reserve basis be included in the risk-based capital formula? We had extensive discussion, and there were a lot of reasons why. We decided it wasn't a matter of overlooking it. It was a matter of policy decision by the group to not include the allowance in the formula for reductions in capital for excessive margins and reserves.

There is one aspect of RBC that might be viewed. I don't know if it's gong to make the cut at the NAIC level, but this aspect essentially says, if you don't have an actuarial opinion on the level of reserves, then you should probably be a little more nervous and should hold some higher capital. At least that's what we tried to do. The reason why this was more important for health insurance than life insurance is because there are not uniform reserve standards around the country for health

insurance. If you have a Section 7 opinion, which says you're holding the minimum reserves in the state, many states don't have minimum reserves and so that doesn't help. We thought it was important to have an actuarial opinion.

Dental mirrors the medical claims on a smaller scale. Dental is a lot less volatile. There's very little statistical risk involved with it. Dental managed care, again, mirrors the medical managed care. There is a volume adjustment, which essentially is a minimum capital adjustment that was set at the level of capital you would need for 8,000 lives. If you have less than 8,000 lives, you have to multiply it to query it upward as though you have 8,000 lives. That was largely a judgmental thing. It may end up being replaced by other factors or other numbers based on our modeling, but this was sort of a Delphi method. There were 30 or 40 of us sitting around, and we said, "What level of capital do you really think is needed in order to operate in the medical area?" We decided it was about two $1 million claims. You had to be able to absorb two $1 million dollar claims in the absence of reinsurance in order to feel comfortable that you could operate; and that's what that 8,000 lives is intended to represent.

Consider Medicare supplement. We've also expanded the list of other coverages. This is where some of the controversy came in. A number of the carriers that operate in these lines of business felt we shouldn't be messing around with these factors, but our charge was to mess around with them and so that's what we're doing. Although the June report did not contain size adjustments for many of them -- we just had a flat factor -- we will ultimately have size adjustments in most or all of them. The fact we didn't have them in June wasn't a statement that we didn't think they should be there. It was that the modeling wasn't sufficiently along at that point to be able to reflect it.

Long-term care is another coverage that will be included. We broke disability income into short-term and long-term coverages and have different factors for those.

Typically, the variance is different relative to the expected claims. I think accidental death and disability was included in June as an accident-only coverage and now we separate accidental death and disability from other accidental coverage.

Then we have a catchall of other health coverages with two factors: one for coverages subject to inflation and another for those that aren't. We decided at the last meeting that rather than trying to figure out what it means to say you're subject to inflation, any time we found a sizeable type of business that fit into this, we'd figure out another separate factor and pull it out. Otherwise, we have a lot of trouble trying to define it.

Another controversial element that I'm particularly proud of is the rate approval adjustment. Part of the modeling allows us to measure how long it takes to recognize, analyze, react to, develop a rate increase, file it, and implement it. That period of time is built into the model and is adjustable. If we adjust that to account for delays caused by prior rate approval process, we can quantify how much extra capital is needed to reflect that in order to get a consistent probability ruin. We've done that.

The first time through, we got a factor of 1.5; your capital would need to be 50% higher to get the same risk level. I think that reflected a three-month delay, if I recall correctly. Those assumptions are being discussed again, and we will be reassessing that. I don't know whether the factor will be as high, higher or lower.

I also don't know how the NAIC is going to feel about being told that prior approval is going to end up costing more money. Being an Academy group, we're somewhat divorced from the impact of our decisions, and we can sit back and smile at it and watch what happens.

Another element of the Clinton plan was premium caps. I only know of one person to whom I've spoken who seems to have had a real good knowledge of what those premium caps look like and how they would act. We certainly didn't on the task force. Fortunately, it appears to be dead anyway, so we avoided finding out what it looked like. We felt it had to be addressed, and we let the policymakers know that there would be a capital implication to having premium caps. If you won't allow premiums to go up, it increases the risk.

Premium guarantees, depending on the length of the guarantee period, are an important element. If you guarantee premiums for three years or trends, you're getting into a more risky level than you would otherwise. There's a lot of performance guarantees that you'll process claims within a certain period or with certain efficiency, and retentions are put at risk. We have a factor that is a percentage of the amount of risk under the contract that should be held as capital.

There's also a disability and long-term care reserve factor similar to what's in there now. In the June report, we probably didn't use a large enough portfolio in order to get rid of the statistical risk on disability income reserves, especially with long-term disability income being as enormous as it is. That's where most of the risk comes from, so that's being reevaluated, but it will most likely stay there. The factor won't stay there, but the structure will.

Rate stabilization reserves were enhanced a little. The existing formula didn't differentiate this way. We now differentiate between those rate stabilization reserves, which are useable for general purposes, and those that are only usable for a specific group contract. When it's only useable for a specific group contract, then you can only use it to offset the capital needed for that specific group contract. If it's available for it, then generally, you use it to offset.

For reinsurance assumed, the best thing we came up with was to say you get the same charge that the ceding company is getting as a credit. That way, there's a zero sum over the process.

Increased risk is to reflect the experience of a number of people on the group. It says that companies that have really gotten into trouble that have typically gone through a cycle where they suddenly put a whole bunch of new business on the books, didn't realize they were in trouble until all this new business lost a lot of money. This factor says, if you get too much risk too quickly, you have to hold extra capital, and it flags the problem sooner than it would have happened otherwise.

There's a guaranteed fund assessment that's based on the relative risk of the marketplace to be determined by the commissioner in that state. It's just sort of interesting. If the market gets in trouble, the factor would go up, and you'd have to hold more capital because everybody else is in trouble.

We still have to finish our modeling. We have set a schedule for that modeling. Let me give you one more piece of background. In our recent meeting, we got right down to the wire, and we were still obliged at that point to be providing a report that the NAIC could use for exposure soon. We were pushing it right to the end. A couple of hours before we ended the meeting, Commissioner Wilcox said, "You're right, you're not ready; so let's not have any numbers in this report this time."

The group went from a deadline of finishing the modeling over the weekend and with three or four normal working days to about a three-week period. We still expect to finish, and people are still committed to have results about two-and-a-half weeks from now for the formula committee to use and put together. I would expect that we will be having numbers within a couple of months that you'll be hearing about. We hope be able to present a final report to the NAIC at its December meeting in New Orleans.

HEALTH -- NAIC EMERGING ISSUES

MR. J. ALAN LAUER: I am going to review briefly some changes to the annual statement blank, some changes in health reserve standards, and health practice notes distributed by the Academy.

My first topic is the Accident and Health Policy Experience Exhibit, which has been revised for the 1994 annual statement. Possibly the most urgent news is that the exhibit of experience in 1993 will be required to be filed by May 1, 1994. In past years, this exhibit was due by June 30.

There are significant changes to the form of the exhibit and also to the instructions. The exhibit has two areas, which can be called detail and summary.

There are a few changes in the columns of the detail area, and an increase in the number of sections for kinds of coverage. There will be three new sections for Medicare supplement, long-term care, and specified or dread disease forms. For hospital, medical, and surgical forms, there will be separate sections for reimbursement policies and for indemnity policies.

For Medicare supplement and long-term care, summary data for group and individual will be reported, but data for each policy form will not be reported in this exhibit because it is reported in other exhibits.

There have also been changes in the detail area of the exhibit in the breakdown by type of renewal provision. Collectively renewable has been replaced by mass underwriting basis, and nonrenewable for stated reasons only has been replaced by nonrenewable. Collectively renewable other than mass underwriting basis, and nonrenewable for stated reasons only, are now included in all other.

The summary area of the exhibit, which formerly consisted of three lines, has been expanded to a separate page with two parts. Part 1 is similar to the former summary, but lines have been added to separate U.S. forms from other forms. This enables the summary to reconcile both to the detail area of the exhibit, which is based on U.S. forms, and to Schedule H, which includes all business. Part 2 of the summary area shows number of policies, expenses, and dividends for each of the kind of coverage sections in the detail area.

The instructions for this exhibit have been expanded from two pages to five. Much of the expansion is helpful, but you will need to read the new instructions carefully. There are a few typographical errors and some statements that may cause some confusion. For instance, Instruction 9 may imply that data must be reported separately for some Medicare supplement policy forms, although it is evident from Instruction 2 and Definition 2 that this is not the case.

Even if you read Definition 6 very carefully, you are still likely to miss the intention of the regulators, which is that group insurance marketed to individuals through an association or a trust is to be classified as mass underwriting basis and not as group.

The NAIC recently mailed out the package of instructions for the blue blank filed by life insurance companies. By mistake, the instructions for the Accident and Health Policy Experience Exhibit are the same in that package as in the package for the yellow blank filed by property/casualty companies, including a cross reference to an exhibit for the yellow blank. The NAIC plans to send out revised instructions for the Accident and Health Policy Experience Exhibit to correct the mistake. Those of you who work on the blue blank should be careful to seek out the revised instructions.

These changes to the Accident and Health Policy Experience Exhibit are part of a larger project which may ultimately result in similar changes for Schedule H and

Exhibit 9. Work on Schedule H and Exhibit 9 has been sidetracked for the time being, and it is not clear when it will be taken up again.

Another change for the 1994 annual statement is a revision of Schedule O. For a number of years, Schedule O tracked the development of incurred losses for noncancelable, guaranteed renewable, and nonrenewable for stated reasons only health insurance. For the 1994 annual statement, Schedule O has been expanded to three parts. For each of the major lines of business in Exhibit 11, other than group annuities, Part 3 of Schedule O shows the total amount of claim reserve and liability in Exhibits 9B plus 11, and also the methodology used to arrive at that amount. The methodology is (1) development, (2) standard factor, or (3) other. Parts 1 and 2 of Schedule O must be completed for any line of business for which the methodology is development.

Part 2 is the same as Schedule O in the 1993 annual statement, except that there are three separate sections, labeled group accident and health, other accident and health, and credit accident and health. Companies are expected to add sections for any other lines of business for which development methodology is used.

Part 1 of Schedule O is similar to Part 2. Like Part 2, Part 1 is labeled "Development of Incurred Losses," but Part 1 actually shows the development of paid losses.

The motivation for this change is partly to give regulators and auditors a bit more data to test claim liabilities, but there is a further motivation. The instructions for the 1994 annual statement include a requirement that the appointed actuary, in the statement of actuarial opinion, state that asset, in-force and claim data relied on by the actuary have been reconciled to particular Exhibits and Schedules in the annual statement, including Schedule O.

Now I want to move on to the Long-Term-Care Experience Reporting Forms. These forms have been in existence for two or three years, and I don't believe there are any changes for the 1994 annual statement. Changes had been requested by the Health Insurance Association of America, and are on the agenda of the NAIC Blanks Task Force for the 1995 annual statement. These changes are likely to be formally adopted by the Blanks Task Force later in 1994.

Some changes proposed in the summary are for Forms B and C of the Long-Term-Care Experience Reporting Forms, but the major changes are in the instructions. There are a number of changes intended to clarify the instructions, but the most important change is a reduction in the number of policy forms that would have to be reported separately on Form C. Form C requires the same information by state that is shown at the countrywide level on Form B. A particular policy form would have to be reported separately on the Form C for a particular state only if it meets one of three criteria. The criteria are based on (1) the relationship of the premiums for the form in the state to premiums countrywide, (2) whether premiums for the form have been increased in the past five years, and (3) whether a state has specifically requested that experience for a form be reported separately.

Moving on to reserve standards, there is a proposal to modify the minimum reserve standards for individual and group health insurance contracts with regard to the reserve method for long-term care and for return of premium benefits before the 20th anniversary. The NAIC model standards presently require that minimum reserves for these benefits be calculated by the one-year preliminary term method.

At a recent meeting of the NAIC Life and Health Actuarial Task Force (LHATF), Larry Gorski of the Illinois Insurance Department questioned whether it was intended, when this rule was adopted, that it be applicable retroactively, that is, to policies issued before the adoption of the rule. Larry proposed a revision to the standards to provide that one- year preliminary term would apply to policies issued

since January 1, 1993, and two-year preliminary term would apply to policies issued before that date. The LHATF agreed to consider the proposal, but there was no extended discussion of it at that meeting. At the same meeting, several members of the LHATF expressed opposition to the idea of two-year preliminary term as a standard for future issues of long-term-care insurance.

Another reserve item concerns some changes that were made about a year and a half ago to the NAIC model minimum reserve standards for individual and group health insurance contracts. I'm not sure that all interested actuaries are aware of these changes. They affect mainly reserve standards for group long-term-disability (LTD) insurance claims, although other plans could be affected.

There are two changes, both of which relate to claim reserves. The first concerns the morbidity standard. The standards prescribe disability tables for claims reserves, but for claims with duration from date of disablement of less than two years, the standards permit reserves to be based on the insurer's experience. The change is that for group disability income claims with duration of two to five years, reserves may based on the insurer's experience, with the approval of the commissioner. The commissioner is supposed to give approval only if the company has a very large volume of claim terminations on which to base the experience.

The second change has to do with the interest rate standard for claim reserves, and will affect more companies. In the past, the rule has been that the maximum interest rate for claim reserves is the maximum valuation interest rate for a whole life policy issued on the same date as the claim incurral date. This rule still applies in most cases, but a different rule now applies for claim reserves on policies for which a contract reserve is not required. If no contract reserve is required, the maximum interest rate for claim reserves is 1% (that is, 100 basis points) less than the maximum valuation interest rate for a single premium immediate annuity issued on

the same date as the claim incurral date. In the NAIC model, the new rule is not prospective. It applies regardless of the claim incurral date.

I am now going to play a dirty trick on you by raising an ethical question and not answering it. Some states have adopted the NAIC model standards including the new rules about the morbidity and interest rate standards. Some states have adopted the NAIC model standards, but without the new rules. Some states have an older regulation or no formally published standards at all for health reserves.

The question is this: "Suppose a company bases claim reserves for group LTD on an interest rate that is 1% less than the valuation rate applicable to a single premium immediate annuity. Can the appointed actuary sign an opinion to be filed in a state which has adopted the NAIC model standards, but without the new rules, and state in the opinion that aggregate reserves meet the standards of the state in which the opinion is filed?"

My next topic is Health Practice Notes. As you may know, a work group was organized by the Academy's Committee on Life Insurance Financial Reporting and published a set of practice notes at the end of 1992. The same group published a revised set of practice notes at the end of 1993. These practice notes are not official dogma, but are intended to provide assistance to appointed actuaries by supplying examples of some common approaches. The aforementioned practice notes are concerned primarily with life insurance and annuities, and only peripherally with health insurance.

A separate work group was organized by the Academy's Committee on State Health to develop health practice notes dealing with issues specifically relevant to health insurance. The March 1994 issue of the Academy's newsletter, *The Actuarial Update*, had a notice on page 6 that the resulting health practice notes, which are dated December 1993, could be obtained from the Academy's office. As an aside, I suspect

that I am not the only one who missed that notice. I think it would be a good idea if the Academy would include a reference to a notice like that in the table of contents on the first page of *The Actuarial Update*.

Getting back to the health practice notes, there are six of them, identified as 1993-1 through 1993-6. The first one is entitled "General Considerations," while the others treat questions relating to particular lines of business, namely, small group medical, large group medical, individual major medical, individual disability income, and group LTD. Again, these are not official standards of practice, and you are not even required to agree with everything in them. They do provide useful discussion of a number of practical questions that arise in preparing either Section 7 or Section 8 opinions and the actuarial memorandum that supports a Section 8 opinion. If you have not yet obtained a copy of these health practice notes, you can get a set at no charge by calling the Academy's office in Washington.

It appears that there have not been many comments on the health practice notes, so there are no plans at this time to revise them for year-end 1994. I understand there are plans to revise the life practice notes.

MR. SANFORD B. HERMAN: I have a question for Bill on risk-based capital, in particular on administrative services only (ASO) types of situations. One of the risks is the potential that the fees being charged are less than adequate to cover the expenses to administer an ASO. In fact, one of the footnotes in the NAIC blanks seems to try to get at that. The question is, is there any intent to have a factor to be applied to the fees? I'm aware of at least one situation where a company in the northeast seemed to have gotten into trouble by this situation.

MR. BLUHM: The group identified expenses as a potential risk, but didn't feel that it was significant enough relative to the other risks to have it be part of the formula, other than with two caveats. One is the credit risk and the other is where the retentions are contingent on performance. We would certainly entertain any sort of commentary from you, if you want to send it to the task force.

MS. CYNTHIA S. MILLER: First of all, I want to say I applaud your efforts with risk-based capital, and now I'm going to criticize you on some of them. You had quite a few comments where you said the data were available on the annual statement. I want to clarify that some of the data aren't available in the forms you're looking at. On one item, you were looking at experience rate credits, and you said, yes, those data are available. Well, they are available in an aggregate number, but applying them piece by piece to get a credit account by account is a tremendous undertaking.

The other comment I wanted to make was you said that on reinsurance you would assume that the credit taken by the ceding company should match the risk picked up by the assuming company. I don't see that that necessarily makes sense. I think risk-based capital is a situation where some of the parts are not necessarily equal to the whole, or vice versa. If you have a reinsurer assuming quite a bit of stop loss, I think its risk in aggregate on stop loss is somewhat less than ceding companies where they

each have a little piece that they're ceding off; so I don't necessarily agree that you should have a one-to-one match there.

MR. BLUHM: On that last point, there isn't exactly a one-to-one match. The example you used, I think, is sort of a size adjustment issue, and we have tried to address that. As to whether things are on the statement or not, first a generalized response. We knew, when we were going in, that we wouldn't have what we needed on the annual statement. Part of our charge was to ignore that and, when we got done, to figure out what supplements or changes needed to be made in the annual statement to get to where we wanted to get to; not that the NAIC was committed to make those changes, but that our charge was to design an ideal formula and not be held back based on what was in the statement.

Regarding the rate stabilization reserves for individual policies, we've tried to address that. I'm trying to remember where we came out, because I know we discussed having a company approach, and I think this is where it is. Companies can decide whether it's worth the effort or not; that if you want to try to get the credit, then you can do it company by company or policy by policy. That way, you might be able to take credit. Say you had five jumbo policies, but you didn't want to go through it for the 200 others that you had. You didn't have to. You could take the credit for the pieces you wanted to.

MR. SCOTT R. SIEMON: I also have a question for Bill regarding claim reserve margins or credits or extra claim reserve margins. Since there seems to be a theoretical appeal to allowing for a credit, it would seem to be bad public policy to create disincentives for insurance companies to hold conservative reserves on the statutory basis. The risk-based capital, while it should not be used to measure companies, evaluate companies, or compare companies, practically speaking it does influence the process. I'm a little bit curious as to what the rationale is for not allowing some form of credit.

MR. BLUHM: I think the major aspect was that we didn't find any way you could do it, because how are you going to determine how much margin there is in a reserve? There are margins in interest rates, and there are margins in morbidity and mortality, and there's company experience, and you don't know when the information went into the table. I think it was also a policy decision on the part of the NAIC. Commissioner Wilcox decided he wanted the policy to go that way. We could have argued the policy, I guess, but didn't really feel that was appropriate.

MR. SIEMON: The one way I thought of doing it would be that you could have the appointed actuary or somebody attest to a particular reserve level as being adequate based on normal reserve adequacy testing; an example being, say, the statutory minimum was a two-year preliminary term. You could perform cash-flow testing of the valuation to prove that that would be an adequate reserve. But the company chose to hold a one-year preliminary term to create greater conservatism. If you could put together a presentation or a proof or an actuarial report showing that the lower reserve was still adequate, then the difference would seem to be provable conservatism.

MR. BLUHM: Yes. It would have also, though, created a whole lot more work and a lot more effort, and required regulators to start reviewing a whole bunch more reports every year from every company, which really didn't seem feasible for the benefit you'd get. I know there are other implications, but it also seems that, if the company wants to hold extra margin, how much. What are the enormous negatives about holding it as surplus in capital versus as margin in your reserve? We're not changing corporate philosophy necessarily, just what you call it.

MS. MILLER: Have you looked at the P&C formula? The P&C formula, especially for claim reserves, sort of does exactly that. It compares your historical development to what you needed and also to the industry average in order to try to develop whether your reserves are better or worse than the industry. Now, I don't

particularly agree with that part of it, because the P&C industry is notoriously underreserved, so being better than average doesn't mean you're adequately reserved. At least on claim reserves that would be something that would be fairly easily obtained from Schedule O or Schedule P of the P&C blank, and that you have a relatively impartial view there that says, yes, historically we have been adequate or more than adequate.

MR. BLUHM: Yes. The answer to your question is, yes, we did. We looked at it, and we decided not to pursue it for those reasons that I was talking about -- that P&C coverages tend to be very different in nature. There are no tabular reserve bases they can rely on for long-term claims. They rely much more heavily than we do on development of those reserves and the margins that are in them as being an individualized approach.

MR. RICHARD S. MATTISON: Is the health risk-based capital model consistent with the dynamic financial condition analysis handbook and its methodology? If it's not consistent, why is it not?

MR. BLUHM: I guess I'm not personally aware of any reason why it wouldn't be. All we were primarily doing is expanding and enhancing the existing life and health formula. I've heard that before, but no one has come up with any specifics that says here's where it's not.

MR. MATTISON: I think one area it's not consistent is that the dynamic financial condition analysis handbook clearly indicates the use of reserves in evaluating such things as risk-based capital.

MR. BLUHM: To the extent that the current life and health formula does, then we do, too, I guess.

MR. MATTISON: My question is in connection with the dynamic financial condition analysis handbook which the Society of Actuaries is producing, not what the life risk-based capital group did.

MR. BLUHM: Oh, I see. I apologize. I'm addressing it from the point of view of what our charge was, which was to develop a risk-based capital formula. I guess we have not addressed the dynamic financial solvency analysis handbook. To be honest, I don't think I have one, and I don't think I've read it.

MR. MCLAUGHLIN: I think that would be a good comment to provide to Bill Bluhm's task force, because I think the members would value that and other forms of input. I have one quick question for Bart. I was curious about the linkage between the one-year, preliminary-term method and the two-year, preliminary-term method. Is it not correct that the IRS defines the appropriate method as that method prescribed by the NAIC? Therefore, if the NAIC adopts one-year preliminary term partly through your task force efforts, that would, by definition, be the right reserve for federal income tax purposes.

MR. MUNSON: I'm not sure if that would do it. We didn't assume so.

MR. LAUER: I think, Mike, that the Internal Revenue Code says that the commissioners reserve valuation method (CRVM) is what the NAIC says it is, but in a different place it says for health insurance you don't use CRVM. You use two-year preliminary term, and it just says flat out two-year preliminary term.