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# 2003 VALUATION ACTUARY SYMPOSIUM

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## Session 1PD

### Life and Annuity Valuation Issues

**Moderator:** MEREDITH A. RATAJCZAK  
**Panelists:** DONNA R. CLAIRE  
PAUL W. SKALECKI

*This session provides an overview of a range of current statutory valuation issues pertaining to life and annuity products. The major valuation issues are introduced here and covered in-depth at subsequent sessions. Topics include: actuarial opinion and memorandum regulation amendments, progress on variable products reserving standards, Regulation XXX mortality factors, adoption of the 2001 CSO, progress on the C-3 Phase II RBC project and update on the annuity and life nonforfeiture. At the conclusion, participants have an overview of current life and annuity statutory valuation issues.*

**MS. MEREDITH A. RATAJCZAK:** Our two panelists today are Donna Claire and Paul Skalecki. This session is intended to give you a brief overview of all the issues that are going to face us as actuaries primarily on the valuation side. The intent is that in the sessions that follow this general session these topics will be covered in much more detail.

Our first panelist will be Paul Skalecki. Paul has been with Northwestern Mutual for 16 years. For the last six, he's been responsible for the statutory, GAAP and tax valuations of all products at Northwestern. He has served on many committees, including the SOA Mortality Table Research Task Force, and more American Academy of Actuaries committees than I have time to mention.

Our second panelist will be Donna Claire. Donna is the President of Claire Thinking. She engages in general consulting, with a focus on asset liability and risk management and regulatory matters. She is the incoming vice president for the Life Practice Council. She has participated in a number of Academy groups, and she is currently a member of the Board of Governors of the American Academy of Actuaries.

**MR. PAUL W. SKALECKI:** This morning I'm going to be covering six different valuation-related topics. The first will be the 2001 CSO Table. It's been 20 years since we've had a new table. I'll review how the table was developed, and I'll

discuss what the current status is of state adoption. Then I'll talk about the current interest rate environment. As you're all aware, interest rates, as well as bond yield rates, have come down over the last few years. These rates go into determining what the statutory valuation rates are. There's a real chance that the life insurance valuation interest rate may actually come down for policies issued in 2005. If that happens, that will be the first time the life valuation rate has changed in 10 years.

Then I'll talk about some possible revisions to the Standard Valuation Law that are being discussed by the NAIC's Life and Health Actuarial Task Force (LHATF), as well as a possible change to the disability insurance (DI) claim reserve standard, and a few changes that are possible for long-term-care (LTC) reserving. Finally, I'll close by giving a little discussion of a new project going on, with an effort to review and revise existing life practice notes and possibly generate some new practice notes. My intent here is to hopefully generate some interest from those of you who would like to volunteer and help out in this very worthwhile project.

Let's start with the 2001 CSO. Mortality rates, especially insured mortality rates, have dropped dramatically in the last 20 years. As a result, in November 1998 the NAIC asked the Society of Actuaries to develop a new valuation mortality table. The Society realized that this was a very big project, and they realized that they couldn't do it all by themselves, so there are actually three groups involved in the development of the 2001 CSO table.

The first group was a Society group that put together the 1990–95 Experience Mortality Table, which served as the underlying basis for the valuation table. A second Society group then took this 1990–95 SOA experience and supplemented it with experience at some of the older ages where the data were a little bit weak. It incorporated mortality improvements from the middle of the 1990–95 study period, up through the year 2001, and then it smoothed them out to get a table that's appropriate for valuation. The third group that worked on the table was an American Academy of Actuaries group. This group took the valuation basic table that was developed and developed appropriate loads for statutory valuation, and they ended up with a 2001 CSO table.

In all there were 21 companies that contributed data to this table, with \$5.7 trillion of exposure. Now, that's a lot of exposure, but the regulators had a bit of a concern about the fact that only 21 companies contributed. Beyond that, there was a little bit of a concern too, because, of those 21 companies, there were four companies that contributed the vast majority of the data. There was some concern about how widespread and representative these data were of all companies in the country.

The experience consisted of standard, fully underwritten, ordinary individual life policies. You'll note that preferred mortality is lumped in with this standard fully underwritten ordinary mortality. It's not split out separately, and that's because there's no clear definition of what preferred mortality is throughout the industry, and what's preferred for one company may not be for a different company. The

experience data for preferred mortality is limited. It just hasn't been around that long.

The 2001 CSO Table is in select and ultimate form. It has a 25-year select period, which of course is different than the 1980 CSO, which has 10-year select factors or even with the XXX select table has 19-year select factors for 80 CSO. It has male and female, and it's also split up between smoker, nonsmoker and composite. Issue ages are from 0 to 99 with attained ages out to age 120, and, of course, that's different than the 1980 CSO, which just goes out to age 99. As I mentioned, there are no preferred risk class tables because of the lack of a clear definition of what preferred mortality is and the limited amount of data.

One other thing to note here is that there is no extended term table. Extended term insurance is not as prevalent today as it was 20 years ago when the 1980 CSO and the 1980 CET table came out. Of all the companies that contributed data to the study, only one company contributed extended term data. That mortality wasn't significantly different from the mortality for the rest of its business, so it was decided that there would be no extended term table this time.

Although that's incorporated into the 2001 CSO table, it's 15 percent overall. Now, that 15 percent is going to vary greatly by gender, age, smoking status, but overall, it's about a 15 percent load. It's important to note that this 15 percent is substantially less than the load that's incorporated into the 1980 CSO. So the margin that's there is reduced. The load is put on top of the mortality, so that the mortality had the 15 percent load, not necessarily that the reserves themselves would have a 15 percent load, and the load is in the form of a one over the expectation of life. This type of loading actually functions in such a way that the absolute load as far as absolute number of deaths increases as your mortality rate increases. But the percentage load decreases as mortality increases.

The resulting mortality level in the 2001 CSO is greater than the mortality level of 15 of the 21 companies in the study. What that means is that this table will not cover the mortality experience for all companies out there, nor will it cover the mortality experience of certain blocks of business within each company. So it's important to be careful when using the 2001 CSO to make sure that it's appropriate for the block of business that you're evaluating.

The slope of the 2001 CSO is generally steeper than the slope of the 1980 CSO. So even though the 2001 CSO mortality has a lower level than the 1980 CSO, this increased steepness in slope will mean that not all reserves will necessarily be reduced. There are some places where the reserves may actually increase a little bit. It doesn't happen very often, but I believe there are some pockets where it does occur.

The group that developed the 2001 CSO wanted to get an idea obviously of what the impact on reserves would be of the new table. So that group developed a model

office. The model office consisted of three plans: a whole life plan, a 20-year level-premium term plan, and a universal life plan with level premiums such that the universal life plan stayed in force just barely up until age 100. The issue ages that were used were at 25, 35, 45, 55 and 65, both males and females, and the distribution of new business was based on Life Insurance Marketing and Research Association (LIMRA) information. The model office assumed a 5 percent annual increase in sales and a 4 percent annual lapse rate.

We looked at results after both 10 and 20 years. For males, the reserves under 2001 CSO versus 1980 CSO are roughly 20–25 percent less, and for females it's about 15 percent less; overall it's about a 20 percent reduction in reserves for this particular model office.

We also split this a few different ways and looked at it by plan, and for whole life, it's about a 15 percent reduction. Term saw the biggest reduction, 30–35 percent for this particular level-premium 20-year term plan. Universal life (UL) saw only about a 5 percent reduction, and that was because for this particular UL plan that we were looking at, it bumped into the cash-value floor after about the seventh year, and what was driving these reserves was really the cash value. So it didn't really matter at that point what mortality table you're using since the cash value was driving it. And again, overall, it's about a 20 percent reduction. If you looked at it by age, the main thing you can see here is that there isn't a great variation by age. It's fairly consistent.

The other thing I wanted to note is that all these comparisons were done using an ultimate composite mortality. We used ultimate rather than select and ultimate, because ultimate mortality has a flatter slope and therefore produces generally a lower reserve. Therefore, we anticipate that that's the mortality table that most companies will use for most of their business. The one exception there would be term insurance plans that are roughly 15 years or less; when it's that type of a plan, then select and ultimate will produce a lower reserve, but for term plans, generally 20 years or longer, and all permanent plans, the ultimate mortality does produce the lower reserves.

As far as the status of the way the adoption process is after the 2001 CSO, the table itself needs to be adopted through a rule or regulation, and that's because the standard valuation law and the standard nonforfeiture law were both written so that changes to these laws didn't need to be made every time a new table came along. Both these laws contain language something along the lines of you can use 41 CSO for a certain group of policies, 58 CSO for different group, 80 CSO for a third group, and for anything beyond that you use the table that's been most recently approved by rule or regulation by the commissioner. Therefore, every time a new table comes along now in the future, these laws don't have to be revised.

But the NAIC has developed a model rule or regulation that can be used in these states to help put the 2001 CSO into play. The title of this regulation is rather

lengthy but descriptive, and it's called "The Recognition of the 2001 CSO Mortality Table, for Use in Determining Minimum Reserve Liabilities and Non-forfeiture Benefit Model Regulation." One significant thing about this model regulation is that it requires that if a company uses the 2001 CSO table, it must also perform an asset-adequacy analysis when it develops its actuarial opinion. There's an exemption in there that the commissioner may exempt any company from that particular requirement if the company only does business in that particular state and no other state.

The regulators wanted this additional requirement of the asset-adequacy analysis because there was a bit of discomfort among them, for a number of the reasons that I mentioned earlier. Number one is a lower margin in the 2001 CSO than in the 1980 CSO. Number two, there are only 21 companies that contributed to this study. And third, the table covers only about 70 percent or 71 percent of the companies that did contribute.

The states also need to be careful about the regulations. For example, Regulation XXX or the regulation that permits that use of smoker or nonsmoker mortality—if those regulations in each state follow the model, I don't think any changes are needed, but there may be cases where states need to pay attention to these other rules and regulations, which reference the valuation and mortality because it's possible that those rules may need to be changed also. The model enabling regulation allows for use of the 2001 CSO adoption at any time, but it requires that business issued January 1, 2009, and later use the 2001 CSO table.

Next I want to talk about the status of state adoption as of August 7. As of September 5, according to the ACLI, three states have adopted the 2001 CSO; that hasn't changed since August 7. Those states are Oklahoma, Texas and Utah. But now there are eight states that have proposed adoption of the 2001 CSO: Indiana, Maryland, Massachusetts, Nebraska, New Mexico, Ohio, Pennsylvania and Tennessee.

According to Van Elsen Consulting on their Web site, they have shown that three states have adopted the 2001 CSO so far, the same that I mentioned earlier, and they've done a survey of different state insurance departments. They report that 20 other states are planning to adopt the 2001 CSO table in 2004, and three other ones will adopt it in 2005. When the 26th state actually adopts the 2001 CSO, it becomes what's called the prevailing table, and the prevailing table is used for Section 807 Tax Reserves, as well as the Section 7702 Definition of Life Insurance and Section 7702A Definition of Modified Endowment.

There is a three-year phase-in period definitely for the Section 807 reserves and most likely also for the Section 7702 and 7702A Definitions of Life Insurance and Modified Endowments. The reason I say "most likely" is because 7702 and 7702A came along after 1980 CSO was out, and so this was the first time that we're actually going through the process of adopting a new table since these Definitions

of Life Insurance and Modified Endowments have been in existence. And the IRS was not clear in their regulations if they would allow a three-year phase-in or not, but I believe that most people feel that it's reasonable and that they will provide that same three-year phase-in period. What that means is, if, for example, the 26th state would adopt the 2001 CSO some time in 2004—suppose it's July 2004—then it becomes a prevailing table at three full calendar years after that. So it would be for business beginning January 1, 2008, in this example.

I'll move on to discuss the current interest rate environment. Both the statutory valuation interest rate and the nonforfeiture interest rates are a function of bond yields that are published by Moody's. As I mentioned at the start, these bond yields have been declining in recent years. In June 2000 the yields were up around 8 percent and declined slightly over the course of the next 12 months, whereas in June 2001 they were roughly at 7.5 percent and actually stayed fairly constant during the next 12 months. But since June 2002 they have declined quite dramatically. As of June 2003 the rate was 5.85 percent; it had bumped back up to 6.26 percent as of July, and I don't have the August rates: I'm not sure where those are at right now.

I'm going to focus on the life insurance minimum standard for statutory valuation interest rates, and I'll be talking about those life insurance contracts with the guaranteed duration of more than 20 years. If the guaranteed duration is less than 20 years, a different valuation would apply, and different rates would apply for annuities. Right now I'll also be focusing on the valuation rate. There's a different rate for nonforfeiture purposes, which I'll touch on in a second. But for now, the valuation rate is a dynamic rate, and it's based on a formula in the standard valuation law which uses 12- and 36-month averages, as of June 30 of the preceding calendar year. This rate has not changed often, and that's by design, because for life insurance there's also a requirement in the standard valuation law that if any change is going to be made, it has to be a change of at least 50 basis points. So this provision in the rule provides some stability in valuation rate for life insurance.

The minimum standard for statutory valuation interest rates was at 5.5 percent from 1987 through 1992 and dropped to 5 percent for two years, and then it's been at 4.5 percent every year since 1995. So if you include 2004, and we know that a rate will be at 4.5 percent for 2004, that's 10 years right there where the rate hasn't changed at all. This rate will drop to 4 percent for policies issued in 2005 if the reference interest rate, as it's defined in the standard valuation law, is less than 6.21 percent as of June 30, 2004. The reference interest rate is the lesser of the 12- and 36-month averages, ending on June 30 of the calendar year preceding the year of issue as the average of the Moody's composite yield on seasoned corporate bonds.

A larger reduction is possible if the reference interest rate would drop even further. If the 12-month average rate would be between 6.22 percent and 8.35 percent,

then the valuation interest rate would remain at 4.5 percent. If that 12-month rate ends up anywhere between 5.51 percent and 6.21 percent as of June 2004, that's when the rate is going to drop to 4 percent for policies issued in 2005. A further reduction would be involved. If the rate ends up at 4.8–5.5 percent, we'd drop to 3.75 percent; or getting down to 4.09–4.79 percent, it would actually drop down to 3.5 percent.

You notice that all of these valuation interest rates are rounded to the nearest quarter percent because that is a provision of the standard valuation law. And as I mentioned a few minutes ago, there's also no possibility that the rate would drop to 4.25 percent, because if any change is made, it has to be at least a 50-basis-point change.

Take, first, the 36-month average of the bond yields, and then the 12-month average: the valuation rate is based on the lesser of those two, and so right now the 12-month average is the lesser of those two. The points that we're really concerned about are where is that 12-month average as of June? There is a trigger point for the rate to drop down to 4 percent, and here that trigger point is 6.21 percent. The trigger point for the valuation rate to drop to 3.75 percent is at 5.5 percent.

As you can see, the first month that we have for the next 12-month average period is July 2003, and that was at 6.26 percent, which is just barely above that trigger point. So there's a real possibility that if rates don't change, or if they come down just a little bit, that the valuation interest will be different for policies issued in 2005.

I'll now go on to the nonforfeiture rate. The nonforfeiture rate is the same as the valuation rate with the exception that it is 125 percent of whatever that rate is. And this too, because it's the same general format, has not changed very often. If you look at that rate, again, it's very similar, just with different numbers. It's been 7 percent back from 1987 through 1992. It dropped to 6.25 percent in 1993 and 1994, and it's been at 5.75 percent ever since 1995.

This nonforfeiture rate will drop to 5 percent for policies issued in 2006 if that reference rates drops below 6.21 percent. The reason for that is the standard nonforfeiture law allows 18 months, whereas the valuation law allows only six months for it to take effect. And, of course, larger reductions are possible if that rate drops even further.

Also, in the standard evaluation law there are provisions for other valuation interest rates, such as for single-premium immediate annuities and other annuities. They have different dynamic functions than life insurance, and those rates have been changing much more often than life insurance largely because they don't have that 50-basis-point minimum change requirement. In addition, I believe most of those

rates—perhaps all those rates—are based only on a 12-year average, rather than a 36-month average.

Section 807 is a portion of the tax code upon which a reserve is determined, and that reserve then gets fed into the three-way comparison for tax reserves or is between the Section 807 Cash Value and Statutory Reserve, and then the resulting value that comes out of that three-way comparison is actually the tax reserve. But the Section 807 interest rate is the greater of the prevailing state-assumed interest rate and the applicable federal rate (AFR). The state-assumed interest rate is just a statutory minimum, and the AFR is the 60-month rolling average of the federal midterm rates. This AFR typically is greater than the prevailing state-assumed interest rate. The AFR peaked at about 8.42 percent in 1991, and it's been coming down gradually ever since. In 2001 it was at a flat 6 percent, 2002 issues were 5.71 percent; for 2003 issues it was 5.27 percent. For 2004 issues it's going to be somewhere in the neighborhood of 4.8 percent, because we're looking at a 60-month average, and there are only a few months left to go on this 60-month average period. So it's going to be right in the 4.8 percent range.

Next I'll address possible revisions to the standard valuation law. This idea was first introduced at the LHATF in May 2001, and there's been discussion on and off over the past couple of years. There will be more discussion tomorrow at the LHATF meeting in Chicago as it's on the agenda.

The first issue that has been raised as a possible change is deficiency reserves—basically, are they still needed? With Regulation XXX and the X factors, deficiency reserves on new products have been greatly reduced and in many cases eliminated. There's also asset-adequacy analysis that's performed now, which looks at how much of a minimum reserve is required and requires that that reserve be set up. So there's less of a need right now for deficiency reserves. There's an Academy group that is getting together that's going to be reviewing a theoretical basis upon which deficiency reserves are based.

A second issue is, given the many benefit streams in life insurance today, should the life Commissioner's Annuity Reserve Valuation Method (CARVM) really be more like annuity CARVM? In other words, should all possible future benefit streams be looked at when determining life insurance reserve? And if that is the case, will that require a more precise definition of what elective and nonelective benefits are?

A third issue is whether they should revisit the annuities that are currently exempt from CARVM. Should they look at whether the reserve standard for universal life should be put into a statute? Other issues that they'll look at with regard to standard valuation law are whether or not the accident and health reserves should be established in a statute, or rather should there at least be a minimum gross premium valuation basis.

Should the standard valuation law Section 3 be expanded to include a good and sufficient provision? Should old valuation tables be eliminated, and should we value



all in-force business on the current tables? These are just ideas being thrown around.

Finally, the last thing that the group is looking at is the certificate of valuation. Is there really a need for these certificates of valuation that are issued by the state insurance departments? Is there a need to expand these certificates of valuation to include accident and health business? Is there a need to expand them to include a certification of the asset-adequacy analysis? Right now, LHATF is leaning toward eliminating these certificates of valuation, but before doing so, they're investigating whether or not there is some other value to them.

There is one brief issue on DI claim reserves. LHATF is working on amending the health insurance reserves model regulation to clarify when a company can use their own experience. Right now, the model regulation basically says that a company can use its own experience for individual DI claims within the first two years of claim, and for group within the first five years. If a claim is within the first two years—for example, if a claim is 18 months old—some actuaries will actually use their own company experience for the entire life of the claim. If you read the words in the regulation, they can be interpreted that way if you'd like. So the clarification that is being worked on and will probably be put in place is that for individual DI you can only use the insurer's first two years of plan termination rate experience. In other words, if the claim is 18 months old, you can use the reserve experience only for the next six months, and then you have to begin using the table rates. And for group, it's for the first five years.

They're also considering a few possible changes for the LTC reserve standards. There is an accident and health working group LTC subgroup that's working on amending the health insurance reserves model regulation. Some of the possible changes here include incorporating some language that wouldn't allow future morbidity improvement. Right now, there is no industry standard morbidity table for LTC. So companies are free to use an appropriate valuation morbidity table for their particular block of business. Some companies have included morbidity improvements in their valuation, and so the LTC subgroup wants to change the language to something along the lines of that morbidity improvement would not be allowed in setting reserves. There's also a question about when you establish a morbidity standard, should you use the morbidity margin approach or reserve margin approach? The LTC subgroup is leaning toward using the reserve margin approach for LTC reserves.

They're also looking at the mortality assumption. Right now, the requirement is a 1983 Group Annuity Mortality table. They're considering whether that should be changed to the annuity 2000 table or the 1994 group annuity reserving table, and finally, they're also considering the valuation lapse assumption that's currently in LTC reserve standards. Right now, it's an 8 percent lapse assumption that can be used for the first four years, followed by 5 percent thereafter. They're wondering if they should keep that, or perhaps change it to something like 6 percent in the first

year, followed by 4 percent in years 2–4 and 2 percent thereafter that, or even eliminating lapses in setting statutory reserves, because this would be consistent with statutory reserving requirements for other products.

My last topic is the life practice note project. It's an important project that was recently undertaken by the Life Valuation Subcommittee of the Academy's Life Practice Council. We're basically reviewing and revising where needed—or perhaps even withdrawing where needed—existing life practice notes. We're also going to be developing new practice notes wherever those may be needed.

What is a practice note? For those of you who aren't familiar with them, they are developed by the Academy and provide practical guidance on a given topic. They offer examples of current approaches to actuarial practice, and they describe practices that are employed currently by actuaries. One of the reasons why we've undertaken this project is because many of these practice notes were developed in the mid-1990s—14 of them were developed in 1995—and there's a statement in the 1995 practice notes that reads "Practice notes represent a description of practices believed to be commonly employed by actuaries in the U.S. in 1995." Well, it's 2003 and we're heading on to 2004, and it's time that we update these practice notes because I have a feeling that what we were doing nearly 10 years ago is quite a bit different than what we're doing now.

The practice notes make no representation of completeness. Other approaches or practices may also be in common use. The information in practice notes provides guidance. They are not binding. They are not a definitive statement as to what constitutes generally accepted practice.

So why are these practice notes important? Well, they provide guidance to actuaries. That's an important thing in itself. But there are other reasons. Litigation against actuaries is increasing, and this litigation is usually for malpractice. This type of litigation obviously is bad for the actuary who is being sued, but it's also bad for the profession in general. This type of litigation drives up actuarial malpractice premiums. It reduces the credibility of the profession, and any kind of negative press is going to make it more difficult for us to attract bright new young people to this profession. Malpractice claims are usually for a failure to follow generally accepted practice. So even though the practice notes are not standards of practice, they can be interpreted by some to be standards, especially when there's no applicable published standard that exists.

So it's very important that we keep these practice notes up-to-date. There are 22 life practice notes; as I mentioned, 14 were published in 1995. Six were published in 1999, and so six are 4 years old right now, almost 5 years old. You can take a look at all these practice notes and read them over if you like at [www.actuary.org/practice.htm](http://www.actuary.org/practice.htm). Most of these practice notes deal with asset-adequacy analysis and cash-flow testing, but there are some others that deal with specific valuation issues and financial reporting issues.

We're also looking at adding some new practice notes where needed. Some of the possibilities that we've come up with so far would be a C-3 Phase I and Phase II for variable annuities, liquidity, implementation of the new Actuarial Opinion and Memorandum Regulation (AOMR), reserving for substandard risks, state variations and reserve standards, fitting market-value adjustments into fixed annuity CARVM, variable life insurance guaranteed minimum death benefit (GMDB) reserves, deferred tax assets, deferred tax liability treatment, and cash-flow testing, reinsurance reserve credits, aggregate reserve for non-domestic actuarial opinions, GAAP, GMDBs and guaranteed minimum accumulation benefits under the proposed Standard of Practice (SOP).

Finally, they'll look at fixed annuity nonforfeiture and handling future rate changes in CARVM projections. There may be other areas that are in need of a practice note, and we're certainly looking for ideas from all of you as to where a new note may be needed.

So how can you help? Well, first, just become familiar with the practice notes. It's important that all actuaries are at least familiar with the practice notes that are out there, and even if you haven't read them all, at least know what the general topics are so that if you're ever in a situation where you're not quite sure what to do, you know that there's a certain reference that you can go and look at and see what practice is being employed by actuaries today.

The second thing you can help us with is to send us your suggestions. If you know of an area where an existing practice note is way out of date, and perhaps you're an expert in a particular area and you're familiar with the practice note and you know it's just flat out wrong, please let us know. Or if you have an idea for a new practice note, that would be a good thing for us to know also.

And the third way you can help us is to volunteer. The current practice note group is a small group. There's a steering committee that consists of Donna and me, and Tom Campbell, Dave Neve and Steve English from the Academy of Actuaries. Our group is trying to assemble all this information and determine where the practice notes are needed. And then we're going out and recruiting people to help work on a particular practice note. So if you volunteer to help, it doesn't mean that you're going to be volunteering to help on this huge project. What it means is that you're volunteering to help on a particular project in which you have some expertise, and you can lend yourself to the profession by letting us know what some of the counterpractices are out there. It shouldn't involve a major time commitment; it should take only a few weeks or months to write a practice note, and this will be a way to make some contacts with other companies. Donna was involved in the first 22 or who knows how many practice notes, and I think she can tell you that it's a very worthwhile experience. So if you want to volunteer, contact Steve English or myself, and we'd be happy to get you involved.

**MS. DONNA R. CLAIRE:** I'm going to give you updates on mostly the LHATF projects that are going to affect you either this year-end or pretty soon in the near future. First are the changes to the AOMR. The changes were approved by LHATF a couple of years ago. One of the major changes is that all companies have to do a Section 8 opinion. There are not going to be any exemptions. The advantage to appointed actuaries is it does allow states to elect to allow actuaries to file state-of-domicile opinions, which means the actuary is not going to be on the hook for knowing the details of the 50 laws.

Other changes within the regulation are that a lot of the specifics have been eliminated. It also requires an executive summary, also known as the regulatory asset-adequacy issue summary. Partly because of the changes in the regulation, but partly also because it's been a number of years, the Actuarial Standards of Practice (ASOPs) 7 and 22 were rewritten. Out of curiosity, how many of you have actually read the new 7 and 22 within the last two years? It looks to be about half. The other half really should get around to it really soon. Again, even though the regulation isn't effective in a number of states, the SOP did go into effect in 2002, which means it applies to you for last year and, of course, this year-end. Because the regulation eliminated a lot of the details, there's a lot more meat in the ASOPs. For example, one of the things is that ASOP 7 requires interim cash-flow testing results to be looked at by the actuary. And again, the ASOPs can be found on the Academy Web site, [www.actuary.org](http://www.actuary.org).

For this year-end Florida has adopted the AOMR changes effective in 2003. As far as we can tell, no one else has specifically focused on adoption for this year-end. If we find out that there are more, the Academy will send out an alert as soon as we find out. There are a number of states that are expecting to adopt in 2004, including New York, California, Texas, North Carolina, I think Indiana and Nebraska and a few others. Again, this doesn't just affect those companies domiciled in those states; it affects the opinion that you're filing in those states. Specifically, for example, if you're doing a Section 8 opinion, this year you have to submit the regulatory asset issues summary to Florida. And again, you cannot do a Section 7 opinion for Florida.

A number of states which haven't specifically adopted the change to AOMR are following some of the things within it. For example, New York State requires anyone with over \$100 million to file a Section 8 opinion. Other states are saying, if you failed more than a couple of Insurance Regulatory Information Service (IRIS) ratios, you have to do a Section 8 opinion. Other states are letting certain companies know that this year they do have to do a Section 8 opinion.

Codification adopted part of the AOMR changes, specifically the elimination of the Section 7 exemption of asset-adequacy testing. Codification affects any issues, any policies issued past January 1, 2001. Within codification, there is a materiality standard, so especially for the last year a number of companies that may have technically been affected could say that this was de minimis, so no additional work

was needed. However, as that block of business—2001 and later business—grows, effectively codification may backdoor the Section 8 opinion, because your auditor wants to know what the effect of this Section 8 testing is. What would be in order to be able to disclose this in a footnote in your annual statement?

In summary, check the states for adoption; the Academy will try to send out alerts as we hear about them. File the executive summary in Florida for this year, and if you do work there, also make sure you read ASOPs 7 and 22.

An actuarial guideline that was passed in 2003, which means it is effective for companies this year-end, is GICs with bailouts. Specifically, it will require Type C interest rates to be used for reserving unless the actuary can show that another type makes sense because there is sufficient hedging. Therefore, the actuary has to do the work and has to look at it. From the work I've seen this year, most companies, because of the drop in the equity markets, are effectively setting up extra reserves above the accumulation of the charges. This is meant to be a temporary solution. A permanent solution is probably going to be tied to the proposed changes in the risk-based capital (RBC).

A lot of you have probably heard about the RBC Phase II work; this is headed up by Bob Brown, and a lot of work has been done on this project. It incorporates what is called conditional tail expectation (CTE). You have to look at the product under a number of different equity scenarios; CTE 90, for example, would mean that of the scenarios you looked at, you have to average the results of the worst 10 percent of the scenarios. Also within the RBC work, it won't say what the scenario is all about, but it will place limitations on how those scenarios are developed. So, effectively, one company should have a similar set of scenarios to another in order to have results that would be comparable from one company to another.

Within this project they've done something very interesting. They broke into teams, and each of the teams was given basically the same product but ran it under their own models. The results are similar. They're not exactly the same, so you will have results differing from one company to another, but they should be within a tolerance of each other.

It is a heck of a lot of work. If you think about it, you're running probably a thousand scenarios on thousands of different policies. Because of this, especially if you don't have that big of a block of a business, a number of companies have asked for safe harbors, and for certain variable annuity products and features they probably will have safe harbors. Again, this will be discussed at the NAIC meeting, which is happening as we speak. This particular subject will be discussed this weekend.

The variable annuity reserves project is expected to follow the RBC work based on the same type of approach. Instead of just picking the 85th percentile, for example, for reserves you may pick CTE 60 or something like that, which means you would

average the results of the 40 percent worst scenarios. This could be used for all sorts of variable annuity products, including GMDBs and enhanced early death benefits and living benefits. The goal of this group is to have the changes to reserves ready at the same time the RBC is adopted. Again, the hope is to have the RBC adopted by year-end 2004. It may be delayed.

There are a number of issues with both the RBC and the reserving for these products, including, for example, should they be based on pre- or post-tax numbers? Also, again you're not just looking at one fund. Every company has a different set of funds. How do you categorize these funds? How do you make the model cohesive enough but small enough to actually be able to run? What discount rate do you use for the fixed income side? What should you assume in the modeling? It is also clear for both the RBC and reserves that partial withdrawals will be treated; it is a question of exactly how they are going to be reflected in both of those. Again, safe harbors are being worked on, but that is a calculation-intensive process.

Probably the hottest issue that will be discussed tomorrow at LHATF is the dollar-for-dollar, free partial withdrawals. Just for those of you not involved with it, I'll give a brief summary of what that is. For most variable annuities, there's some sort of minimum death benefit guarantee. A lot of them were something that most people thought were pretty mild. It just guaranteed the return of premium. Others began to get much richer, for example, guaranteed return of premium accumulated at 5 percent a year forever or until age 85. Others said that your death benefit guarantee will be the highest annuity value that you ever had on the variable annuity.

The CARVM philosophy is the greatest present value of any possible path. For this product, what can happen is the death benefit guarantee was even return of premium. Under a dollar-for-dollar partial withdrawal, for someone with a \$300,000 account value and a \$1,000,000 guaranteed death benefit, he could take out \$299,000, have only \$1,000 in his account, but be guaranteed that he'd have a \$700,000 death benefit for the rest of his life. *The Wall Street Journal* wrote a few articles on this issue, but it really doesn't appear that that many people actually did take this option.

If CARVM were followed and 100 percent utilization was required, it would mean hundreds of millions of dollars of additional reserves for virtually any major writer of variable annuities. The accountants got hold of this issue last year and, for a number of companies, asked for a permitted practice letter and required that the companies disclose in the annual statement the potential effect of this. What is going to be happening tomorrow is a discussion of the issue. Some companies really don't want to even have to disclose their potential major impact of this benefit. There is something called Actuarial Guidelines VVV that is going to be discussed tomorrow. An Academy group originally went through all the options, a regulatory group looked at it, and at this point what it seems to be leading toward

is a requirement that the actuaries assume at this point that 20 percent of the people elect this benefit. Even with just the 20 percent number, the additional reserves may be substantial for some companies. I expect a pretty lively discussion tomorrow.

A lot of you may know that I normally write a summary of the LHATF meeting and put it on the SOA Web site at [www.soa.org](http://www.soa.org) underneath the discussion forum for life. I'll be here, and the meeting is there in Chicago; however, my associate Larry Gorski is going to the meeting, and he has volunteered or has been volunteered to write the summary of the meeting. Probably by Monday he will have posted to that Web site what happened at the meeting. Again, some people want a fast track of this, and it potentially will affect the reserves that have to be held for year-end 2003.

Actuarial Guideline AXXX has been adopted; it's called Actuarial Guideline 38. It did sweep in all term products. It also came up with the specific requirement for universal life, with secondary guarantees. Most companies at this point (well, virtually all companies) appear to be following it. The one area that a number of regulators are starting to question is the guarantees or the X factors used especially for older ages. A lot of companies are relying on their reinsurer to come up with their X factors. Some of the reinsurers may have a flat factor—for example, 40 percent of the 75–80 table is what they said your term factor should be. That doesn't make sense at the older ages, and it is the appointed actuaries' responsibility to make sure that the X factors make sense. There is an Academy project looking at specifically the assumptions made for our older-age mortality. This not only affects XXX, but it also affects the illustration actuary. This flat percentage is causing a problem. Again, at some point people do have to die. We can't assume that they live forever. To show the flat percentage is more liberal than the actual mortality experience under the population mortality and specific companies. Therefore, to do that is a violation of both XXX and the illustration actuary. This was discussed at LHATF. It was determined that the law doesn't have to change with the regulation, because the regulation says that's not allowed. The Academy group is suggesting a revision to the practice note to make this very clear, what the problem is and why something has to be done.

I have just a few comments on nonforfeiture. Last year I was mentioning Regulation XYZ, which is that universal life with secondary guarantees would have required some sort of nonforfeiture. The work at LHATF on this one was withdrawn, specifically because the expectation is that the general nonforfeiture project is going to be making progress in the future. The work is continuing from both the Academy side and the regulatory side to change the nonforfeiture law. It is expected to be a lot less restrictive than the current one, a lot less formulaic. The tradeoff will be a lot more disclosure to both the policyholder and to the states. Again, this is a topic that will be discussed at the LHATF meeting tomorrow.

One thing that LHATF did take action on in 2003 was the change to the annuity nonforfeiture interest rate. Right now, the changes allow the interest rates to be based on the five-year Treasury, less a spread, with a minimum of 1 percent interest. Equity index annuities can have an even lower spread if the actuary can certify that the guarantee is all worth a certain number of basis points. This looks straightforward, but there are certain issues because currently the nonforfeiture changes will allow nonforfeiture rates to be updated within a policy. The question is, if somebody can update the nonforfeiture rate, what reserve rates should be used? It is a good open question.

Another change in the annuity nonforfeiture regulation is that the load was changed to 12.5 percent. For single-premium-deferred annuities (SPDAs), that's a liberalization. For flexible premium deferred annuities (FPDAs), this may be more conservative. The current law allows you to have first-year loads on FPDAs to be 35 percent, and some companies did take advantage of that. With these changes, the maximum you can have is that 12.5 percent. Therefore, if you have the old FPDA design, it will have to be repriced and refiled with the states. Because of the interest rate decreases, the nonforfeiture changes on the annuity side have been fast-tracked, and a number of states have adopted this or something similar.

I'd like to spend the rest of my time going through what will finally be known as Halloween letter Phase 2. New York took a page from the great state of Illinois and will now be coming out with what they are calling the Halloween letter. Last year they called it a holiday letter because it almost made it out in time for Christmas. This year it will probably be out relatively soon; in fact, there is a draft copy already out with various requirements. Again, it specifically affects companies that do work in New York, but the issues that are being discussed are also of concern to a number of other regulators, so I figured I'd go through the highlights of the draft as it's currently written. And again, it's a draft, so it may change.

Again, the New York State Insurance Department has been working with the industry group called Life Insurance Companies of New York. One of the requests was to coordinate with other states. New York has talked to, for example, California and tried to be consistent wherever possible in terms of the requests.

One of the hot buttons is showing the interim results. They will probably require it for all New York Seven scenarios. California has had this as a requirement for a number of years, and they're looking for effectively the same thing California has right now. There was a Life Insurance Council of New York minigroup looking into, okay, you're showing the interim results, what should you do with them? And the minigroup did determine that there are certain circumstances where if negative interim results appear in a number of scenarios, reserves should be increased. It was somewhere close to impossible to come up with a black and white rule, so therefore at this point it will probably be on a case-by-case basis, but it is something that they expect the actuary to look at. And again, if you wind up with



negative interim results, especially under several scenarios, they expect you to either put up extra reserves or to explain why the reserves are not needed.

Another hot button has been the asset assumptions. Some actuaries appear to rely on outside consultants, or models, basically a black box. And this is not acceptable to the department. They want to make sure that the call and prepayment assumptions, for example, make sense.

Another hot button issue is the spreads to Treasuries that are being used for the corporate bond assumption, for example. What happened is a number of companies in 2001–2 used this high spread with historical default rates. That's obviously a disconnect, because the reason that the spreads were high was the market was pricing in higher than average default rates. So, at least the draft of the letter says, you have to use historical spreads, historical default rates or current spreads, current expectations of default. They will also ask for the same test they did last year, which was a net spread of 100 basis points, as a sensitivity test.

Another issue is what is the assumption on equity-type assets such as common stock or real estate? Some companies assume something really simple like it will earn 15 percent under every environment. This is really not a good assumption because these type assets are pretty volatile, so you can test volatility, and for New York at least, you have to test an assumption that these assets earn only 3 percent.

Variable products obviously are a major concern. They want many more details on variable annuity guaranteed living benefits and GMDBs. They also want to know your actual experience. And actually it would help companies to show what your actual withdrawal experience is, what your actual partial withdrawals experience is, on these products. I'm saying show—I mean actually in the actual memorandum. And they do read them.

Another concern this year is a variable annuity that has a fixed bucket. People can transfer in from the variable to the fixed, and some of those fixed buckets have interest rates of up to 5.5 percent or even higher, and the smart people are actually transferring. So they want to know whether or not you're reflecting that in your model. They also want to make sure that your sensitivity testing covers major risks, such as the partial withdrawals, and also of concern with the market decreasing 30+ percent is making sure that your expense margins will cover your actual expenses.

Another hot issue is that they want more details on the products within the actual memorandum. They actually want to see what interest rates you're crediting, to compare those to what your model is going to assume you're going to do for interest rates in the future. They also want you to spell out the risk of the products. For example, for FPDAs, a lot of companies used to test assuming that there would be no additional premiums into the FPDAs, and that probably wasn't a bad assumption. Now, with the minimum interest rate guarantees being a factor, it's

actually more conservative to assume that new money is coming in, and they want you to reflect that.

LTC is a product that they are getting a little bit more concerned about. Some actuaries say, "Well, if we ever had bad experience, we just have rate increases." But the problem is that the rate increase getting through states normally takes a while, and sometimes you don't get what you really want. So you have to reflect that in your modeling.

Another hot button issue is reinsurance. In order to get the reinsurance credit, and this is both the NAIC model and New York, all of the risks of the product must be passed to the reinsurer. That means if your reinsurance has some sort of cap, some sort of limitations: for example, for the GMDBs, it won't pay if the market goes down more than 30 percent, it will only pay that corridor; you cannot get reserve credit in New York for that. Also, some reinsurers are not as healthy as they used to be. If you're doing the modeling, one of the things that New York wants you to do is to check your reinsurer, make sure you feel comfortable that they will be around to pay the reserves. No, there's no guarantee, but the thing is, if there is a reinsurer who is obviously in trouble, you may want to consider not reflecting benefits from that reinsurer.

Another thing that is of concern is the verification of data. They want to see you tying your actual results to model results: your annual statement versus what comes out of, for example, the first year of your modeling under the level scenario. Tying means all the major assumptions, renewal premiums. What are the asset earnings? The old exhibits 2 and 3 are compared to what your model is showing. Are your surrenders for your model consistent with what your actual surrenders are?

For balance sheet items, make sure that your model is really close to the annual statement of reserves: including amount at risk, account values or cash values. They want to make sure that you don't rely on the opinions of other actuaries within your actuarial opinion. Yes, other actuaries can do the work, but bottom line, if your name is on it, you have to have reviewed it and feel comfortable. They don't want you to say the results are reviewed where practical. They want you to actually review all of the major results and all the major assumptions.

There are not that many companies that had to do RBC Phase I, but there are some. For those companies where it is a requirement that you have an actual report behind that, (a) make sure that it's written, and (b) remember that RBC Phase I and eventually Phase II are a surplus test, not a reserve test. It really should be more stringent, so the assumption should be revisited to make sure that it makes sense as a surplus test. Also, if your opinion is going to be late, they want the executive summary by the deadline, and they also want to make sure that your testing is actually done and the only reason your memorandum is late is because you're having a hard time getting it typed. The bottom line is if you're going to sign

your name to something, you have to be pretty sure that there are no current issues.

New York and other states are moving more toward not just reserve testing, but reserve insolvency reviews, basically the overall risk management of the company. They will ask questions regarding liquidity and risk management, and these questions are typically asked of the appointed actuary. For example, New York has a number of outside consultants, including myself, who will go to companies and ask, for example, what are the liquidity issues? How have you handled your risk management? What are the major concerns of the company? What are the major businesses that you are getting into, considering selling, etc.? The reason being, again, that the feeling is that the appointed actuary shouldn't just do road testing, but they should understand their company, understand the risks. That doesn't mean you don't have a risk, it just means you understand them, and you'll have some program to handle them one way or the other.

There are committees at the NAIC right now that are looking at this issue in specific detail. They are also meeting this weekend to discuss risk management, and future examinations are going to detail that. So again, the appointed actuary's job is probably going to be expanded even more in the future.

I'd like to sign off on a commercial. To sign annual statements, actuaries must meet certain requirements by our qualifications standards. This includes an exam on specific topics such as U.S. regulatory requirements. The exams under the SOA 2000 syllabus do not meet these basic requirements. Therefore, if you're in this room and you've taken these exams under the new syllabus, and you have not taken the Academy's qualification seminar, you are not qualified and therefore cannot sign annual statements. The Academy does offer a course this year, to be given November 11–14, to cover this. To fulfill the requirements there is an exam at the end. The class is limited to 50 people. So far 42 are signed up, so there are eight spots open. So anybody who is in this category, or actually anyone who wants the 18 hours of professional development, it's also a good course for going over asset-adequacy testing. You can go to the Academy Web site [www.actuary.org](http://www.actuary.org) for more information.

**FROM THE FLOOR:** For Actuarial Guideline VVV, is it a one-time 20 percent withdrawal, or is it 20 percent potentially going out in the future?

**MS. CLAIRE:** VVV actually goes more than the straight 20 percent in the current year. If VVV is adopted, it affects actually all variable annuities, and, yes, it's not just simply assuming 20 percent this year, the way I'm reading it. As I said, I have no idea what's going to happen tomorrow, but it is obviously a major issue for any writers of this product.

**FROM THE FLOOR:** Another issue I want to talk about is transition to the 2001 CSO. While it is true an IRS guideline applies to Section 807, and therefore will

apply to the calculation of reserves, when the 2001 CSO is adopted in 26 states, three full calendar years will be allowed for the phase-in. That guidance doesn't apply to 7702 or 7702A. We're asking to use the 1980 CSO as the prevailing table through the end of calendar year 2008. We don't know what we will get, but the three-year transition does not apply to those sections. We do need a transition rule. The reason why this is so critical is because if we do not have a transition rule, every traditional writer who does not have the 2001 as their current table would be immediately put out of business if a transition for 7702A is not in place.

**MR. SKALECKI:** I'll try to repeat and paraphrase. Basically, and I tried to allude to this in the presentation, the three-year phase-in period for tax reserves for 807 reserves is definitely in the law. The three-year phase-in period for 7702 and 7702A is not in the law because we have never been in a situation before with 7702 where new tables came along. So there is no guarantee that there will be that three-year phase-in period. It is felt by some and maybe many that the IRS will extend that three-year phase-in period of 7702 and 7702A, but there's nothing in the law that says that. And the reason why this is so important that we have the three-year phase-in period is because it could put traditional writers out of business if you're required to meet the definition of life insurance under the 1980 CSO, but yet at minimum cash values according to 2001 CSO.

**FROM THE FLOOR:** Is New York going to come up with, in fact, default asset assumptions?

**MS. CLAIRE:** The answer in general is no for calls and prepayment, but it is expected that they will require the same sensitivity test they did last year, the 100 percent net basis point spreads on Treasuries, and the 3 percent on equity-type assets.

**FROM THE FLOOR:** Donna, what is the anticipated timeframe for Actuarial Guideline VVV?

**MS. CLAIRE:** It will be discussed this weekend. At the June LHATF meeting, a number of companies really wanted something in effect by this year-end. So therefore, there is a real potential that they will do something this weekend, one way or the other, that will affect this year-end. Either VVV or something similar will be adopted, or even by effectively doing nothing. At this point, I think, virtually any of the auditors is going to make you disclose that amount in your annual statement. So, bottom line, what's going to happen tomorrow is going to affect that type of product.

At one point there was concern about what the tax consequences would be regarding GMDBs and partial withdrawals. Actually there was an IRS ruling—I think it was probably related—but either way they said that you really would not have adverse tax consequences. The bottom line is, yes, I think the intelligent people are doing it. It's the same as what happens when not everybody refinances their

mortgages, but after a while a lot more people refinance mortgages than they expected. It really depends on what the market is going to do. A lot of it is people being lazy. Some of the companies are being very, very strong with, for example, their brokers. They're telling them you cannot do this. Legitimately, and actually for your CLU, it's actually really the best thing for the client. But basically the company is getting really annoyed at you, and a lot of the companies are tracking this very closely. So, yes, the 20 percent is very arbitrary, but at this point, any of the companies I've seen haven't had very large partial withdrawals to this point. The highest I've seen, and again, it's just total partial withdrawals, has been in the neighborhood of three. Again, I obviously haven't seen everybody. There's some of this going on, but the companies in the market claim that it is pretty low at this point. But if the equity market stays down, that may not stay there. And if *The Wall Street Journal* continues to write about it, this is a potential major issue for the industry.

**MR. SKALECKI:** When will there be a three-year phase-in period? I believe it means that they can begin using the table if they want to right away. Okay, so they could if they want to have their tax mortality on the same basis as their statutory mortality. There's no reason why, in this 2001 CSO stat, they have to keep it as a 1980 CSO for tax. For some products, companies will want to phase in 2001 CSO as quickly as possible, because that will give them more reserves. For other products, they might want to stick with 1980 CSO longer because that can give them a higher inside tax buildup.

**MS. CLAIRE:** This is, in effect, almost the same issue as the interest rates being different. The tax reserve interest rates always have been different, so effectively you can sort of have various combinations at this point, mortality tables versus interest rates for both the taxes and stat.

Actually it was sort of interesting because I guess partly how the markets were going, the reviews that we were doing this year—the ones that we were specifically doing—in effect, the reserve credit was actually negative. If you go through the formula, sometimes in effect you have to add reserves if the number ones happen to be negative. Working through the guideline and that actually, bottom line, they say we'll allow negative, they won't allow positive. Yes, it is catastrophic, but the problem is, it's a question of if your catastrophic is possible to somebody else. The bottom line is, the law was written as all risks; in a catastrophe, you would therefore have to be taking it off, and they don't want that. Both by the model and by New York law, it's not allowed.

So, the bottom line is yes. You can do the calculation as you do; if it winds up negative, you can add reserves but they want you to floor it to zero. Yes, this actually will be an issue going forward. With all the new treaties that I've seen, the reinsurers are getting a little smarter and realizing catastrophes do happen. And they have to be around to handle the rest in general. They did want to limit it, so the bottom line is, for GMDBs, my guess is, unless there's a major push, you will

not be getting reserve credit for reinsurance.