2002 Valuation Actuary Symposium

September 19–20, 2002
Lake Buena Vista, Florida

Session 2PD
Life and Annuity Statutory Valuation Issues

Moderator: Meredith A. Ratajczak

Panelists: Thomas A. Campbell
Donna R. Claire

Summary: This session introduces the major statutory valuation issues, which are covered in-depth at subsequent sessions. Life and annuity valuation issues covered by the panelists include actuarial guidelines for variable products with guaranteed living benefits (MMMM), Amendments to the Actuarial Opinion and Memorandum Regulation (AOMR), Regulation XXX mortality factors, and adoption of the 2001 CSO for valuation.

MS. MEREDITH A. RATAJCZAK: Each year this session gives you an overview of the current valuation issues and possible regulatory changes that will impact the work that you do as an appointed actuary or what's done in the financial reporting area. The rest of the sessions throughout the symposium will cover these topics in a lot more detail.

We're very lucky to have two very distinguished panelists. Our first is Tom Campbell. Tom is vice-president and corporate actuary of Hartford Life Insurance Companies in Simsbury, Connecticut. He has been with the Hartford since 1983. Tom is the appointed actuary for Hartford Life and is responsible for actuarial review, financial reporting, reserve valuation, and actuarial compliance. He's actively involved in the American Academy of Actuaries' activities. He is a current member of the Academy's Life Practice Council and chairs its Life Valuation Committee. He also co-chairs the Academy's Variable Annuity Guaranteed Living Benefits Work Group. Tom has also represented the Academy as a member of the AICPA's Non-Traditional, Long Duration Contracts Task Force and co-chaired the Minimum Guaranteed Death Benefit Reserve Group, and the Commissioner's Annuity Reserve Valuation Method (CARVM) Multiple Benefits Working Group.

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Our second presenter is Donna Claire. Donna is president of Claire Thinking. She engages in general insurance consulting with a focus on asset and liability and risk management and regulatory matters. She is the vice-chair of the American Academy of Actuaries' Life Practice Council. Donna has chaired or participated in several industry advisory groups including the American Academy of Actuaries' Life Liquidity Risk Management Working Group, the Academy's Variable Annuities with Guaranteed Living Benefits Working Group, and the Academy's Life Practice Notes Committee. She is a member of the board of governors of the American Academy of Actuaries. I'll turn the floor over to Tom.

MR. THOMAS A. CAMPBELL: I'm going to start off by talking about four different topics. First is going to be variable annuity guaranteed benefits, both the statutory reserve requirement for guaranteed living benefits, also known as variable annuity guaranteed living benefits (VAGLBs), and risk-based capital (RBC) requirements for death benefits and living benefits. Then I'm going to talk about potential Standard Valuation Law updates, GAAP developments, and codification issues.

I'm going to start with the variable annuity guaranteed benefits and Actuarial Guideline MMMM that covers statutory reserves for VAGLBs. The American Academy of Actuaries has been working on this for several years. I speak at this session each year, and I come in and I tell everybody we're really close to adoption. This time I really mean it. Back in April, the NAIC Life/Health Actuarial Task Force decided to make a major change in direction. Guideline MMMM had a prospective reserve approach, and it was commonly called the Keel method. I'm here to report that the Keel method has keeled over for a couple of reasons.

The first reason has to do with the complexity of the Keel method. The prospective method was part of the integrated CARVM methodology that we used in Guideline 34 and Guideline 33, but it involved projecting the account value at a large number of stochastic scenarios. You could use the single scenario keel, but that wasn't available for all benefits. So there was concern about the complexity that this guideline had. What's more important is the second reason. The method didn't work well with the proposed RBC framework that I'm going to talk about later.

The Life and Health Actuarial Task Force (LHATF) didn't want to implement the prospective method now and then go back and have to make changes when the RBC was put in place which could be as early as next year. LHATF decided to go with a simplified interim approach until a more permanent approach could be put in place, one that would build on the RBC approach. So the requirement is that you hold the reserve for the base variable annuity contract, ignoring the VAGLB benefits and the VAGLB fees. You hold the reserve for the VAGLB, which is the sum of the fees that you charge for the benefit. So it's an accumulation at 0%.

There is also a requirement that you hold the reserve for the VAGLB in the general account. In addition, the draft guideline requires that, in order to support this reserve, you have to do a stand-alone asset adequacy analysis. That's done at the benefit level. You take the VAGLB benefits and expenses and all future charges. You also take the asset supporting the current benefit and do a stand-alone analysis. Many companies already do this as part of their overall asset adequacy analysis, but having to do this stand-alone analysis is a new requirement.

The guideline also addresses reinsurance but doesn't get too prescriptive for ceded reinsurance. For assumed, you use the same methodology as is used for direct business. You accumulate the gross premiums, and you have to do the analysis.

The effective date of this guideline is December 31, 2002. LHATF is exposing this and is trying to get it adopted before year-end. So they're going to get comments in October, and they're trying to fast track it. However, California says its rule is whatever the NAIC has exposed. If you're filing business in California, you have to use that methodology. So this stand-alone analysis is a new thing.

Turning to risk-based capital, I want to cover what's in place. There are currently very temporary factors that are there just for VAGLBs. They've been there since 1999. The interim factors use the current C-3 factors. It's a 2% high-risk factor, and that 2% is applied to the total variable annuity reserve, including the VAGLB reserve and the base reserves for those contracts that have VAGLBs. You can use the 1% medium risk factor if you do a clean actuarial opinion for your company, but only for contracts where the benefit is out of the money on the valuation date. Say you have a guaranteed minimum accumulation benefit (GMAB) type benefit, and you still have eight years on the waiting period, and it's a return of premium. If the account value is below the premium, and probably many of them today are, you can't use the 1% factor. For minimum guaranteed death benefits, there is no current explicit requirement, but that's about to change.

The Academy has a Risk-Based Capital Committee that is working on a C-3, Phase 2 project, and Bob Brown of CIGNA is heading that up. The goal is to develop a recommendation for the NAIC Life Risk-Based Capital Task Force for requirements for risk-based capital for both living and death benefits offered with variable annuities. The approach that's currently being discussed has elements of the approach used in Canada and developed by the Canadian Institute of Actuaries. It involves modeling the benefit using stochastic scenarios, and it has the concept of continuous tail expectation, which I'll talk about in a second. It uses that instead of the percentiles.

It also allows companies to use best-estimate parameters subject to margin and subject to actuarial standards for assumptions like lapses, mortality, and annuitization. It's moving towards the long-term vision that the Academy's Life Practice Council has which would shift from the current formula rules-based reserve RBC approach towards a less formulaic solvency approach for reserves and risk-based capital. These benefits are an ideal target for a first pass at this approach because of the risk profile of the benefits. If it's successful, it can be used for many other products, and I'll talk about this in a second.

The way the approach works is to run a large number of stochastic scenarios, and for each scenario, take the present value of the statutory losses, including a change in reserves. That gives you the greatest present value of accumulated losses for that particular scenario. In this example, we have a scenario with very early year losses followed by a large gain in year three. In year two, the cumulative loss is at its greatest. It's at minus 30. Under this approach, you would discount the absolute value of that 30 back to the valuation date, and that's the result for that scenario. You would do this for a bunch of scenarios. If you got no statutory losses, you would floor it at zero.

Once you have results for all scenarios, you rank them, and you take the average of the worst 10%. That's what's called 90 CTE. The CTE is different from the percentile in that it allows recognition of the extreme tail risk that these benefits have. The greatest present value of cumulative losses is consistent with the concept of risk-based capital, in that it covers the company's ability to withstand a period of high-impact scenarios, including the impact of the change in reserves. Under this example, the fact that you have a really nice gain in year three means nothing if you can't withstand the losses in the first two years.

LHATF is looking into a more permanent approach that, for reserves for VAGLBs, would build on this approach. In fact, they are beginning to explore using the same structure with a different CTE. They've thrown out 60 to 65 CTE as a reserve method. This could also be used to replace Guideline 34 as the reserve approach for minimum guaranteed death benefits. I know this morning Colin had made a comment that AG 34 is a really good requirement. However, many people think it's volatile. In addition, we have earning enhancement death benefits where the risk is the funds overperformance. Guideline 34 doesn't really fit for those. The CTE approach may be the solution to these issues. LHATF is going to be discussing this in the near future, and they're also going to be watching what happens on the RBC side.

There are a couple of key issues that need to be resolved before this approach is implemented. The Academy work group is working on recommending solutions. The first is the treatment of reserves, and this is important because, if you have a stochastic reserve method that you put into this model, you're running stochastic on top of stochastic, and it's really going to clog up your computer runtime. They're looking at different alternatives including using an assumption of reserves equal to cash value just for these calculations. Contractholder behavior is another key assumption. It's not clear as to whether there's going to be any lapse selection. If I have benefits in the money, I'm not going to lapse.

There's no clear-cut thought as to what's going to happen with annuitization experience. The current proposal is to use your own company experience with a margin, but because there's so much unknown, it's going to require a lot of additional margin. So this is being looked at. The fund performance assumption is another critical assumption, and they're looking to allow companies to use their own distribution subject to meeting minimums and maximums on the tails. A fixed-interest rate assumption is another thing they're working on, and that's key for guaranteed minimum income benefits because your annuitization benefits are more or less conservative depending on what interest rates do.

Another issue is discount rates. They may use an after-tax rate for risk-based capital and a pre-tax rate for reserves. That's going to create some logistical issues. Finally, what I don't have up here is the treatment of hedges and how that's going to enter into the analysis. If they answer all these issues, RBC could be in place as early as year-end 2003. There's a big push by the regulators to get something in place because the current interim requirement doesn't quite fit the risk profile of these benefits. The application of this approach to reserves could possibly be ready by the end of 2003, but more likely it's going to be 2004 or 2005.

So that brings me to the second topic, which is potential Standard Valuation Law updates. These are updates that are being explored by both the Life/Health Actuarial Task Force and the Academy's Life Practice Council. We're looking at two different levels of changes. The first is really more specific changes to the law. Over the last few quarters, LHATF has been discussing these changes, and they expect to decide whether or not to take action over the next few months. There are at least five different items that are being considered.

The first is the form of the actuarial opinion. The Standard Valuation Law currently requires that the opinion be given on a state-of-filing level. There's a new Actuarial Opinion and Memorandum Regulation (AOMR) requirement that Donna is going to talk about that will allow states to accept the state of domicile opinion, but this goes one step further. They're looking at actually putting in the Standard Valuation Law the fact that you only have to give a state-of-domicile opinion. That's going to take the form of the state being able to waive the requirement that the reserve standards be met for their state for a company that's not domiciled in that state. It would require that asset adequacy analysis be performed for that opinion. LHATF is also considering a minimum risk-based capital ratio, which is a very controversial issue that I'm sure will get a lot of comments. It's also going to retain the state's right to always ask for a state-of-filing opinion. This is a key issue, and we'll see how this works out.

The second one is another pretty big one, and that's the elimination of deficiency reserves. Many people argue that deficiency reserves aren't needed, because of asset adequacy analysis. In addition, with XXX and the X factors, a lot of the deficiency reserves have already been reduced or eliminated. LHATF is also looking at whether they want to apply the elimination on a retroactive basis so it would apply to a company's in-force business. That's a key issue, and we'll see how that works out.

The other three are kind of minor things. One would be to add a reference to health plans in the Standard Valuation Law. The other one is, going forward, should the general scope of this be general or specific. It needs to be general enough so there's no questions about the applicability of requirements for future products and future benefits. It must also be specific enough so you know exactly what it applies to. Finally, there's the good-standing category of membership in the American Academy of Actuaries that is referenced in the law. They're looking to change that to qualified actuary, which is supported by the Actuarial Standards Board.

The second level of Standard Valuation Law changes being explored is a long-term statutory solution. It's being looked at by a work group of the Academy's Life Practice Council headed up by Dave Sandberg. They just started a recent discussion with LHATF, although the group has done a lot of work. They're actually identifying potential future solutions for a solvency framework that would include both reserves and risk-based capital. There's no recommendations yet. They're really just identifying pros and cons of different solutions or directions. What they're doing is starting with the principles of the Unified Valuation System (UVS). We talked about that for years, from 1997 to about the end of 2000. Although that project wasn't successful as an end product, there were a lot of really good concepts that came out of it. Since then, there have been a lot of changes to the regulatory environment for the financial services industry, both in the U.S. and internationally.

The group is looking at things like C-3 Phase 2, the X Factors in XXX, the Basil 2 Accord that applies to banks, and some of the solvency standards that are being developed in Europe and Canada. They're using this knowledge base to look at different combinations of formula-based and modeling-based methodologies for reserves and capital. You might have a formula-based reserve but modeling-based risk-based capital. Or you might go the route of the C-3 Phase 2 approach for reserves and RBG. What you can get is different combinations that can be used for different products. You can use the modeling for VAGLBs. For whole life, you can probably use more formula-based methods. They're looking at pros and cons of all these different directions, and they'll be discussing internally and with LHATF to establish their vision and the goals of what they want to do going forward.

That brings us to the third topic, which is the GAAP side of the world. I'm going to talk about several developments that might be of interest to valuation actuaries. Many of these are going to be covered by other sessions, so I'll try to be brief. Many of these developments bring with them elements of fair value. It's becoming a fair-value world. There are even discussions about whether we'll be going to full-blown fair value in the near future rather than chipping away at it, as we've seen. I want to start by talking about three recently adopted FASB standards that involve fair value. There has always been a lot of talk about how difficult it is to fair value insurance products, but guess what? I think, for the most part, we're already doing it.

Financial Accounting Standard (FAS) 133 covers accounting for derivatives. It requires that all derivatives meeting certain criteria be valued at fair value, but it also applies to insurance products like guaranteed minimum accumulation benefits offered with variable annuities and with equity-indexed annuities. Posted on the Academy Website is a list of frequently asked questions that were put together by the Life Financial Reporting Committee of the Life Practice Council. If you have questions about *FAS 133*, you can look there. It is a good source.

The second standard is *FAS 141,* which applies to business combinations. It requires you to purchase GAAP, which is a fair-value type methodology for business combination transactions. You're no longer allowed to use the pooling-of-interest method, which was more of a book-value method.

The third standard is *FAS 142,* which applies to goodwill, and what that does is it eliminates the amortization of goodwill. It requires you to test the goodwill asset for impairment on at least an annual basis. What you have to do is compare that asset to the fair value of the reporting unit to which you've assigned that goodwill asset. Therefore, if you have an acquired block on your books, you have to do fair value for a portion of your company. Those are the three fair-value-related standards.

Next, I'd like to discuss other GAAP requirements that are in the works. The International Accounting Standards Board is currently looking to develop a single set of accounting standards that would be used worldwide. Currently, there's no accounting standard for insurance contracts. Companies are using what's called IAS 39, which requires fair value. It creates problems similar to what we have in the U.S. with *FAS 115* and *FAS 133*, which is the mismatch of assets and liabilities under certain circumstances. The IASB is now looking at a draft statement of principles (DSOP) that could form the basis of a worldwide accounting standard for insurance contracts. The draft currently requires fair value. It applies to insurance contracts at this time but that doesn't apply to investment contracts yet. There have been a lot of comments received as to whether or not it makes sense to go fair value for insurance contracts and how you would actually do fair values for these contracts. There are issues such as how do you treat the creditworthiness of the insurance company?

There's a lot of work being done, and a lot of comments being received, but the draft SOP is expected to be finalized in late 2003. It's not clear whether investment contracts or even insurance contracts are going to be in here. Since this affects international, you might wonder why you have to worry about this if you work for a U.S. company. I don't have to worry about that. I think you do because if the International Accounting Standards Board (IASB) comes out with these standards, FASB is going to be pressured to do the same thing. In fact, they are looking at fair value for financial instruments on their own. Therefore, this is a critical issue. It's not clear what fair value would look like, but FASB has a directive to replace *FAS 107*, which is disclosure of fair values, with a more robust standard, which would include how you determine fair value. They're looking at completing that as early as 2003. You really need to get involved in this if you're concerned, and if you have comments.

Two other things on the GAAP side. These aren't fair value related. This involves two statement of positions (SOPs) that the AICPA is working on, which are interpretations of current GAAP standards—*FAS 97 and FAS 60*. Both of these standards, one on nontraditional, long-duration products and another on internal replacements, were developed with actuarial input. The SOP on nontraditional products has been cleared by FASB and is out for public exposure. They're taking comments to the end of October. It has a January 1, 2004 effective date. Most of the SOP is required to be applied on a retroactive basis. It'll apply to your in-force with some transition rules. It was developed to address the diversity of practice regarding how companies were applying *FAS 97* and *FAS 60* to a lot of the new and innovative products and benefits.

There are four key issues that are addressed by the SOP. First is one's separate account presentation, and what it says is that only pure pass-through variable type products are allowed to be reported in the separate account, (for example, variable annuity and variable life). You can have the death benefits and the guaranteed living benefits, and you still get the separate account treatment. Any additional reserves for those benefits have to be held in the general account. It also deals with separate account seed money. It deals with sales inducements like bonus interest and enhanced interest rates. It concludes that you can defer those benefits if they meet certain criteria, and you amortize them over estimated gross profits. So you essentially treat them like deferred acquisition costs (DAC).

Finally, the SOP has a conceptual framework for GAAP reserves and includes a methodology for minimum guaranteed death benefits. But the SOP concludes that no additional liabilities can be held for annuitization options, such as the guaranteed minimum income benefits (GMIB) or even the annuitization portion of two-tiered annuities. I think Colin kind of stole my thunder at the general session about this. My position is that I'm really concerned with the conclusion that you can't hold a reserve for a GMIB. My company doesn't offer these benefits, so maybe it's easy for me to say this. I'm really concerned that even if the risk is in the money, you can't hold the reserve. How are you going to communicate that to the public when the public really isn't believing what people tell them to begin with?

That's something that I think will hopefully get a lot of comments. I know I'm going to try to comment on it myself. When you look at all the variable annuity guaranteed benefits, you see completely different GAAP reserve treatment. You have fair value for guaranteed minimum accumulation benefits (GMABs). You have the SOP applying to guaranteed minimum death benefits (GMDBs), but there is nothing for the GMIBs, and yet all three are very similar benefits. It's a little confusing, so maybe the answer is fair value. I'd say be careful of what you ask for regarding fair value.

Let's turn to the internal replacements SOP. This is in the works. The SOP is not final yet. The AICPA is looking to finalize it in 2003. They've got a January 1, 2004 effective date. This is going to be applied on a prospective basis. It addresses accounting for situations where insurance contracts are replaced and there's no specific guidance in *FAS 97*. While the focus is on unamortized DAC, it also applies to other GAAP balances.

The SOP starts by defining internal replacements, and there it says that the scope specifically excludes changes that are in accordance with the existing contract provisions, as long as those provisions meet certain criteria.

It then does a test to determine whether a replacement is or is not substantially different from the original contract. If it is substantially different, the SOP requires that you extinguish the initial contract. You treat it like a surrender. You write off all the unamortized DAC and any other GAAP balances. If it's not substantially different, you continue the unamortized DAC and all the other GAAP balances. You treat the estimated gross profit (EGP) of the replacement contract as revisions to the EGPs of the original contract. That implies there's some true-up or unlocking. You also defer any charges for the replacement that you're allowed to defer under *FAS 97* or *FAS 60* in the original contract.

This is the direction they're taking, and drafts are not public until they actually go to the Executive Committee of the AICPA. If you're interested in this, you might want to discuss it with your auditing firm because all the major firms do have representation on this task force.

That covers GAAP. Now I'm going to discuss two statutory codification issues. The first comment is that many states are going through the process of looking at codification and identifying how their regulations differ from what's in codification. I know I just met with a group of companies with the Connecticut Insurance Department, and I'm sure that's happening across the country. So if you're interested in what's going on, you may want to try to get plugged into that process in your state of domicile.

The second comment is a little more involved, and it has to do with the position taken by the NAIC's Statutory Accounting Principles Work Group. There's an appendix, A205, and it requires that you disclose any material deviations from codification in a footnote in the annual statement. Typically, such a disclosure would come from situations where reserves held are lower than codification. The question came to the NAIC. What happens if I'm holding higher reserves? Do I have to disclose that? What happens if your state requires a more conservative mortality table or, for some other reason, you hold higher reserves?

The Statutory Accounting Practices (SAP) Work Group said you do have to disclose that. You have to disclose both higher and lower reserves, despite the fact that many actuaries, including some that are members of LHATF (who were asked to give feedback on this issue), believe codification defines minimum reserve standards. So if I'm holding higher reserves, I'm meeting your standards. They still said you have to disclose that. You do have to disclose that, but it should really only impact 2001 and later issues because codification only applies to those. Codification says that for anything issued prior to 2001, you use the standards of your state of domicile.

MS. DONNA R. CLAIRE: The first and probably most important thing that happened at LHATF at the September meeting was that the 2000 CSO Mortality Table was adopted. Therefore, it is possible that as early as 2003 some states will adopt it. The absolute required last date is 2009. Originally it was 2008. Again, even though it doesn't affect this year-end for valuation actuaries, what this will mean is that virtually every single life insurance product will have to be re-priced and re-filed and all reserve systems will have to be updated. So there's an awful lot of work that is involved because of the adoption of this new table.

Of course, statutory reserves will be impacted. For some products, the reserve decrease could be as much as 30%. The reserve decrease will be much lower. For tax reserves, you have to wait until it becomes the prevailing table, which is when 26 states adopt it. Originally they were guessing 2005. This may go to 2006. There might be some 7702 issues. That is right now hard coded. There's obviously going to be some nonforfeiture issues. You are going to have to refile things like cost of insurance on variable universal life products, if you're using the maximum charges based on the mortality table. There is a session on the 2001 CSO implications.

There are also some really good reports out there on this new mortality table. One of them is the November 2001 Individual Life Insurance Mortality Task Force report that has been updated slightly from the March report. That's available on the SOA Website. The actual valuation table was done by an Academy of Actuaries' committee headed by Faye Albert. This report is available on the Academy Website. It's the American Academy of Actuaries' Final Report on the 2001 CSO Table dated June of 2002. They started with the basic mortality table from the SOA, and it has about a 15% margin.

There was a second Academy group looking specifically at what the implications of this new mortality table are on companies' own products. They also issued a report that was presented at the September LHATF meeting, which is called the Academy of Actuaries' Report on CSO Implications Work Group. Table 1 is from the last report. It shows the reduction in the safe harbor premium limits for universal life for the guideline level premium death benefit and the seven-pay premium?

TABLE 1

2001 CSO Reduction in Safe Harbor Premium Limits

Percent Reduction in Single Life Premium Limits				
	Male Nonsmoker	**Female Nonsmoker**	**Male Smoker**	**Female Smoker**
Guideline Level Premium Level DB	15–20%	15–30%	15–20%	0–20%
Seven-Pay Premium	10–15%	10–15%	5–15%	0–5%

You’ll notice they are different for different groups, but in general, it is about a 15% or 20% reduction. A 15% or 20% reduction in mortality is probably the average. As for the female, there’s more volatility in the reduction. It looks like the numbers are higher but, on the average, the female reduction was probably a bit lower than the males. The reduction in the smoker is smaller than the nonsmoker because there is more information on the mortality of the smoker, as a group. The mortality is definitely worse.

One of the major things that both the SOA and the Academy report emphasized was this 2001 Mortality Table. It’s not a one-size-fits-all proposition. Depending on the company, there could be a lot of variation. If you’re in a niche market, and if you have different underwriting standards, such as guaranteed issue or simplified issue, this table might not be appropriate. One of the requirements of using the new table is for the actuary to do a Section 8 asset adequacy opinion. The actuary has to feel comfortable that the resulting reserves are sufficient. As I mentioned, the reserves from the guaranteed issue and simplified issue tables might not be sufficient.

In addition, one of the other areas that you might want to consider is, for example, if you do a lot of underwriting on lives overseas. Some of the other countries don’t have the same mortality. Another issue is some companies have special programs. You might issue a standard on things that would have been up to, for example, Table D on a substandard basis. If that is happening at your company, you might find out that the mortality on the 2001 CSO is not sufficient.

One of the drafts of this regulation actually required the actuary to be able to submit mortality data to the SOA. One of the concerns was the 2001 CSO mortality is actually only based on mortality from 21 companies. They are very good companies that are, in general, very big companies. It doesn’t necessarily represent the entire industry. The other problem is, even within the 21 companies, there was a tremendous variation in results. They figured out that the reserves set on the 2001 standard, even for the 21 companies, only covered 15 or 16 of them in terms of adequacy. So this is a concern of some states.

It is quite likely that some states, in reviewing the asset adequacy opinion or in reviewing reserves on the 2001 CSO, will ask actuaries for mortality data. Some states are making comments that they will probably do analysis of your own mortality data. There was a discussion at LHATF that it is very important for the SOA to get the data so better decisions can be made. Everybody can then feel comfortable as to whether or not the mortality table makes sense.

One of the issues that went back and forth over the last year or two was whether or not we should have specific tables for everything or should we just do formulas? For example, you had the basic tables. Couldn't you just come up with a formula for joint lives? They decided to go with specific formulas for everything. For example, there's 42 tables for age-nearest birthday, male/female, smoker/nonsmoker, age last birthday, joint, and unisex. They used the exact same percentages from the 1980 CSO for unisex. So there's a bunch of tables. Right now these tables are available from the Academy Website in the CSO report. Most of those are appendices to the report. I assume that, at one point, they will probably also be moved to the SOA mortality database. One of the interesting things is there is no separate Commissioner's Extended Term Table. The difference between extended term and regular mortality wasn't big enough to merit a different table.

One of a couple of issues that companies have to address is when should you adopt this as a company? Different states are obviously going to adopt it at different times. So it's a question of when do you want to put the resources in? Everybody is going to have to be re-filing products, and so on. My recommendation is to start early because you do know what the mortality tables are. Start early on the pricing/re-pricing process so you can have your products redesigned and approved in a relatively short period of time. Another issue that appears to have come up in some companies was it appears that some companies expected that the 2001 CSO Table could be used for current products, such as term products, and, in effect, be made retroactive. This came up at LHATF. The answer is definitely no. The 2001 table can only be used on a prospective basis.

A second issue, that actually will affect you guys this year-end, is that Actuarial Guideline AXXX has been adopted. Its official number is 38. Actuarial guidelines are only supposed to explain regulations. It does mean that it is a retroactive guideline. It does apply to current business. As I said, this is true of AXXX, or Actuarial Guideline 38, in virtually every case.

This guideline says we are really serious about Regulation XXX. Basically, if it looks like a level premium product and acts like a level premium product (even if you don't call it a level premium product), you're going to reserve for it as a level premium product. For example, the level premiums might not be guaranteed, but if it says that if the premiums are raised, we'll give you a bonus or refund, that effectively makes it a level premium. Then you have to reserve for it as a level premium product.

Some actuaries got very creative, and I admire their creativity. The regulators did not exactly admire the spirit of the regulation not being followed. They might have said, "We don't guarantee premiums, but we're not going to change them unless something really drastic happens, like Moody's bond index falls below 3%." Of course that was before the rates are starting to go through the floor, and that actually looks like a real guarantee nowadays. If you have something like that in your contract, you are required to treat it as a level premium product. On the other side, if you had dividend guarantees that effectively make it a level premium product, you have to reserve for it that way.

The other one that I thought was very creative was, for example, the issuing company originally didn't guarantee that it was level, but they had a second company that provided a guarantee. It was typically an affiliated company. You even have to treat that as a level premium product. Again, because it's retroactive that means it is applicable to this year-end, and it is applicable to everything that was issued since Regulation XXX became effective in your state.

The only slight exception to the retroactivity is universal life (UL) with shadow accounts or secondary guarantees. They are covered under XXX, and they have to be covered from the first date of the regulation. The only slight exception is, under good faith, some companies interpreted it as you could use a yearly renewable term (YRT) approach depending on your design. The regulators said, you know, it wasn't as clear-cut how you had to reserve for this. You had to treat it under XXX, but XXX specifically says, in the future, that you have to treat this product under the UL model regulation calculation, and it goes through the details. Basically, for this year-end, and in the future, this is one area where there is a specific change that has to be in effect just for the new business.

One issue that has come up is the use of mortality improvements. This actually will be discussed by LHATF in 2003. It is one of their projects that they signed up for in terms of what are companies assuming for mortality improvements. Under XXX, a number of companies actually are relying on their reinsurers and using their reinsurance to sign on their x factors. That's fine if you don't have your own business. As soon as you have credible experience, you should be using your own. One of the issues is does the reinsurer include mortality improvements in the factors? The answer is, they can include it up to the date of valuation, but they can go no further. It's actually up to the person signing or the appointed actuary to make sure that those are the types of x factors that you are using.

There is actually a separate issue as to whether or not mortality is improving and going to continue in the future. Some companies have actually experienced a bump-up in the last year or two. It does appear that the rate of mortality improvement is slowing, especially on females. If you're doing asset adequacy testing, realize that a lot of companies don't include any mortality improvement, but if you do include some mortality improvement, you probably should look carefully at what type of assumptions you're making, because it really does appear that projecting the past improvement to the future might be pretty liberal.

I've spent most of the time on 2001 CSO, which is, of course, the one affecting most of you. There are a number of other mortality tables that the SOA has released, and some of them are either in the process or have been adopted by LHATF. For example, the SOA has developed an updated credit insurance table. The SOA also released a new accidental death benefit table. The long-term disability tables update is available and went through LHATF. Again, look at the information that is available when you're doing your cash-flow testing. Use the appropriate table, for example, the latest annuity mortality table, if you're projecting payout annuities. Compare your actual to these tables to make sure that it is a reasonable table for your business.

On a somewhat different note, Regulation XYZ's purpose is to provide minimum nonforfeiture benefits standards for policies with secondary guarantees of some sort, such as UL with secondary guarantees or variable universal life with 20+ years of guarantees beyond age 70. This is a proposed regulation. It is not meant to replace the primary nonforfeiture benefit, and it would only be available if: the policy terminates, the no-lapse guarantee is still in force, and the benefit from this calculation produces a greater number than the basic guarantee. They originally had an effective date for next year, and obviously there were at least one or two states that were pretty interested in this.

However, this has received discussion at the last couple of LHATF meetings. One major thing was to change it from an actuarial guideline to a regulation, specifically because some states don't think they want to go that route. They want to make it optional. Somebody from the Hartford, at the last LHATF meeting, proposed an alternative regulation to Regulation XYZ. This is still a work-in-progress. It is still potentially something that might come out as an optional regulation in 2003. My guess is if it does, some states will adopt it, and some will not.

A proposed actuarial guideline is on GICs with bailouts. This issue had been around for a while. Then, California came up with an actuarial guideline that basically says you have to reserve for the GICs with bailouts with a Type C rate, which is the lowest type interest rate and the most conservative, unless the actuary can show that another type makes sense because the product is hedged. Therefore, it's meant for the actuary to review the GICs with puts such as credit rating downgrades. You have to look to see if it's hedged because otherwise the reserves would be more conservative. It's still being exposed for comments. At the September meeting, they did not make a final decision on it. My guess is this might have action in the December meeting, which means it probably would not be effective this year-end. It possibly would be effective next year-end.

One issue that was a potential hot issue when I was making up the original slides was a replacement for the Moody's corporate bond index, which is the basis for the valuation interest rates. The issue was Moody's is beginning to charge companies to get that rate, and so LHATF had a project to look at replacement for the Moody's corporate bond index in order to come up with the valuation interest rates. This index is also used for other things such as annuity, nonforfeiture, and guaranteed separate account products like New York Regulation 128 products. We were looking at a corporate bonding index, a Treasury index, the London Interbank Offered Rate (LIBOR) swap curve, or something else. During a conference call in August and at the September meeting, LHATF basically said it can live with the Moody's rate index as it is so this product jacket, at least at this point, is basically dead.

Another project that received a lot of talk at the September LHATF meeting was a nonforfeiture interest rate guarantee for annuities. Specifically, the ACLI made an effort to get the 3% minimum interest rate guarantee reduced. About 15 states either adopted it or had enough leeway in their laws to allow it, but a lot of the states that adopted a reduction in the minimum interest rate guarantee had a sunset of 2004. The reason it had the sunset was because of the expectation that somebody should look at it and come up with a more scientific answer to the problem. They thought that could be in place by 2004. The September meeting was interesting. First, there were several proposals on what should replace it, such as an indexed rate based on the five-year Treasuries or the LIBOR swap rate or maybe some low rate like one-and-a-half percent or one-and-a-half-percent graded into 3%.

These proposals were discussed for a short period of time at the September meeting, but an ACLI proposal to completely write the annuity nonforfeiture law actually took up most of the time, and it raised much bigger issues. The Academy response was a complete rewrite. The Academy working group response on nonforfeiture was, if you're doing a complete rewrite, it really should be tied into a major rewrite of nonforfeiture law. The bottom line was there was no specific progress, as far as I could tell, on the interest rate, and the discussion of the complete rewrite of nonforfeiture did get a lot more play.

LHATF is planning to rewrite the nonforfeiture law completely for life insurance and annuities and possibly health benefits within the same product. The reason they want to do this is the current law really doesn't work. You'd have a hard time squishing the new product in. On the other side, some of them really don't provide that much protection to the policyholders. The new proposals being discussed would loosen the requirements a lot but also strengthen the requirements on the disclosure side. The nonforfeiture law will have a lot more discussion. Nothing is going to happen within the next year, but it is something that people should probably start to pay attention to.

On the liquidity side, we see the NAIC Life Liquidity Risk Working Group. They finalized their report at the September meeting, which means it should be available on the NAIC Website. Once it's actually final, the NAIC takes the stuff down and makes you pay for it. This recommends the New York type approach, which is a series of questions on liquidity and liquidity management with potential follow-up if there are concerns or questions. For more details on this, you could also look at the Academy Life Risk Working Group report, which is available on the Academy Website.

It was a report finalized in September of 2000. I chaired that group, and I have no pride of authorship because there were 20 people who did an excellent job. All I did was cut and paste. It's actually an excellent report. It gives examples of liquidity plans. It gives examples of what companies should look at if they have liquidity questions. In addition, the NAIC report does recommend some changes to the annual statement—basically a general interrogatory as to what types of large sums of money can be moved under various circumstances.

On liquidity, I would expect New York to send out another circular letter this year to the companies writing New York. Other states have definitely expressed an interest in this. New York asks a series of follow-up questions, if they have any concerns about the original answers, and they have invited certain companies in for discussions. Other states have also, on a more informal basis, done the same with companies that they think might have some liquidity concerns.

Liquidity is just one form of risk. Risk management, as Colin and Dan McCarthy had mentioned at the general session, is an issue where actuaries can and should be involved. More states are asking questions on both liquidity and risk management. Dan McCarthy mentioned the peer reviews that New York is doing. I admit I'm one of the outside consultants that do come in and look at it, and it is not just a reserve review. It is a reserve and solvency review. New York also has a capital management team made up of investment bankers looking at the entire issue of not just statutory reserves but whether the company is relatively healthy. What are their problems?

Regulators have done this for years on companies where they thought they had concerns. They are the ones on the edge of insolvencies. They've always had the right to come in and go beyond, in effect, to reserve adequacy opinion and go into a general examination. On the NAIC side, it does appear a lot of the activity is at the financial examiner's level; however, as Colin mentioned, these are the type of issues that the rating agency wants to know about. For example, what is the guaranteed minimum death benefit (GMDB) risk? How are you actually testing for it?

I want to give a brief update on AOMR, as Tom mentioned. These revisions were adopted in 2001 by LHATF. In September, they were adopted by codification. There are a number of states that are working toward adopting these revisions for 2003. The major plus to the revisions is states can accept the state of domicile actuarial opinion. The major negative for some companies is you absolutely have to do a Section 8 opinion. The point is, because it became codification, there is a slight open issue as to whether states have adopted codification. What exactly does that mean? In most cases, because these are just revisions to the AOMR, states are saying, until we actually adopt it, which will probably be in 2003, there are a number of states that are looking at a 2003 date. You don't have to do anything for year-end 2002. However, it is still an open issue in several states.

For example, I'm not picking on them, but Massachusetts is apparently an open issue. Ohio is probably okay, but it might not be. In case you are not sure about what's going to happen, Kerry Krantz has volunteered to have a discussion forum regarding the AOMR on the SOA Website, so the information can be found there. Also, if any states do require it in 2002, as soon as we absolutely know that they will, the Academy alert system will go out. If you subscribe to the

Academy alerts, you know that we send out things that are of current interest. If any states require it in 2002, we'll send it out. My guess is they won't, but it is a possibility. Be aware that, because of the adoption of codification, there is still an open question. So, if you're in that situation, this is something you ought to follow very closely.

I want to end my presentation with a question. How many of you know that if you pass exams under the 2000 SOA syllabus, you are not qualified to sign a statutory annual statement opinion? This is really bad. There are about four people. It doesn't affect most of you in the audience, but it affects people working for you or whatever. Under the qualification standards of the American Academy of Actuaries, you have to be examined under certain basic topics such as the U.S. regulatory requirements in order to have the basic qualifications to sign an annual statement opinion.

Therefore, if you received your exams under the 2000 SOA syllabus, the only way that you can have the basic qualifications is to take the Academy Qualification Seminar. This year it's being offered November 12–15. However, because of the change in the syllabus, and if you're a brand new FSA, under this category, you still can't do anything. You actually have to come to this, too, in order to be able to sign anything. This is something you really should be aware of if you're in this category or if you have somebody working for you. Inform them that they have to go to the Qualification Seminar to get the basic qualifications. Also, the seminar will give you 15 hours of professional development credit. Actually, it's a good seminar if you're going into this field and haven't been a valuation actuary for a while or ever been one. It gives a good overview of valuation. Us old people don't have to take the exam at the end, but it is a great seminar.

MR. ALAN MARK EMMER: I have two questions for Donna. The first one is what is a joint life table? And the second one is, with the new 2001 CSO, are there new select factors for XXX?

MS. CLAIRE: The second one's easier. No, there are no new X factors. The theory is, in effect, the actuary is signing off on them. Technically, the 20% minimum makes no sense when you have updated factors, but the actuary has to do the job anyway. You don't have new X factors. You have the same XXX regulation, the same requirements in terms of it not decreasing and stuff, but it'll actually be easier because the tables more reflect update mortality. In effect, your actual factor will change, but the bottom line mortality that you're using probably will not have to change. As for the joint life factors, they went back and forth as to which table they're using. If you go to the Academy Website, you'll see exactly which ones they are. It was a question of how to set up a joint life table? There were several ways to do it, and so, by the end, I think they just picked one. I don't quite remember which one they picked at this point, but it is in the report.

MR. DAVID A. RICCI: This is for Tom. You said there was a dramatic change in LHATF's opinion as to MMMM. It had gone from a stochastic measurement with calibration points (being a left to right tail thing) to a retrospective accumulation of premiums. Can you comment on the appropriateness of the new tack as to the basic underlying liability?

MR. CAMPBELL: Yeah. What happens is you're holding an accumulation of the fees. As the account value drops, presumably you're at more risk, but at that time, you're getting less fees. So, the results end up being counterintuitive. Nobody thinks that accumulation of fees is the right answer. It's meant to be a placeholder. In fact, all the work that was done on the prospective method with the calibration points and all the methodologies are not going away. Many of those concepts are being retained in the C-3, Phase 2 methodology that is being used. We only expect to see the accumulation of fees for the next couple of year-ends, until a longer term approach can be put in place. The reason LHATF insisted on getting a stand-alone analysis done was because it didn't want to get into a situation where the accumulation of fees wasn't adequate. They wanted to make sure that actuaries were taking a closer look at that.

MS. CLAIRE: Tom said it's accumulation of fees, but the new actuarial guideline actually says the minimum reserve is subject to the asset adequacy opinion. In virtually every case, my guess is the asset adequacy opinion, which is basically testing on a stochastic basis, would be what most companies do. It will produce the higher number, and that is actually the reserve minimum. It is not just accumulation of fees.

MR. WILLIAM J. SCHREINER: I'd like to offer a clarification on the codification AOMR issue. This pertains to codification rules, except in the case where a state has provisions that run counter to the codification requirements. It seems to me that if a state has adopted and requires the prior form of the AOMR, until they adopt a new form, Section 7 opinions, as opposed to Section 8 opinions, would be required for those companies that are eligible for Section 7.

MS. CLAIRE: Yeah. Conceptually, I agree with you. We're not the regulators in the 50 states, and apparently some of the other states do have an open question as to which one, in effect, is more conservative and therefore applies. I conceptually agree with you, but I'm not going to guarantee that that's going to be the answer.

FROM THE FLOOR: We do most of our business overseas, and we've been wrestling with these GMDB things for at least five years or more. We've been doing a lot of work in conjunction with academics and investment financial analysts on this. My one question is when you come up with these retrospective methods, are there people on the working committee that represent these other functionalities or is it just actuaries?

MR. CAMPBELL: The Academy C-3 Phase 2 group, that's working on the longer term approach is made up of actuaries. They do use academics, and some of the members on the committee consult with economists and people with more of an investment background. I think the expertise is there. If there are any additional sources of information we should be getting to, you can certainly reach Bob Brown and make some suggestions. I think actuaries are uniquely qualified to deal with this as long as they are going back and looking at other disciplines and getting more information and more tools to deal with this.

FROM THE FLOOR: Fair enough. The basic question here was that in my work on this within the company, the only way I can succeed and have succeeded on this is by credibility. There's a lot of opposition sometimes within the companies to deal with this because the results are, as you might guess, sometimes highly significant and highly volatile. We just had a huge call the other day with our auditors. Some of them participated on the committee, and there were whole areas that were completely in question. They didn't know. I mean some very significant things were just left out there hanging because they don't know based on what has been written so far. So there are a lot of questions still out there.

MS. CLAIRE: Yeah. That's actually one reason why we're having the session and why you have the absolute latest slides. Tom had his computer, and a few of us were actually there revising it last week so that we could give you the absolute latest, which was what is exposed for comment. In effect, it's basically the greater of retrospective or prospective. The actuary has to sign off on it.

FROM THE FLOOR: That wasn't clear.

MS. CLAIRE: Yeah.

MR. CAMPBELL: The NAIC very recently did expose the comment. Those folks that do get the LHATF mailings are on the LHATF e-mail list. Hopefully, you will be on your computer when you get back to the office. We just actually had a meeting of the Life Practice Council of the Academy yesterday, and we're trying to get permission to post the current draft of Guideline MMMM on the Academy Website. It's a copywritten document, and so we need to get permission before we do it. As Donna had mentioned, if we do get permission, we will send out an Academy alert.

FROM THE FLOOR: Thank you. You've been very helpful.

MR. ARMAND M. DEPALO: Let's go back to the 1980 CSO. I have an opinion. I know you can't really answer it. It has to do with the definition of life insurance. It pertains to 26 states adopting the 2001 table. The meaning of 26 states adopting is going to be interesting. Did they formally adopt? Did they automatically adopt? Once that happens, the regulation the IRS has for 807 says that for a three-year period after it is adopted, you can use either table as appropriate for taxes. However, the question pertains to 807. There is the definition of insurance—either the net single premium test or the corridor test. That came about after the 1980 CSO was already adopted. So there wasn't a conflict of dual simultaneous tables. It can be designated by the IRS as the prevailing table once 26 states have adopted. It's not clear, and it has never been clear if the IRS will grant the same three-year extension that they do on reserves.

The ACLI's position is that either table should be okay, and we're going to ask the IRS to let it go to January 1, 2009, but we're not sure that the IRS will go along with that. The issue here pertains to the corridor test. The corridor test ends at 100, but the corridors aren't changing. The UL companies probably don't have a big issue. Maybe there are some little details after 100 that they've got to worry about. However, as for the traditional companies, if you don't get an extension immediately at the prevailing table date, anything on the 1980 CSO would, in effect, be noncompliant and considered to not be life insurance. I'm sure Bill might have some comments on this also. What's your opinion as to how much this will backlog all the filings if we find we get to the 26 states adopting in 2003? You've got three years from now. Everybody with a traditional product must be done with the policy filing by 2006. I just want to make sure people who have traditional products realize that this might be a concern.

MS. CLAIRE: Again, you have it exactly correct. The ACLI is probably the better organization to answer in terms of the taxes. Basically, that's why I sort of wanted to alert everybody that you definitely want to be able to at least design the products relatively soon so you do have something to go on no matter what. Three years from now, or even in 2009, in terms of the life cycle, which entails getting everything approved, is not that far away.

MR. RICCI: I just wanted to clarify my question because I wasn't aware of the appropriate reserve. I realize you have to hold the prospective reserve if it's different, but where is it shown? Is it shown in the asset adequacy report? What are the consequences for tax validity on the difference between the minimum reserve and the reserve you really have to hold? In many cases, the reserve you have to hold will be much larger than the retrospective accumulation.

MS. CLAIRE: Yeah. If you look at the wording, it's that higher number. If it's the prospective, it is the minimum standard. It's not an asset adequacy opinion standard. Exhibit 8 is now becoming Exhibit 5, but basically, it is like the old Exhibit 8(g) thing. This is really *the* reserve for this product. That's an issue for your tax attorney. But that is *the* minimum reserve. It is not, in effect, an extra reserve like an asset adequacy reserve. It is *the* minimum which is the one that has to be used.

MR. BRIAN TODD CORNISH: I have a question for Donna Claire concerning the 2001 CSO. In one of your slides, you commented that you have to feel comfortable with the resulting reserves that are sufficient in one case where they might not be a simplified guaranteed issue. I do valuation on an ordinary life block where virtually all my business is simplified and guaranteed issue. I wanted to get some kind of an idea of methods I can use to be looking at the reserving here as we're starting to price products to make sure that we hold adequate reserves. Of course, the answer could be to attend Session 10, but if you have any comments that would help right now, it would be appreciated.

MS. CLAIRE: Yeah. A quick answer to that is there's no real quick answer. There is one thing you really have to look at. Sometimes it's as simple as x percent. Some companies have found that different ages don't work. You really have to look at your own mortality. The 1980 CSO, in most cases, gives you enough, but sometimes, that's not enough, depending on what market you're really in. One state within LHATF actually abstained from accepting it, and this is one of the reasons. The regulation does not address what to do. It's questionable. One suggestion is, can we get enough data together? You know, is there enough similarity in these products that we can, in effect, get a different table? The advantage would be taxes, if this became a recognized table. Somebody actually brought that up to LHATF. It will probably be a discussion on the plate for 2003.

MR. CHARLES A. MARINO: I missed Tom's presentation, so I apologize in advance if you covered this. Regarding the new MMMM write-up, can you comment on the issue of explicit versus implicit charges for the GMIB? It's very clear, if you don't have an explicit charge, that the actuary has to use his judgment. What's not clear to me is if you have an explicit charge, is there any leeway in terms of actuarial judgment so that companies might use nominal explicit charges when they really have much higher mortality and expenses (M&Es)?

MR. CAMPBELL: There was some discussion that LHATF had on this issue, and they decided to use the wording that said, if you have explicit charges, that's what you use. I mean that's what it says. If you don't have an explicit charge, you have to impute one. It doesn't get into detail on how you impute one. It doesn't get into detail about whether you can use something different if you don't like your explicit charge. That comes into play when that accumulation is combined with the asset adequacy analysis. If your explicit charges don't give you an adequate reserve, then you're going to pick that up in the analysis. If your explicit charges give you too much of a reserve, then you're going to hold too much of a reserve under this standard.

Again, the whole idea is this is meant to be a placeholder. They wanted to get out of the business of writing this guideline and really look more towards getting something in place for this year-end and probably next year-end. They are spending more of their time and resources and the Academy's time and resources on solving the longer term issue.