1995 VALUATION ACTUARY SYMPOSIUM PROCEEDINGS

SESSION 26

Long-Term Care

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LONG-TERM CARE

MR. BARTLEY L. MUNSON: The panel consists of Jim Robinson, from Coopers & Lybrand, Burt Jay from Mutual of Omaha, and I. The three of us were on the Long-Term Care (LTC) Insurance Valuation Task Force. We worked together for about four years on this effort.

We're not here to report on the task force's final report itself; you've had opportunities to see it before; you'll see it some more; and it will be discussed a couple of times during this session. Jim will go through the companion valuation diskette because we think it's important to get that out for the record and to get an understanding of some of its key features.

The final report was accepted by the Board of Governors on May 11, 1995. We presented it to the National Association of Insurance Commissioners (NAIC) Life and Health Actuarial Task Force on June 2, 1995, in St. Louis. It was discussed at a panel session in Vancouver at the Society meeting on June 27, 1995. And it is proceeding on the NAIC front. It is going to be published in the *Transactions*; I understand that is the right forum to generate discussion and for the task force to respond to that discussion. We really hope that we'll be getting some of you and others to discuss it; we're eager for it.

The final report will be reformatted slightly in the *Transactions*, which will be done by the Society's Barbara Simmons. The current issue of *The Actuary* has a notice for the preprints of the *Transactions* articles this fall, and you should either fill in that form for this preprint or phone the Society office. However you request it, I am told that we'll get the preprint in the *Transaction* format around October 15, 1995, and then all of you will have until January 15, 1996 to discuss it and react.

The diskette has been sent from the Society office to some 20 or so of those who have sent in the money and requested it. It is going out to our task force and the NAIC task force. If you want a copy of the diskette that Jim will be going over, please request it.

In the final report, some of our recommendations are hard to find because we intentionally did not pick them out and put them in bold. Some of them are of the tone "the valuation actuary must consider"; that was the umbrella under which we were told to operate. Is that a recommendation or isn't it? Some statements were very specific, and those are more clearly recommendations. I couldn't tell you the count, but it doesn't matter; you'll know them when you see them. The question arises, naturally: "Recommendations to whom?" They certainly are recommendations to the valuation actuary, and I think that's the right answer. They are to all of us who might serve as valuation actuaries and work with LTC. They are probably also in a sense to the regulators from the Society of Actuaries, where we said: "This is what we recommend the valuation actuary should do." It is not a standard of practice; standards fall under the role of the Actuarial Standards Board.

First, I must say the last four years were truly a task force effort. You've heard me say that publicly before. We had 15 members of the task force and we had 17 meetings of at least a day each. We had meetings where all 15 actuaries were there for the full day, more than once. I don't know of any professional activities where there was the dedication that your peers had to this effort. There was no most valuable player either. But I must say a special thanks to Jim when we're talking about the noninstitutional claim costs and their methodology and the companion diskette. John Wilkin had a lot to do with the beginning of that diskette. The task force received drafts of it and were asked to review it, and it certainly was a collegial effort.

MR. JAMES M. ROBINSON: I'd like to talk about the characteristics of the valuation diskette that is available from the Society office. You can always give me a call in my Milwaukee office; I'll be glad to chat with you about the software any time. If you have specific problems with the software that you think other folks may be also having, I'd appreciate it if you'd funnel those comments through the Society office. Jack Luff will be glad to take all those comments together and deliver them to me en masse; I'll get the answers to you as soon as possible.

Maybe I can start with the objectives of this software; otherwise it's very easy to get off on the wrong foot. There were two things that the software was intended to do and one thing that it was not intended to do. First of all, it was certainly necessary at some point to develop a tool the task force

could use for its research. We needed to see some numerical implications of some of the recommendations that we were discussing. Unfortunately, the software development timing was rather late in the process; when we would have liked to have had the software when we were talking about whether the recommendation should go this way or that way, we were still in the process of putting together the software. It wasn't until the last six months or so that I felt comfortable with the software. So we probably could have used some coordination time or some lead time on the software development, with the assistance of hindsight, before we got into some of the recommendation discussions, but I think it all ended up alright.

Second, in the process of that development, we needed to demonstrate one possible way of implementing the recommendations that you see in the task force report. The software itself is not the standard and it does not embody the recommendations. You should feel free to implement the recommendations in the task force report in ways other than they have been implemented in the software. This is simply one approach to implementing those recommendations.

We have what I consider to be a pretty good piece of software, although if you read the source code, it's a little bit of a "spaghetti" code. You might have some problems following the logic, but I'm pretty pleased with the way the software has turned out considering the objectives.

One other thing that the software is not intended to be is a production program that a company can use to mass generate large numbers of reserve factors for its financial statements. It really was intended to be a demonstration of the calculations that might be used. If you take the software and run it on a machine that doesn't have a math coprocessor, you'll probably find pretty quickly that it will not produce numbers in the kind of time frames you'd like.

Here is a little bit about the history of the software. It started out as a FORTRAN program. John Wilken, along with others, made the modifications to the 1985 National Nursing Home Survey tables that are in the *Transactions Reports*. John had an existing FORTRAN program that did calculations involving institutional benefits only; I believe he used it originally in pricing. He took that code and reformatted it initially to do reserve calculations for institutional benefits using the 1985 tables. We

started with that. John and I decided that not a lot of folks had FORTRAN compilers; at the time, many people had DOS on their personal computers (PCs). If you have DOS version 5 or more, Q Basic comes with the package, so we decided to try to develop the code in a language that was very similar to Q Basic. I selected Visual Basic, which is sort of a super set of Q Basic. Once you get the source code, and if you have Q Basic on your PC, you should be able to modify the input and output routines and leave the number-crunching sections pretty much intact. You should be able to make your own modifications to the code and run them locally, without having to order a new or a revised version for every change that you'd like to make in the code. The Visual Basic environment provided a couple of nice features. First is the fact that it's more or less similar to Q Basic and, therefore, it's very portable; a lot of people should be able to use that source code. And second, Visual Basic has some built-in features for building input/output screens, so the user interface can be constructed very quickly; we didn't want to spend a lot of time as task force members writing subroutines for reading input from the keyboard or from the screen and writing it out in a particular format to output files or to the screen. Since we elected to use it, it's gained quite a bit of popularity. There are a number of companies that are using Visual Basic in their pricing and valuation processes, and even outside the actuarial community Visual Basic has really taken off in popularity. I should indicate that this is Visual Basic for DOS. There is Visual Basic for Windows; if you try to run this source code under Visual Basic for Windows, you'll have to make some changes. They're not minor changes.

Once we had translated the FORTRAN code that John had put together, we started adding more features. In particular, we added noninstitutional benefits for home-care-type benefits and a couple of different forms of nonforfeiture benefits. And then we've also added some user conveniences. Initially, you could only run one issue age at a time, and we put the interface together now so that you can specify multiple issue ages and indicate the sex breakdown of the issue cohort. We've allowed for a different output format, so it can come to the screen; it can be saved in a text file, or it can be saved in a spreadsheet type file format. We've improved the documentation of what ends up in those files, and I think that the program for generating specific scenarios is pretty flexible in that regard.

We added the capability of saving the specifications to spec files that you can later rerun. I've added a batch capability so that, if you do want to set it up to run overnight, you can do that. You can interact with the screen, save all of the specifications that you like, put those out on disk, set up a batch input file, and let it grind overnight; you'll have all of your output in the morning. The last change I made to the program allowed it to continue if it should run into an error in any one of those batch runs. So if you've set up a sequence of ten runs and the fifth one bombs out for some reason, it will print an error message to an error file on your hard drive, and then it will go on with the sixth one; it won't just stop there.

I have a few words about distribution of the software. We had all kinds of ideas on how to get this to the actuarial community, ranging from using Actuaries Online to the actual approach that we've implemented, which is call the Society office, or send a note to the Society office with $200, and they send it to you. We'll see how this evolves in the future, but there were distribution expenses that had to be deferred. I would like to use Actuaries Online as much as possible for answering questions and posting answers to frequently asked questions. So if you have questions that you think other people might be sharing, send them through Jack Luff at the Society office, he'll get them to me, I'll try to work out the solutions, and we'll directly contact whomever has asked the questions; then we'll probably also post the answers on Actuaries Online. For the $200 you get the executable code and the source code. If you do need to know exactly how a specific calculation is being done, you should be able to go into the source code if you understand Visual Basic and see what logic is being applied.

There are no specific upgrade plans at this point. We'll have to see how the software is used and what kind of comments we get from users. If there's a repeated request for an additional module of some kind and we can fit it into our schedule, we'll certainly try to do something in the future. At this point, we have no specific plans to add benefit features or other calculations.

There's a user interface, which is a sequence of screens. Using the final report as a user's manual, it has screen images, and at the end, what's possibly more important, is there are some sample calculations. So if you have questions about how the program is actually doing the computations, the first place to look would be those sample calculations in the report. The second place to look,

and what's probably the last resort, is in the source code. (Some of you who have looked at the source code probably know what I'm talking about.) So, in addition to the user interface, which allows the user to go in screen by screen and specify the characteristics of the policy, the insured population, the morbidity assumptions, mortality assumptions, and so on, there are specification files in which you can dump these values so that you can recall them later, either one by one or in a batch environment. There are sequences of tables -- institutional benefit tables, noninstitutional benefit tables, and mortality tables -- that are read in for the computational run. Then there's the actual guts of the program, with the calculation routines. Finally, there are the output files. Those are the key components of the software.

The types of input that have to be specified are done via a sequence of screens. The user simply types in or clicks options on or off.

- There's a screen related to insured data, which are basically the ages of the individuals, the issue ages that you're interested in, and the sex. You can use 100% male, 100% female or mix them together if you like.
- There's a screen in which you select the mortality table.
- There's a screen related to policy specifications, probably the most elaborate screen of the bunch. It allows for different elimination periods, benefit periods for institutional and noninstitutional benefits, whether you have waiver, and the kind of inflation benefits that are to be included, and so on.
- There's a screen related to lapse assumptions and antiselection on lapsation. There's a discussion of the antiselection model in the task force report. If you want to get into the details of exactly how it's implemented, you can look at the source code, but the formula that's in the task force report is as good as any in explaining what the program is doing with these antiselection factors that you can put on the lapse input screen.
- There's a screen related to morbidity assumptions, in particular the institutional morbidity assumptions. You're basically stuck with the 1985 National Nursing Home table, but you can select all individuals who are covered under that survey or just those who would be considered insurable. Potentially, you could use this in valuation of traditional insurance

plans or if you're working in a social insurance arena, it might be more appropriate to turn insured off and use all of the survey data in that case.

- There's a screen related to service utilization rates, which is primarily concerned with noninstitutional benefits. The tables that come into the program indicate or project the number of individuals in different activities of daily living (ADLs) statuses and different cognitive impairment statuses throughout the life of a policy. What you have to do as a valuation actuary on this screen is indicate, for people in each of those statuses, what the service utilization is going to be. First, what fraction of that population at any point in time will be utilizing the noninstitutional benefits of the plan that you're looking at? Then, separately, how frequently will they be utilizing those benefits?
- There's a screen in which you input the interest rate. Also on that screen is the preliminary term period -- whether you want to do net level, one-, or two-year preliminary term.
- There's a screen that relates to nonforfeiture benefits, in which you can specify the shortened benefit period factors, if you're using a benefit of that form, or the benefit bank parameters.
- Finally, there are couple of screens that allow you to save or retrieve the specification files, and a screen to indicate where you want the output to go.

I thought I would focus on and discuss in more detail the morbidity assumptions that are used by the software and the utilization rate section. I think some of the other aspects of the calculations are similar to other product forms, and you're probably more familiar with those. We really had to come up with some new ideas on handling the noninstitutional benefits in this software, and I'll focus on that a little bit.

The morbidity assumptions used by the software for institutional benefits are the SOA LTC Experience Committee's version of the 1985 National Nursing Home Survey, the so-called Wilkin tables. You can find them in the 1988, 1989, and 1990 *Reports* of the Society of Actuaries, and I'm sure, if you're actively involved in LTC, you've already looked at these. I'd recommend you take a look at the *Reports*, and read through the description of how much or how little data there

really are there. There are about 5,000 respondents in one category, 6,000 in another, so you have about 11,000 people on whom you're leveraging all of the numbers in these tables. People are using these tables outside of this source code and have been using them for quite some time. Something new that we put together in this task force is the use of the 1982-84 National LTC Surveys as the basis for a calculation approach for valuing the noninstitutional benefits. This is all described in chapter 4 of the task force report, but it's not real easy reading. We went through some gyrations as a task force, trying to find sources of information on noninstitutional benefits. We said anybody who would like to volunteer to give us information on noninstitutional benefits, please do so, and we will consider it in constructing tables; we received very little feedback. We got to the point where we finally said we have to put something together; we'll put it out, we'll get responses, and we'll modify it. Well, we put something together, we put it out, and we got only a couple responses, so I'm anxious to see what comes out of the response to the *Transactions* article. We really haven't received any solid feedback.

Let me describe just a little bit about what goes into these tables. The 1982-84 National LTC Survey is a longitudinal study. It started out with about 36,000 Medicare enrollees in 1982, and they were screened to determine whether or not they had any significant impairments and whether or not they were in institutions already. Then, a more detailed questionnaire was applied to those who were found from the screening interviews to be residing in the community with some level of impairment (functional or cognitive). Those people in 1982 who were in the institution were noted in the screening survey as being in an institution; no follow-up survey was applied to those individuals in 1982. In 1984, these people were revisited, and the folks who were in the nursing facilities and the people who had been surveyed previously were rescreened; again, if they were impaired and in the community, they were reinterviewed. In 1984 they added a detailed interview of individuals in the nursing facilities, and there were also some follow-up next-of-kin-type surveys. That basically produced the information that is available on tape, with very little editing. You can get it through the Inter-University Consortium for Political and Social Research, which is located at the University of Michigan. It will cost you a few thousand dollars, but what's more important is it's going to take you about two or three months of going through these tapes to understand exactly what's in what field and which fields are reliable and which ones aren't. We

wrestled with all of that. Now, of course, we had used this in settings other than those of the task force, but we wanted to put together a generic table that could be used across a wide variety of different policy specifications. We didn't have a specific policy that we were addressing; otherwise we would have taken the specific policy characteristics and applied them directly to the survey data. We couldn't do that in this case, so we decided to take a generic set of ADLs and a generic definition of cognitive impairment. We categorized the survey respondents according to those characteristics and then summarized the result in a way that would allow, through the software, the valuation actuary to apply utilization rates or adjustment factors depending upon the specific policy in question. The software provides access to enough of the summary information so that you can make some reasonably intelligent adjustments to the incidence rates and length of stay assumptions to apply this, at least for valuation purposes, across a wide range of policies.

How does the software use the service utilization rates that are put in on the corresponding screen of the software? A little description of what's in the tables as they come into the software and what the valuation actuary is applying to the tables might help. The tables are composed of two parts for noninstitutional benefits. The first part is disability incidence rates. Since we don't know in advance what ADL trigger might be used by a particular valuation actuary, the definition of a disability period is rather generic. It simply counts the number of new disability episodes relative to the exposure population at various attained ages, and the disability episode is defined to be a period of time in which the individual has one or more ADLs impaired or is cognitively impaired; that episode lasts until there is a six-month break in that definition. Of course, there are policies in which the trigger is not one out of six ADLs, but two or three out of six. So the incidence rate is counting the number of these disability episodes that are defined under a broader definition, and you have to make adjustments through the utilization rates in order to zero out benefits to individuals who would have only one of the six ADLs impaired or only two of the six ADLs impaired, but you need more failure. The tables coming in have information about anybody who has one or more ADLs impaired or is cognitively impaired, and it saves that information. It keeps track of those that are exactly one, exactly two, exactly three or more ADLs impaired, and with cognitive impairment on or off.

The continuance tables are probably not appropriately labeled as continuance tables. They are simply tables of average number of noninstitutional disability days associated with these episodes, and they are broken down according to which of these days are associated with having one ADL impaired, what subset of these days are associated with having two ADLs impaired, and so on. So when you look at Chapter 4, you'll see page after page of noninstitutional tables, and all they are basically doing is saying, here's the average number of noninstitutional disability days associated with these impairment episodes that are counted by the incidence rates; here's how they break down by duration from the inception of that episode and by ADL status and cognitive status of the individual.

Service utilization rates then are provided by the valuation actuary. If you don't do anything extraordinary, you'd simply run this program. You have one screen, and it has a table that says, level of ADL impairment along the rows and across the columns it has cognitively impaired, yes or no. And in each one of those combinations, for example, one ADL impaired but no cognitive impairment, you have to supply two factors. For the disability days associated with having one ADL impaired and no cognitive impairment, you have to indicate what fraction of those days will individuals utilize the benefit that you're valuing. Then you have to also indicate what the frequency of use will be. Even if the cell is one ADL, no cognitive impairment and even though you have a two-ADL trigger, you might say, because of the definition and the way this is going to be administered by the claim department, we're probably going to get 10% of these folks receiving benefits under this policy, so you put 10% in there, and then those folks are going to use it maybe one out of seven days. So those are the kinds of assumptions that you have to come to the software with. You may have to look at past claim data that you may have for your company, or you may have to go to the 1982, 1984, and 1989 LTC Surveys yourself and use that experience to jump-start this, and part of it might just be your best judgment on what the utilization rates are going to be for different functional and cognitive statuses of the individual under the policy that you're valuing.

There's an input file that's not really well-documented that comes into the program that allows you to vary those utilization assumptions by sex, by duration from onset of the impairment, and

so on. So if you don't do that, it's going to apply these same frequency and intensity rates to all disability days in that functional/cognitive impairment status across the board, whether that day is the first day after onset or two years after onset. If you want more flexibility, there's an input file called UTIL.IN. You can put different factors in it to allow these assumptions to vary by duration from incidence, sex, and age of the individual.

When you run this program, you generally end up with pretty detailed questions, but if you have a short question, don't hesitate to give me a call if you think it can be resolved in a matter of a 30-second phone conversation. If you think that it's something a little more substantial, then I would appreciate if you go through the Society office.

MR. TIMOTHY W. VERSCHELDEN: Is this mainly intended for distinct LTC insurance as opposed to death benefit prepayment or something like that?

MR. ROBINSON: Yes, exactly. The software was intended for what you might call generic LTC insurance contracts.

MR. MUNSON: That's a good point. We made no attempt to do accelerated death benefits, which is an issue that is still out there. The NAIC recently said that that is something it is going to look at, but we felt we had more than a plate full. It turned out to be only too true.

I think the software is an amazing piece of work by a lot of people and a great value to you for $200. If you're not into LTC, you can play with it and learn a lot; if you are, you can also learn a lot. If you already have your own systems and want to do your own reserves, you don't need this diskette at all. Use your own system; that's fine. We aren't trying to tell everybody to use the Society's diskette; but I think even carriers who are into it have found some value in looking at it, so I commend it to your attention. The Society of Actuaries is not in the software-selling business, and this has been a challenge for us as a task force. There's no plan to maintain it, but if we sit here five years from now and we have better data and regulations that relate to it, I doubt

our profession could or should ignore that. The "we's" are going to have to roll up their sleeves next time.

LTC is a challenging product. You can think of it as a combination of all the decrements that we actuaries can struggle with, and you think about that especially when talking about institutional and noninstitutional benefits. We had a task force of good people who could and do value their own LTC products already. It isn't that they can't do it; it's quite a different matter, however, to come out with a report and a necessary diskette that talks about how you do everybody's, 98% of which you're not looking at. Some isn't on the market yet but will be, and we want this to stand a while.

MR. JOHN D. DAWSON: I understand we can purchase the diskette from the Society of Actuaries. I'm wondering if it will become available on Actuaries Online and if not, why not?

MR. ROBINSON: It's a good idea. I think for the initial release, we wanted to do something that was closer, in terms of the procedure, to what had been done with the long-term disability software. I think the Society office is interested in the share ware concept, and if we can get to that point where we're distributing the software as share ware, then I think we might be able to distribute it on Actuaries Online, for example.

MR. JOHN A. LUFF: That certainly is up for review.

MR. ROBINSON: It's worth saying that the task force had versions 1.1, 1.2, 1.3 as we worked on improvements, and that was a process that we went through between the exposed one and the one that's now released.

MS. SANDRA W. ZDAN: I have a question for Jim. The software has a lot of detail for cognitive impairment and ADLs on the noninstitutional table, but I'm curious about what, if any, is the ADL assumption that's build into the institutional table?

MR. ROBINSON: There really are no specific ADL triggers that go along with the institutional tables. It's basically based on whomever is in the institution under the 1985 survey. There was some screening done in coming up with the Society version of the table in which certain survey respondents were removed as being uninsurable or could have been recognized as uninsurable under any insurance plan that you might be applying these tables to; but beyond that, there were no ADL adjustments in the table itself. The task force talked about trying to make some kind of recommending adjustment factors of one type or another for ADLs, but I think the discussion pretty quickly headed in the direction that, if the individual ends up being institutionalized, is the company in a position to deny the claim regardless of the policy wording? I think on the institutional side you probably could make the argument that maybe the ADL trigger is not as significant in predicting benefit payments as it would be on the noninstitutional side, where it's probably a much more significant factor. Maybe we leaned on that crutch a little too much, but there probably isn't a lot of data that we could have used to make ADL adjustments. If you think that it's a significant factor on the institutional side, you could go to the 1985 tapes and try to determine which of the individuals in the survey would have satisfied or not satisfied the ADL trigger that you're specifically interested in, get your own version of the 1985 table, and then use that as input to the program. So it doesn't prevent the actuary from doing that; we just didn't provide a pre-calculated set of adjustment factors.

MR. LAWRENCE N. SEGAL: Jim, how do you characterize the use of the software as an audit tool?

MR. ROBINSON: I think that regulators and auditors may be able to use it to get a significant digit or two on some check calculations. However, I think you have to be very careful, especially on the noninstitutional benefits. There are a lot of different ways of approaching that problem, and I wouldn't be surprised if you took another reasonable route to coming up with claim costs on noninstitutional benefits and ended up at something that may appear to be significantly different. So it might be the first step in getting a reasonableness check on the methodology that a company may be employing, but I wouldn't rely on it as the final word on what a reasonable calculation is.

MR. MUNSON: We didn't wear hats for specific aspects of LTC on the task force, but it is interesting that Burt Jay was willing to be on the task force not only because of an interest in LTC, but also because he has a long background in the valuation actuary concept. He more than once was helpful to keep us in that ballpark.

MR. BURTON D. JAY: Bart has asked me to talk about a relatively new committee that's just been designated by the Society of Actuaries Board at their May 11, 1995 meeting. The Joint Committee on Health Financial Issues was designated as a new committee, joint with the American Academy of Actuaries. Before that, we had been operating as a task force, the Health Financial Issues Task Force, under the Society. Our spectrum of activity increased quite a bit as we came under the umbrella of the Academy as well as the Society. The charge is that the committee will study the various financial issues and capacity concerns encountered by risk-bearing health organizations and will provide assistance on public policy matters regarding financial issues and capacity concerns. We really haven't done a lot with capacity concerns yet, but that was a big issue back when it looked like national health insurance or some form of universal health coverage was to be implemented by federal law.

As chairman of this committee, I'm also a member of another committee called the Health Organization Product Advancement Committee under Howard Bolnick. This is a Society committee that includes the chairs of the various health committees.

I'll give you a sampling of some of the projects that we are undertaking. One is to provide continuing assistance to the task force developing the health risk-based capital formula. We had a lot of intense work going on in 1994 during the development of the new frontier, particularly in the areas of what's called the "other" category, the health coverages that were not medical coverages or disability income. Another charge is to expand and edit the group and individual health chapter of the *Dynamic Financial Condition Analysis Handbook*. We used to call this the *Dynamic Solvency Handbook*, but for some reason we decided to change the name to something that's pretty hard to say. We hope to have the next edition complete in time for the Spring Society meetings in 1996, and we hope to enhance the coverage of managed care or health

maintenance organizations (HMOs) and similar types of organizations. There's very little in the current version on LTC, and we have a writer of the handbook who is dedicated to providing some LTC coverage, and also to expand some of the disability income and special risk portions of our chapter. Another activity is to develop and recommend possible changes to Schedules H and O of the NAIC statement. There's a project under way now that we're following that is attempting to change the categories within Schedule H and O from categories that are dependent on type of renewal provision to the same product groupings that will be embraced by the new health risk- based capital formula. There's a process to simplify the health risk-based capital formula now, and as that unfolds the changes in Schedule H and O will follow.

A major part of the responsibility of the committee now is to manage the projects that are related to LTC valuation and other LTC issues. One of the projects in the LTC area is assisting the NAIC or at least reviewing its work in developing the model regulation for LTC valuation. The NAIC is modifying the model valuation law for health insurance to implement the recommendations of our task force report. Another project is to develop an LTC valuation practice note. There isn't one now; that's one of the few health products that doesn't have a practice note. This project is well under way, and we hope that the new practice note can be distributed by the end of the year, so it can be of use for 1995 valuation work. And finally there's a project to develop a new LTC valuation standard. This probably will follow the final product that comes out of the changes to the valuation law. It may not be a standard; it may be a compliance guideline, depending on the nature and the form of the changes to the model law.

In the research area, we have a specific example that was completed early in 1995. That is the research project on the health carrier insolvencies. This analyzed the number, size, location, and causes of insolvent health insurers, HMOs and Blue Cross/Blue Shield plans. This project was one that was funded by the Society and actually conducted by Professors Jim Ross and Chris Woodruff who are university professors. The report is available through the Society office and is also on Actuaries Online.

MR. MUNSON: As you observed, it's an example of trying to serve our profession and others, like the regulators, and not getting all wrapped up in whether it's the Society or the Academy. For example, I like to think of our report as a research report; that's really what it is. That's clearly a Society function. Now when it comes to public interface, that traditionally is an Academy function. I think both are proper and necessary.

We have more to follow up and do, but we are not to go the next step and tell the regulators what to do. That's their job, and we're trying to be careful not to do that. They're meeting us halfway, and we're working together amiably. We met on June 2, 1995 with the NAIC. We've had two conference calls this summer, a couple of us with their working group, to talk about it. That group put out an exposure draft for discussion in Philadelphia. Recently the NAIC met on this draft it had put out. A revision is going out to the world with the NAIC mailings from Philadelphia. It says on the revision that those who are interested, please react by October 15 to Mark Peavy at the NAIC for consideration on December 1 in San Antonio, when Jerry Ficke's Health Working Group will meet again. Between October 15 and December 1 the members of the working group will probably have a conference call, they'll probably work it, massage it a bit, and put another exposure out. I've gone through it and observed ten things that they've done relevant to our Society research report. I'll list them one through ten. There were two things that were not done, and I will list those as well:

1. On claim reserves, "they should be done with due consideration for any significant differences by gender." They're words of art. Does that mean an actuary must use sex distinct? Does it mean you don't have to? The members of the working group had some of those discussions the first time that the whole working group talked about it recently. That's consistent with our recommendation, I think; that is, our task force said that you really should be using sex distinct. Does that mean you always have to? Does that mean if you know better if you have data? We went through all that, and we don't know yet as a task force how we're going to react.

2. The claims for home health care must be established on a case-by-case basis if the claims are more than 180 days of service old, consistent with what we said.

3. Under minimum contract reserves, tables shall be gender specific.

4. Reserves shall be no less than if calculated by tables without select adjustments, and we said something like that in our report, also. We don't want to play around with a lot of select assumptions. Selection might be real heavy and run forever if you really want to be devilish with it. Regulators said they aren't comfortable with that.

5. "Mortality tables shall contain a pattern of incurred claims which accurately reflect the underlying morbidity, and should not be constructed for the primary purpose of minimizing reserves."

6. The valuation actuary shall consider the potential for antiselection at the time of lapse. Voluntary lapses will usually result in increased claim costs for insureds. It's considered an antiselection advisory, and it doesn't say LTC because the working group said maybe that's a good thing to put on the table as an advisory for all actuaries. We didn't try to write a report for all health products, but inevitably it's useful to think about similar things in some of these products, and that's how I read that number six. There was also a drafting note referring to the *Transactions* for the useful discussion of this issue. The NAIC has done this two or three times, which I found very interesting.

7. There's a reference to nonforfeiture benefits, and it says, as our report suggested, that the reserve you hold at any duration should not be less than the value of the nonforfeiture benefit going forward from that time.

8. There is a drafting note that LTC valuation should be a result of ongoing study. Further study should be done on a net-level basis for buying additional attained age pieces under inflation protection. Further studies should be done on upgrades of LTC.

9. There is a drafting note that says a useful tool is the companion valuation diskette. By now I hope you know that, but you can certainly draw your own conclusion when you work with it. We think that was a useful statement.

10. Finally is mortality. The NAIC draft says for LTC insurance the mortality basis used shall be the gender specific 1983 Group Annuity Mortality table without projection. That too received discussion, as we did, too, in our task force. Does that mean that's the only basis you can possibly use? They'll have to answer that question. We said that's what the actuary should use, but we also have several tables in the diskette. We know that many actuaries are using some other basis and they're not necessarily always wrong.

The two items that the NAIC did not make changes on are the lapse rate and the method. They're the two items that are not flagged in the redraft. On voluntary termination, we had recommended that the current limit of 8% combining voluntary and mortality wasn't quite the way to go. We said it ought to be mortality plus not more than 8% of voluntary. The second is the method. They stay at the moment with one-year preliminary term. We said, amid some controversy that, all things considered, perhaps the valuation actuary could use two-year preliminary term; we said that was adequate for the recommendation as the minimum reserve. It's worth telling you that it's the only place our task force took a specific vote. We worked hard on this issue for probably a year and a half, and it was very much a split vote; we say that in our report. There is a sizeable minority that said it maybe should be one year as the regulators have it. There is somewhat of a majority who said two is fine, and it's involved with putting together a lot of other assumptions with the method. What are you doing on interest? What are you doing on lapsation? The valuation actuary has to look at more than just one thing at a time. In any event, to this point and perhaps forever, the NAIC has chosen to leave it with one year.

I agree with Bill Waller's request that I'd say a word about lapsation. Bill has sent an article to *The Actuary* to report on a lapse study that the Health Insurance Association of America (HIAA) has done, because he fears that the relatively high lapses that are shown in the Society's intercompany LTC report are higher than what many companies seem to think is really happening.

He's concerned that some actuaries might say, it looks like lapse rates will be high, and therefore I'm going to use high lapses and cut down on reserves. Bill believes that the experience of surveying companies on lapse rates shows they are not as high as what the intercompany study preliminary findings have shown. He's not critical of it; he just says don't be influenced by its high lapses without a good bit of thought.

MR. JERRY W. FICKES: Bart, I think you've covered it all very well. On the last two points, I think it's easy to say we're regulators; we're conservative, and we took the conservative approach. It was not a close vote.

MR. MUNSON: That's fair to say, too. In fact, it probably was unanimous or very close to it at their public meeting in Philadelphia. Burt, would you please say a word about the reporting form?

MR. JAY: I'll highlight the main features. There has been a requirement for LTC experience reporting since the 1991 annual statements. There are three forms that are involved, Form A, B and C. Form A is a nationwide experience form. It's by policy form, or you can group the forms together if they have similar coverages and provisions. It reports on the calendar year preceding the statement year. It gives actual duration loss percentages, which are compared to those that are anticipated in the latest rate filings. Form B is similar information on a nationwide basis except the cumulative loss percentages are required by calendar duration. A comparison of actual to anticipated cumulative loss percentages is required. Form C is like Form B except Form C is state specific.

The main changes that are being recommended right now by the regulators are mostly in the nature of clarifying and particularly making it absolutely clear that the cumulative calculations require an interest adjustment. From a couple of things that I've received from the NAIC, it appears that they feel that most companies up to now have not been using an interest adjustment in their cumulative loss-ratio calculations. I think that the new instructions will make it crystal

clear that this adjustment is required. Changes were made in 1994 that will apply to 1995 statements. It went part of the way described above, and the changes this year go even farther.

With respect to Form C, the instructions as to when policy level information is required were amplified. There are three criteria, and the last two haven't changed. The first criterion was reworded; it says, for the most recent annual statement year, the premium in the state for the policy form or combination of forms is more than 10% of the national total for the same year. If the 10% condition is made, further instructions are given as to when it was first met how to treat earlier years. The next criterion is when the company has increased premiums during the last five years, and the instructions there depend on whether the rate increase rationale is based on state-specific experience or on accrued experience. And finally the third criterion is when the state requests state-specific experience to monitor the adequacy or reasonableness of premium rates. It makes it a little more clear when reporting state-specific information is required on Form C. In general, I didn't find anything that really changes the nature of the reporting required. The instructions are just made clearer so that the regulator's intent is less likely to be misinterpreted.