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Session 144PD
Group Disability Large Case Underwriting

Track: Health Disability Income

Moderator: ANDRE C. BAILLARGEON
Panelists: ANDRE C. BAILLARGEON
ROBERT E. MEYER
ERIC POIRIER

Summary: The large-case group short-term disability (STD) and long-term disability (LTD) market is a significant, although arguably treacherous, source of growth for many group disability carriers. Effective case underwriting is paramount to the profitability of this business.

Panelists cover the following aspects of group STD and LTD underwriting:

- *Credibility*
- *Experience Rating*
- *Manual Rating*

MR. ANDRE C. BAILLARGEON: We're going to talk about group disability large case underwriting today. We've got Eric Poirier from UnumProvident and Bob Meyer from Standard as presenters, so they will be taking a piece of this as well.

I'm going to talk about the group disability environment and how it stands right now. Eric then is going to discuss the large case LTD market for a bit. Bob will follow that up with STD. They're going to take you through a case study that they made up, and then I'm going to step back up at the end and talk about some other large case issues that apply to both products.

I'm going to walk you through a few results of various surveys that JHA has conducted and some various other sources.

Note: The chart(s) referred to in the text can be found at the end of the manuscript.

Group disability sales growth over the past few years has been solid (Chart 1). I don't want to say it's been rapid growth, but it's been solid growth—STD in particular, but LTD as well. STD has been growing quite steadily. LTD has been a little bit more up and down, but definitely growing, as well. I guess one key source I'd like to talk about in terms of that growth is the large case business, particularly on STD.

There's also been, unfortunately, some churning of business in the industry, as seen in the in-force premium growth (Chart 2). You can see that is somewhat more moderate than the sales growth as companies continue to sell more business, but also lose more business. Again we see solid growth; I think this is actually the good-news piece of the puzzle right now.

In terms of market potential, what makes the large case market challenging and very competitive is that it's a significant source of potential lives, which ultimately is what translates to premium volume. When we talk large-case, we're basically talking about business that's got a significant experience rated component. So in STD, it's probably 250 lives and greater; for LTD, 1,000 lives and greater might be a proxy for what we're talking about.

There are a significant number of lives out there in a relatively small number of companies; it represents 49 percent of the lives of employees and 0.3 percent of employers (Table 1). So companies that are in this segment don't get that many opportunities to write these cases—we're all looking at basically the same group of cases, so it makes for an extremely competitive and difficult environment.

Table 1

The Group Disability Environment

Market Potential

Employees	1-9	10-99	100-499	500+	Total
Number of Employers	3,676,301	1,094,524	80,075	16,378	4,867,278
Percent of Total	75.5%	22.5%	1.6%	0.3%	100%
Number of Employees	12,227,755	27,425,264	15,411,390	53,053,322	108,117,731
Percent of Total	11.3%	25.4%	14.3%	49.1%	100%

Source: U.S. Census Bureau

In terms of client growth rate in both employers and employees, the employee growth generally has been outpacing the employer growth, and that's as the market has continued to be an insured market and continues to get larger and larger, particularly on the STD side (Table 2).

Table 2

The Group Disability Environment

LTD Client Growth Rate

	1997	1998	1999	2000
Employers	3.6%	5.8%	3.0%	4.0%
Employees	5.4%	3.6%	5.0%	8.0%

STD Client Growth Rate

	1997	1998	1999	2000
Employers	0.0%	3.6%	3.0%	7.0%
Employees	19.0%	8.0%	14.0%	17.0%

Source: U.S. Census Bureau

LTD always has had a presence in the large-case market, so it's not as pronounced. LTD, clearly is outpacing the employer growth, but in STD there is a significant move toward the larger cases going fully insured for STD.

I think the marketplace has done a great job of selling companies on early intervention on the claims side and packaging that business with one carrier and making that fully insured. The market is buying that story. First-time buyers, self-insured, and self-managed cases are moving over to the large-case arena.

Chart 3 represents group disability profit margin on a GAAP after-tax basis, and that's from the JHA Profit Study that was conducted in 2000. You can see STD, for the first time in the year 2000, actually was in a negative position for the industry. I believe something like 80 percent of the industry premium is represented in this study. LTD remains positive; but again, over the past few years, it's continuing to trend down, at least at a little bit more moderate pace.

I think a lot of us would look at those numbers and say, "That's probably not the level that the industry needs to be returning to." If the growth portion of the presentation was the good news, then the profit portion is the bad news. I don't want to lay it squarely in the lap of the large-case arena, but there's definitely a real struggle there to write and maintain a profitable business.

In terms of what we're seeing in 2001, a mid-year market survey conducted by JHA basically suggests that that trend is going to continue. In STD sales growth,

lives growth is clearly outpacing new-case growth, which is, in fact, actually negative for the first half of the year. That's reflected as well in the earned premium numbers.

So it looks like we're probably going to see another year in which STD profit margin certainly is not going to be where we want it to be and perhaps again not even in positive territory. LTD should be a little bit better. We're seeing a better premium per life, which is a number that we track. There appears to be a little bit of movement toward the larger case. At least in terms of those measures, I don't think that things look as bad. I hope we'll at least maintain the 2000 levels and perhaps see some improvement.

I guess the large-case market clearly has been an important source of growth, perhaps a little bit of a treacherous source of growth, but an important one nonetheless, particularly in STD. There's a lot of competitive pressure to write those cases and make those top-line growth goals for carriers of all sizes.

I think most companies at this point, or a lot of companies in the industry, are looking at writing some larger-case business to achieve those top-line growth goals. It has produced a considerable strain on profits in the past, and it looks like that trend is going to continue.

MR. ERIC POIRIER: LTD large case underwriting involves multiple issues, such as plan designs, claim services, enrollment strategies, and billing. But I'm going to focus on:

- experience rating (or how experience rating is used to set rates)
- experience rating components
- experience rating weaknesses
- subjectivity (there is a lot of that)
- use of credibility (in-force rate vs. manual rate)

LTD large case underwriting—Environment

We can define large cases loosely as groups of about 2,000 lives or more. Disability carriers are likely to have a large group underwriting unit, usually composed of their best underwriters.

LTD is like most other group insurance business—yearly term contract with rate guarantees of usually one to three years.

LTD is very competitive, meaning that it's a negotiated business. We spend a lot of time negotiating rates. Rates are set about three to six months before their effective date. During those three to six months, we negotiate with carriers and producers and employers and make financial arrangements for the next financial period. Pricing is mostly based, of course, on past experience, which is common to most group business.

The risk is quite volatile. We talk about a frequency of 4 to 4.5 claims per 1,000 per year, so it's a fairly low-frequency product. Most of the complexity and volatility comes from the severity, which can be described as an annuity paid to claimants, as long as they remain disabled. That annuity is subject to a lot of volatility.

With large groups, we also have more complex plan designs in terms of products such as voluntary products or core buy-up. We also have more complex administration. People might request some special billing or some special enrollment strategies. These trigger additional cost and complexity.
Regarding data quality, it's hard to get all the technical information you would wish to have to make an appropriate proposal. There's a lot of guessing sometimes—this is part of our competitive business world.

Regarding industry-wide data, I would think that by comparison to other lines of business, disability data are a little weak. We have a fairly recent termination table available (probability of going back to work or dying while on claims). However, this has been rejected as a valuation table by the industry; yet it wasn't that bad. It's still decent information that can be used, if you are careful, for pricing purposes. But the incidence piece or frequency of claims, which is obviously a critical component, the industry has to confess that it has done nothing. The last time we did something was in 1987, and it's really outdated at this time. We have a big gap there compared to other lines of business.

Working Examples of How It Works
This is a quick example using a fictitious case. The case was sold in January 1987. It's a 5000-life case with rate guaranteed for two years. We're looking to find a new rate for January 1999. The initial rate was quite aggressive—20 percent less than our manual rate ($0.51 versus $0.64). It's something that happens; it's not a foolish example here. The in-force rate was $0.58 , so we quoted it about 15 percent below the in-force rate. Again, that's fairly aggressive.

The EP is three months. Again, we need some time to set the rate and negotiate. The employer would like to have the information by October 1. That leads me to work on data as of September 1998. Claims incurred in June, July and August 1998 do not provide much information. These claims have not yet satisfied their elimination period as of the valuation date. So we might as well not include the premiums. That leaves me with a very short experience period of 17 months going from January 1997, the inception date of the plan, up to May 1998.

We'll be negotiating sometimes in October and November on experience ending May 31. So the employer, if not familiar with the restrictions of disability business, may think, "Why don't you use data as of now?" The reasons are that the elimination period and the time for negotiation create this restriction.

Financial Results. Now let's look at the financial results for this case (Table 3). The information we have is as of September 1, 1998. This is a very traditional view.

It's classical to use an incurred approach, so these are the claims incurred during the study period.

Table 3

GROUP LTD LARGE CASE UNDERWRITING -
1st Renewal Data

ClientCo's	1/97-12/97	1/98-5/98	Total
Premiums	879,000	381,000	1,260,000
Paid Claims	303,408	28,640	332,048
Open Claim Resv.	910,224	358,000	1,268,224
IBNR	35,160	121,920	157,080
Interest Credit	77,911	15,175	93,086
Inc. Claims	1,170,881	493,385	1,664,266
LR	133%	129%	132%
TLR:	80%	80%	80%
A/E	*167%*	*162%*	*165%*
Nbr of Inc Claims	28	8	36
Expct. Claims	21.4	5.6	27.0
A to E incid:	*131%*	*142%*	*133%*

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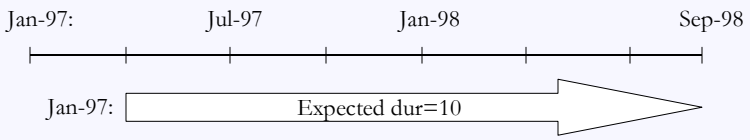
Let's conclude immediately that we have $1.6 million of incurred claims and $1.2 of premiums—things obviously didn't go too well. One thing we know is that there will be a rate change for which we'll have to negotiate. It's not going to be easy. We'll have to defend our position. We'll have to explain why we're making a rate change; but furthermore, we'll have to decide what kind of rate change we feel is appropriate for this case.

Let's look at some of the components, we have the premiums, the paid claims and the open claim reserves (Table 4). I want to highlight here that the paid claims are pretty small. The paid claims are the only hard facts. This is factual information. It's been paid. It's clear, unfortunately, that represents only 20 percent of my incurred claims. Eighty percent of my incurred claims are based on the open claim reserves. But we've seen that, as an industry, we can't agree on what is a proper standard recovery table to use to set claim reserves. This means that claim reserves are somewhat subjective.

Table 4

GROUP LTD LARGE CASE UNDERWRITING -
1st Renewal Data

ClientCo's	1/97-12/97	1/98-5/98	Total
Premiums	879,000	381,000	1,260,000
Paid Claims	303,408	28,640	332,048
Open Claim Resv.	910,224	358,000	1,268,224



Expected benefit duration for the study period: 7 months

Actual average benefit duration within the period: 6.3 months

A/E benefit duration: 90%

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However, there are some things we can learn about the paid claims and the open claim reserves. One thing we can try to do is to look at truncated benefit duration —basically try to explain the paid components. The paid claims basically are equal to a number of monthly payments we've made. Now if we take out the benefit amounts, we can summarize paid claims into the number of checks we wrote or, a better definition, the number of months of disability that were indemnified. We can find expectations for that measure.

For example, if a claim is incurred in January 1997, claim payments can start in April 1997 and go, at worse, until August 31, 1998—a span of 17 months. For expectations, I use some monthly recovery assumptions. For my January 1997 claims, I expect about 10 months of benefits. Of course, I expect a little less than that from February claims and so on for the entire study period.

On this specific case, we expected to make 7.0 payments per claim. We got 6.3, so we know we did well. We can also find out if terminations were somewhat within the expectations by doing a more traditional actual/expected (A/E) termination study.

A third statistic that could be interesting is, how many open claims do I have at the end of the study period? If I expected 10 and I have 15, this is impacting my financial experience quite a bit. Using termination assumptions, we can explain paid claims and open claims reserves. This can help to defend our position case when we set renewal conditions.

The truncated benefit duration really highlights the fact that these represent the benefits we expected to pay within the study period. It doesn't mean that we expect claims to last 7 months. That's really not what it means (claims last about 40 months). Within the study period, we expected to make about seven payments. That's what it means.

Not only do we have low paid claims and huge open claim reserves, we also need to use incurred but not reported (IBNRs) (Table 5). Even by excluding June, July, and August 1998 from my study, I still have a need for IBNR, and that is another very subjective issue. Disability does not only have a slow reporting pattern, like I wrote in the table above, but it also has a slow "approval" pattern. It takes a long time for disability carriers to get all the information (such as APS) needed to approve a claim. As of September 1, 1998, about 85 percent of the claims incurred in January are known and paid. I may know a little about some of the remaining 15 percent but I'm not sure they will translate into actual claims. Finally, a portion of that 15 percent represents claims for which I do not know anything about yet—i.e. the true IBNR. This is another limitation of disability business.

Table 5

GROUP LTD LARGE CASE UNDERWRITING -
1st Renewal Data

ClientCo's	1/97-12/97	1/98-5/98	Total
Premiums	879,000	381,000	1,260,000
Paid Claims	[illegible]	28,640	332,048
Open Claim Resv.	[illegible]	358,000	1,268,224
IBNR	35,160	121,920	157,080

40% of net premiums

Slow reporting pattern:

-less than 85% of 01/98 claims are paid as of 9/98

-less than 70% of 03/98 claims are paid as of 9/98

-about 15% of 05/98 claims are paid as of 9/98

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Incidence Analysis

Now we're finally going to look at the incidence analysis (bottom of Table 3). Often, incidence studies are done internally; they're not shown to producers or employers. They're getting popular because incidence is less volatile and more tangible. Incidence studies are easy to explain. They focus on the number of claims. We don't care about benefits. We don't care about severity at all.

The bad draw here is that most carriers will not have a solid incidence basis to rely on. As I mentioned earlier, the industry has nothing, so that's a pretty important failure here. Even if you have some incidence data, it's difficult to obtain all census data, plans history and correct exposure for every month of the study period to calculate proper expectations. Even if you have all that, you will be stuck with the following problem when you'll deal with the client:

The rate is $0.50 per $100 of covered payroll. So you agree with the employer that the disability cost will be 0.5 percent of his payroll. He doesn't agree that it means 20 claims per year. Yet at the end of the year, you come up with your renewal and say, "You've got 25 claims; we thought you would have 20."

We don't sell a frequency rate. Incidence measures can be easy and convenient but they are just not part of the contract. If the industry wants to go further with incidence measures, it will have to think about a way to include them within the contract. If that could happen, it would definitely simplify the renewal process and make negotiations easier.

For our sample case, we expected 27 claims and got 36 for an actual to expected ratio of 133 percent. Assuming a normal distribution, we can find that the probability of having claims in excess of 133 percent of expected claims is 6 percent. We'll perform a similar analysis on claim costs.

Let's define claim costs as expected number of claims times benefit amount, times expected benefit duration within the study period times expected reserve factor at the end of the study period. We can calculate the variance of such claim costs definition using the method suggested by Roy Goldman in his 1988 article, which is still the best article about disability. This shows you again that we're not very active in developing our line of business in terms of methodology.

For our example, the variance is equal to 26 percent of the mean. The loss ratio is 165 percent. The group was, however, heavily discounted. At manual premium level, the loss ratio is 132 percent. The probability of having a loss ratio greater than 132 percent is 13 percent. This demonstrates that the claim cost variable is more volatile than the incidence variable.

I am using a very short study period. If I had been using a longer study period, the probability of having an actual to expected incidence greater than 133 percent would go down. On the other hand, the probability of having a loss ratio greater than 132 percent would go up; so the spread would increase. Here, my example is not necessarily appropriate for a standard study period. Normally a study period would cover about 36 months. Over 36 months, it's clear that the incidence volatility would have been much smaller than the claim cost volatility.

Anyway, my main point is that incidence is an important component. It's not used enough within the industry. I believe it has some potential in terms of simplifying the way we underwrite cases.

Renewal Analysis

We already know that incidence was higher than expected and that claim duration was not an issue. Can we explain why incidence was higher? We have to look at external factors—mostly things that are not likely to occur again such as a merger or acquisition. We might want to look at claims by cause of disability and make sure there are not any unusual trends. Finally, we have to question why we sold the case 20 percent below manual. This, unfortunately, is a common scenario. Previous experience may have been good and that could justify a decrease from manual. Also, there's often this belief that the prior carrier is not as competent as we are in terms of claim management and that we'll do better, so another discount can be applied. You have to be careful about that.

To set the renewal rate, we're using a very traditional formula (Table 6). We use the loss ratio, in-force rate of $0.51 and the credibility factor (Z). We take one minus credibility and multiply it by the manual rate or the in-force rate. We can argue about which one to use forever. This is a very subjective formula. We can argue a long time about what the correct credibility factor is for this case—we see this in our daily operations.

Table 6

GROUP LTD LARGE CASE UNDERWRITING -
Renewal Analysis

•Traditional formula: Case rate (or rate after credibility)=

1.65 x 0.51 x Z + (1-Z) x (0.64 or 0.51 ???)

•Use Inforce rate if...

	Inforce/Manual	
Case Size	> than	< than
500 to 999	1.40	0.40
1000 to 1999	1.30	0.50
2000 to 2999	1.20	0.60
3000 to 4999	1.10	0.70
5000 +	1.00	0.80

•In theory: Z around 25%; In practice: Z around 50%

-due to competitive market environment

-variance of "hypothetical mean" is large

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Is there a way to do it better? Again, if we were to use incidence only, we might not need to argue so much about credibility.

We have some hesitation with regard to the non credible portion—should we apply the in-force rate, the manual rate, or anything in between? One thing you might want to consider is to use the in-force rate if it's a lot higher than your manual rate. If, in a competitive market, a client accepts a rate higher than your manual rate, then the in-force rate is likely to be a better estimate of the true cost.

If the in-force rate is much lower than your manual rate, you might want to consider that the in-force rate somewhat carries the history of the case's past experience. The market is competitive, but not totally crazy. So if your manual rate is significantly higher, then maybe your rate is off. These are things to consider when deciding to use in-force rate or manual rate.

In practice, credibility factors are a lot higher than they should be. I believe this is due to our competitive disability market. In such a market, it's impossible to increase a case by more than what its actual loss ratio suggests. Basically, you can only increase policies that have losses. This creates a need to have larger credibility factors.

Another reason for stronger credibility factors is based on perception. We like to think that the variance of hypothetical mean is large. We tend to believe that, within a risk pool, there's a sub-pool of bad cases, a sub-pool of not-so-bad cases, another sub-pool of fairly decent cases and another sub-pool of good cases. This can make us conclude that maybe that case doesn't belong to the average of the averages, but more to this sub-pool of unique employers that show tremendous care for their employees so they show better experience." It's something that is, again, very subjective and based on perception; but it's part of our daily operations.

Unwritten Rules

Rule No. 1. Even if a case has great experience, it's not going to be easy to retain it. The client will want a rate reduction. Because of our inability to fully pass rate increases on poor cases, we're not too willing to give rate reductions.

Rule No. 2. Cases that need rate increases are likely to go to market. What I mean here is that the tolerance level is pretty low in the large-case market.

Rule No. 3. The larger the case, the lower the tolerance level. At 5,000 life, we're going to get very lucky if we can pass a rate increase of 20 percent or 25 percent. It's going to be hard to keep the case.

Rule No. 4. If a case is widely bid—six carriers can be defined as "widely" here—it's going to be tough to retain the case. That's how the market is.

Rule No. 5. If the medical insurance is present, it can drive decisions on ancillary lines. I did not think it was much of an issue nowadays, but underwriting told me it is still an issue and that they're seeing situations in which we're losing cases because of the medical line of business.

Rule No. 6. Trending is important. Three years of experience on a 1,700 life case will be perceived as more valuable than one year of experience on a 5000 life case. Now, statistically it's not so true. But in practice, you may be able to use trends. If the case's experience is deteriorating over the years it's going to be a lot easier to sell a rate increase. If it's the opposite, it's going to be really tough.

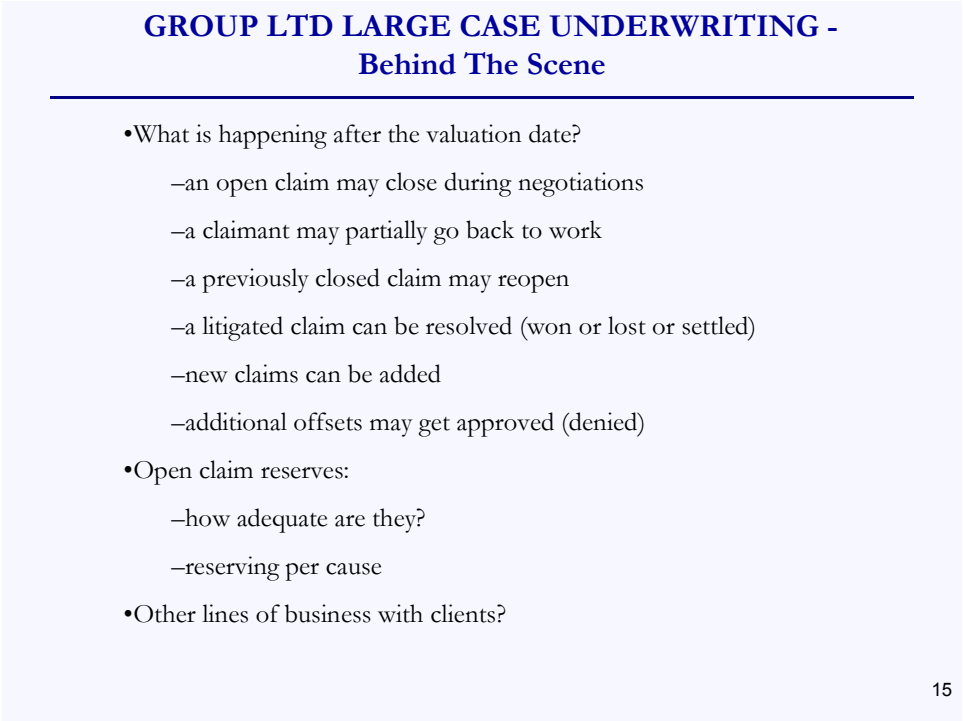
Rule No. 7. As I mentioned earlier, it is impossible to increase a case by more than what its loss ratio suggests.

Rule No. 8. First renewal is limited by relationship issues. You always have to aim at a long relationship with large cases. Starting with a 20 percent rate increase may not be a good way to develop a long-term relationship.

Behind the Scenes

During the negotiation period, the clock doesn't stop. You can take a peek at what's going on with the open claims (Table 7). It might help you to make up your mind and be more flexible.

Table 7



Even with large cases, you're not going to have that many open claims. You have to make sure that each of those individual claim reserves are as adequate as they can be. Using reserving by cause of disability becomes very important.

Let's summarize the renewal analysis. The main objective is to be able to explain the case's financial results. Is experience explained by incidence? Is it explained by claim duration? Identify abnormal situations. Apply the traditional experience rating formula. Consider all the intangible issues—trends, relationships, and all those things. Take a look at the experience after the valuation date to make sure you have the most updated picture during the negotiation process. The main purpose is to put discipline into a too-often subjective and undisciplined process.

Renewal Conditions

On our sample case, we ended up being able to do a rate increase of 20 percent (from $0.51 to $0.61). We applied the in-force rate to the non credible portion of the experience formula. We reduced the credibility to 30 percent: 1.65 x $0.51 x 30% + (1-30%) x $0.51 = $0.61.

The plan design was thereafter changed as the elimination period was increased from 90 days to 180 days. Basically we're shifting cost from LTD to STD. This is going to facilitate experience rating. The employer obviously carries more risk directly with STD since experience rating on STD is usually more straightforward.

We also considered other issues such as the client's financial strength and our relationship with the producer. Looking at the experience during the negotiation, we also found out that two claims had closed.

Presentation

Now, we have to show our renewal offer to our client. We have to be ready to defend our position. We need to show statistics and benchmarks. We need to make sure that our sales area understands those statistics. If improperly interpreted, these statistics may not have the expected impact. For example, if you compare some of your client's statistics with those of other cases within the same segment, you don't want the client to understand that he's paying 25 percent more than everybody else. It would defeat your purpose of showing he has a higher rate because of his experience. You have to make sure that the sales area understands what your statistics mean.

We can show statistics that are not necessarily relevant to the financial experience. For example, we can show the employer their plan design and compare it to the plan designs of our portfolio. This can be used to let the employer know if its plan is fairly standard for its industry. The other thing you might want to show is a distribution of claims by different categories such as ages or causes of disability.

Summary

It's a very competitive market. For example, a few weeks ago we were asked to add some performance guarantee provisions to a contract. It was something like: "If you don't resolve these claim issues within X days, then you pay us back 0.5 percent of premiums." That's pretty tough. The total of all the penalties—such as booklets not printed on time—could cost as much as 2 percent of premiums. So it could be hefty.

Renewal actions are limited. Initial mistakes are very hard to correct. Never, ever make a big pricing mistake on a voluntary LTD from the start. It never ends. It eventually leads to a situation in which the employer has no choice but to shop around because you're increasing the rate. The employer is not paying anything. The only thing it has to offer to its employees is at least shopping for a cheaper carrier. Furthermore, increasing rates trigger decreasing enrollment, and you get in to an anti-selection spiral.

The data are subject to interpretation. We talked about credibility factors, reserves, and manual rates. All these things are not going to be easy to put into your formula. Everybody will argue about them. So there's a need to convince yourself first that you have a good picture of the situation and what you need.

There is a need have a managed renewal program. It defines renewal targets for the whole portfolio. These help you to set your goals on large cases.

Incidence analysis, although tricky because of the lack of data, can be very helpful. One day it might become a valuable alternative to the traditional method.

Track experience periodically. If you see a large case with deteriorating experience, you might want to talk it over with the client. Just show that you care about the experience and that you won't hold on to the information until few a months before the renewal effective date and come up with a surprise rate increase of 32 percent. If you check experience periodically and communicate the results, it might ease the process a little bit.

In addition, you can use multiple statistics and consider less traditional underwriting such as using Dun and Bradstreet (D&B) information. For example, they have statistics with interesting names such as "financial stress indicator" and "paydex". Some indexes measure credit risk—how late they pay bills and issues like that. We think there could be a relationship with experience, at least in terms of financial strength of the company.

Using investment skills could be critical here, so pricing actuaries may not know as much as people involved in investment areas who are using all sorts of indexes in the market. So talk to these people; they can give you good ideas.

MR. ROBERT E. MEYER: A couple of weeks ago at my company, one of the large-case underwriters was training some sales reps. He held up a $10 dollar bill. He said, "I'm going to have an auction. I want to auction off this $10 dollar bill, so how much are you willing to pay for it?" Somebody paid $1.50 for it (laughter). But then to make administration problems, he gave the guy the $10 dollar bill, and the guy thought he was keeping the $10, so he ended up giving him $1.50 for it, but the administration in the home office was poor, so he got it back.

Anyway, the point is, in STD things are fairly credible. Why would you go out there, look at a case, and bid, in essence, a lot more than $10 dollars for $10 dollars? I thought it was a good deal, so I thought I'd just bring it up as an idea of what we're talking about here.

Environment
Let's talk about the environment. We're talking about cases of 2000 lives, generally one- to two-year rate guarantees (we're getting asked for three now sometimes. We don't like them very well, but we're getting asked).

The market is very competitive—more competitive, I think, than it has been in the past several years. I'm sure that has to do with writing LTD with STD in a lot of cases. The insurance companies, as Andy pointed out, have low profits or no profits. So you have to be careful there. The market is competitive; that's what the result is.

The risk should be less volatile than LTD, but I don't know sometimes—the way we rate it, we seem to think it's more volatile. Plan design generally is less complex, but it's increasing in complexity, because a lot of people want their STD and LTD matched, so it's all consolidated.

Pricing is weighted heavily on past experience. A lot of these cases would be considered fully credible by most companies. Eric talked about how little industry-wide data we have in LTD. The last thing I saw on STD was done in 1947 to '49; it didn't include females, and it didn't include maternity.

So if you're going to work to try to find manual rates from that, I think you've got a hard task, because you're not going to get much from it.

The Scenario
This is not recommended underwriting. This is just something to get discussion going.

This is the same clientele, but we're a different company, Fictitious Life, with the same 5,000 lives and the same initial-year rate guarantee of two years. We went 10 percent below to get the group away from Eric's company, and it's a 1-8-90th day of disability to dovetail with the LTD.

First Renewal Data

My data is in Table 7. At one point in time, Eric actually had data that went out five years, and my presentation will go out five years. It turned out the second year was a lot better than it looked, based on Eric's first step. Eric made up the case, so I just got a copy of his anyway.

Table 7

GROUP STD LARGE CASE UNDERWRITING
The Scenario

•ClientCo insured with Fictitious Life since 1/97

•5000 lives covered

•Initial Rate Guarantee: 2 years

•Initial Rate: 10% below manual (0.28 vs 0.31)

•Reduced rate to beat LifeCo

•Plan: 1-8-90th day of disability

•Renewal Due Date: 10/1/98

•Experience Period: 1/1/97 to 8/31/98

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In my case, by the time you get to mine, the STD looks a lot better in the second year. But since Clientco asked them to increase the elimination period and wanted to keep costs down, they asked us to change our plan. So we changed from a 1-8-90th day to a 15-15-180th day to keep the initial manual rates fairly similar. So that's the experience.

In the first renewal, both the STD and LTD experience are unfavorable. What did the underwriter do? Well he said, "Gee, if you look back, the incidence was fairly near expected, even though the rates were high. That isn't too bad. I don't know if I got longer durations or higher average claims or what. The trend appears to be favorable." I've seen underwriters take two years and say, "Ah, here's trend, one good year, one bad year."

Group has remained stable in size. The manual rate is up a penny from 31 to 32. The experience rate is 34 for the current plan. Credibility is 100 percent. The current rate is 10 percent less than the manual. So the one thing he's worried about is, are they going to let their LTD carrier quote on the STD?

So what does he do? He offers a rate of 33, which is a 14 percent rate increase, based on the favorable experience when accounting for the plan changes, because it looks like the trend may be favorable. When he talks to his rep, he says, "Well gee, experience said I should go up 21; I only went up 14. So you're getting a deal." But it's been favorable in the second year, so that's a positive.

Group is easy to work with; that's a positive, and this is a chance for us to get our actual rate closer to our expected rate. It's only $.01 higher than the manual rate. and he has found out since then that they're not looking to have the other carrier quote on it, so he doesn't have the competitive problems he thought he was going to.

The real question is, how did the underwriter do? Did he miss something? Is he too aggressive? Not aggressive enough? Did he make the right decision? We'll get to find out later. But as Eric said, they want to see something at renewal, so you give them some claims data. You should show them your company's overall data and the industry data you have for them.

Sometimes we have had large cases ask us for that. One time a large STD case asked, and we gave them industry data, and it basically was their data. That's all we had and it didn't help much.

Credibility

We talked a little before about credibility, and Eric talked about practical credibility versus theoretical credibility, so they laid it on me to try to do some actual theoretical credibility here.

I got a lot of help from the guys in the office. One of them just took the credibility exam, and the other one is studying for it. So I'm not the expert on this. I don't remember this stuff at all.

We wanted a 90 percent probability of being within 5 percent of the mean and that the frequency and severity are independent.

The first plan design—the 1-8-13, I'm going to call it—said that we expect the incidence to be about 55 per 1000. Frequency of this assumption is a binomial with a probability of 0.055 and a severity distribution with the coefficient of variation of 1.42.

For the other plan, incidence of 48 per 1,000, frequency assumption is binomial with probability of 0.048, and severity distribution with a coefficient of variation of 1.16. We also did it for the LTD , and based on the assumptions there it's the 90 percent probability of being within five percent of the mean. Severity and frequency are independent.

The 90–day elimination period, has incidence of 4.5; the frequency is .0045, and the coefficient variation is 1.4. Incidence for the 180 is three, with frequency of .003 and coefficient of variation of 1.05. These coefficients of variation that we got for these different plans, the guys just picked out some random claims, ran one, and got them. They're not necessarily right or anything, but they gave us something to use in the formula.

The results of this were that at the expected claims, you need about 50,000 lives for 100 percent credibility on STD and somewhat more, 700,000 lives, for 100 percent credibility on LTD. Based on the information that Eric had in his presentation and the information that my incidence offers, and the credibility according to this final offer, the STD would approach 50 percent; for the LTD, it would be around 10 percent. Now Eric had talked about a different formula coming up with 25 percent. It depends on your formula. Just so you know, that is actually right—these guys assured me that the mean and the variance on the LTD are almost exactly the same and that it is because of the binomial distribution and the small mean.

Theoretical Credibility

Why don't we use theoretical credibility? Why is the practical credibility used by the underwriters often different than theoretical? I guess the first question is, what's the correct credibility formula? Is it the one I just did? Is it Bayesian? I don't know. At least at our office, we don't have a good idea of which the right one is.

Then do claims cluster around the mean, or do groups cluster around the mean, or do both claims and groups cluster around the mean? Is it different for some groups than others? All of those things could make it tough to actually get what you think is the right credibility. Also, I think the competitive marketplace provides pressure for a higher credibility. Eric was talking about how one of the ways you can get a rate increase is to give more credibility; and for the most part, whoever you're dealing with doesn't understand credibility anyway, so that's another issue.

Also, external forces may reduce the reasonability of your assumptions. The job prospects in an industry are poor or good. There's high inflation, low inflation, high unemployment, low unemployment; all kinds of things like that could affect your incidence and duration.

You also have the working conditions—do people like working for the employer or don't they? Do they have a good rehab program? Do they not want him back? Some companies say, "They're off, I don't want to see them again." Others say, "Geez, We want them back to work as soon as possible."

So with all of that stuff, I guess I'm getting down to the subjectivity involved in disability claims. It makes it more difficult to get the correct theoretical credibility.

I also think the presence of LTD may change your duration. I guess we talk about it as a starvation factor—somebody's got benefits out at the end of that benefit period. They may be more likely to stay on claim, then,. If they're going to starve, because there's no money out there, they might be more apt to go back to work.

In addition, I wouldn't even want to attempt to explain theoretical credibility to our sales force. That would be kind of a lost cause. If you were trying to explain how you came up with your credibility, I don't think they'd understand it, and therefore, they'd probably dismiss it somewhat.

One last thing is, since the credibility really is based on the claims, most of the time you don't get claims. If you're renewing, you have claims; but if you're proposing, you don't have claims. If you're trying to give some credibility to the experience, you've got to find something else. You often get lives, but you don't get number of claims, and you've got to find something to base your credibility on.

I carried my STD on a little farther than Eric carried his LTD. I'm just going to go over the second and third renewals briefly, so I can get from my last renewal, which is where I have all my stuff.

In the second renewal, 1998 was favorable, 1999 was bad. Experience indicates a 15 percent rate increase is appropriate. The underwriters talked to nine percent for a 0.36 rate. I was told in no uncertain terms by our underwriters that no, no, no, you won't be talked down there. Just get what you need—I don't know. But not in this company, they didn't.

Third renewal experience improved some in the year 2000. The experience rate since '97, which was before their plan change, was 0.36, which is the current rate. Experience rate since the plan change is 0.41, but despite that, the underwriter decided to go with 36. Maybe he has sales goals he has to meet and he's having a tough time this year.

This brings up a question: Is the age of the experience or the amount of the experience more valid? In other words, you've got a shorter amount of experience since the plan change—is that more valid than the total experience, which adds more experience but goes back to a different plan? Those are things that they would have to consider.

The Experience
So now that the case is going out to bid, here's the experience on the group.

The one thing that causes the underwriter all kinds of problems is that second year. The actual-to-expected claims are the only ones that are below one, and they're severely below one. Based on what I know about deals, they'd be sitting there pointing at that year saying, "But the experience says ..." or "This is in the experience" or something like that.

Anyway, they decide to go out to bid, and the company puts some new specs on our group. They want one carrier for STD and LTD, to make the claims process easier for the employees—they want to save money from integrated claims management. They want a three-year rate guarantee on both coverages. Claims administration issues are telephonic claims submission, a dedicated 800-telephone line, and a dedicated claim unit. For the administrative issues, they want quarterly financial reports, and they want the insurance company to handle eligibility.

What are the underwriter and actuarial considerations about this? My first one is, "Is consolidation of STD and LTD less expensive for their company?" For the first year that you had an unmanaged STD block; I think it's pretty easy to say, "Yes, you can manage the STD and save them some money." Beyond the first year, I don't know that you'd save them much. If you've got two good disability carriers handling the claims, it's hard to believe that one's going to provide better claims management than the other.

Then we get back to the old starvation factor. Is it better to not have any STD in front of your LTD? That's a great rehab program, I think—not having any money as compared to trying to manage the claims. In addition, your claims expenses become higher for STD because you're doing a lot more stuff to STD claims than you might have done in the past when you had STD only.

Does the three-year rate guarantee make sense for STD? In case you can't tell, I'm asking the questions more than I'm giving the answers. I don't know the answers to all of these, but I think they're all things that need to be considered. Do your expense formulas cover all the extra admin costs that they want, and is the underwriter going to remember to adjust for that if they don't?

Are the features actually going to be more expensive when you put them all together than they would be independently, or do you actually get some savings by doing them all together?

Is ASO a viable option? Maybe the client wants to have input on the claims decisions, and maybe a better thing for you to do is to go ASO.

Are you willing to get aggressive on STD to get the package? I know my answer to this one would be no, but that doesn't mean it would be the answer for everybody.

Is this a good prospect for acquisition pricing? Are they just looking for low rates? Do they have some history of stability with their carrier? Do they go out to bid frequently? What's the relationship with the consultant or broker? Is it possible that you actually have worse experience with good brokers because everybody knows they're good brokers? The underwriter knows they're good brokers. They recognize them. We've done a lot of business with them. They give them breaks. Maybe you've given them a lot of breaks. Maybe their experience actually isn't as good as somebody else's.

What's the financial outlook? Do a little financial underwriting. Are there any alternate plan designs and options?

I think the current market for large STD cases is very competitive, much more so than it was just a few years ago. There are a lot more of the cases, for one thing. Credibility is usually higher than theoretical. Case rates are determined largely by experience if it's available in the large market. It's nice to have the manual rate, however, as a basis for comparison to see if it's really running where you expect it to.

Are long rate guarantees ever appropriate for STD? I personally don't think so, but somebody else might.

Visibility of STD seems to be increasing. There's a lot more consolidated disability. There's a lot more interest in STD and, based on Andy's presentation, the growth is a lot faster than LTD. I also think that you need to monitor the results of consolidated disability carefully, because we have some indications that all the savings that people had thought might be there in the beginning aren't really there.

MR. BAILLARGEON: How many people work in the underwriting department? Does anybody work in the underwriting department of their company?

How many people work at least closely with underwriters on a case by case basis on occasion? Good show of hands.

One thing about the example that was shown today, and it's a very good example, is that there's a lot of good information. If anybody's seen some of the RFPs that come in, a lot of times the information is not that good. There are a lot of things going on. There have been plan changes. Underwriters are trying to interpret the information they have. They've got soft information. They're looking on the Internet to try to find out what's going on with this company. There are rumors of a merger. They've just been through a merger. They've just been through an acquisition or they've just been through a spinoff—it seems like there's always something going on.

Then to boot, they've got to get the quote out by the end of the day. So it's a tough environment. The result is that on any given case, rates can be all over the place.

In the pricing study we give them a case, and, similar to this, we give them a case with complete information. In fact, it probably is almost unrealistically complete information, and yet there's still a considerable amount of variance in even things like calculating the paid claims. We give them some disability dates and some benefit amounts. Just estimating paid claims creates a great deal of variance. You look at the manual rates varying from $0.17 to $0.45, experience rates from $0.25 to $0.62. There's a lot of range of what happens on any given case in the market.

Who's right? Which of those rates is right? Which of those rates is going to get the case? Will it be profitable? Will it persist at renewal? Will it ever be profitable? Those are a lot of questions that, when you look at these numbers, you have to ask, "What's really going to happen on this case?"

Underwriters don't want to be chasing the rates. They want to be coming to a good decision and expecting some of those cases to sell. I did a session where we had about 20 underwriters from a bunch of different companies, and we broke them up into three groups. We gave them each a case to underwrite as a group. They took half an hour, and they came up with the rates. Then each small group presented to the rest of the group their final price and their rationale, and then we tried to beat them down. We got to a point, and they said, "No, we're not going to go a penny further," and "Yes, this is what we would do if we were back at the office too." In each of the cases, after they came to their final price, I asked each of the 20 underwriters to raise their hand if they thought the carrier would get the case at that rate. Not a single person raised their hand. So we look at these case studies, we looked at these clues and in these environments, and how we want it to be done. It's great, but then they get out in the real world and it gets a lot tougher. So be nice to your underwriter. Underwriters have a tough job, but keep up with what's going on over there, too.

Let's talk about a few specific challenges that they're facing. Self- reported data is a pet peeve of mine. I had an epiphany about three or four years ago when an underwriter brought an STD case to me that was 100 percent credible. He said "The paid claims they gave us on this case were $46,000, but the manual paid claims were $450,000. Do you think that's a problem?" I said, "That's how you can write an STD case that's 100 percent credible and come back with a 300 percent loss ratio! It was self-reported data. They purport to be tracking all the information but were not really capturing everything that was happening.

I don't know if it's exactly the right way to look at it, but I guess I'll share some thoughts that I have on a few of these points. I believe in conducting a reasonableness test, comparing experience rates to manual rates. It's certainly appropriate on an STD basis. I think it can be done also on an LTD basis, as well as when you've got some questions about the quality of the information. It's particularly an STD problem, though.

Avoid the myth of detailed data. A lot of times you'll get, "Hey, these are the claims we have." They give you the name of the people that went out on claims. They'll give you the date of disability. They'll give you the return to work date. They'll give you the cause of the disability, and you're like, "Wow, that's great, except that potentially not all of the claims are really getting into their tracking system if it's a self-managed plan.

There are questions you can ask. If it's a salary continuation plan, and basically all the person has to do is call in sick, talk to his or her supervisor and say, "I'm going

to be out for a couple weeks," then you may have a problem. If there's really a centralized function where an employee actually has to submit a form to HR, and then they're going to receive a benefit that's less then 100 percent of salary, then maybe you've got a better chance. So that's something to be aware of. You can have great underwriting, and then you can undo a lot of hard work by writing a few cases at 45,000 instead of 450,000. So I guess I'll probably put that one on top of my list as my pet peeve.

High Marketplace Credibility

High marketplace credibility is certainly another issue that can cause renewal rates to be volatile. If, after this presentation, you decide that maybe you really are assigning too much credibility to these cases, based on what it looks like the theoretically credibility is, it's tough to go out into the marketplace and be a leader and say, "Well I'm going to give much less credibility than everybody else," unless you have a strong stomach and you are willing to be more aggressive on cases that are running well above manual and less aggressive on cases that are running well below manual.

It can be a tough place to be. At the very least, I would recommend maybe modifying that statistical credibility based on data credibility, based on how good that information is and how representative you feel it is without trying to make the whole thing too soft and perhaps allowing some room for that sort of consideration.

Interest Rates

I'll talk about interest rates briefly. At the very least, make sure that you keep up with the underwriting reserve assumptions as well. So if you're used to dealing with reported reserves, make sure that you keep an eye on those underwriting reserves as well in this environment. Again, perhaps filing flexible interest rate assumptions; we heard a little bit about that yesterday. I've heard it from a couple of other people, as well, that that's starting to be an approach that may work, whether it be actually putting an index rate right in the filing so it's automatically done or at least setting something up so that's relatively easy to file an adjustment to rates, rather than really restructuring your entire manual rate. Structure based on interest rate change—may not be mathematically perfect, but can still go a long way towards alleviating that issue.

Rate Guarantees

There is pressure to guarantee rates. It's a price-competitive market, so because of that, obviously companies care about the rate. So the rate guarantee becomes a big part of that.

It often comes in late in the process. You've been beaten down to a point where you're barely comfortable with the rate you're at, and then they say, "Great, now can you guarantee it for two years or three years?" Then you'll get the case. So it can be tough. There are various ways you can offer modified rate guarantees, something where maybe you guarantee for a couple of years, but then after one

year, you're going to check the incidence rate. That's a good approach if you're perhaps not that comfortable with the information you got up front, that you can get a little bit of in-force business behind you and perhaps put in the contract to allow an adjustment for that.

Capping increases works well sometimes, versus an outright rate guarantee. If you think that you're in pretty good shape, you haven't taken a big flyer—that might be something you can do. It helps—it makes the company feel a little more confident in the rate.

Then a no-change zone maybe comes into play when companies are concerned that you just dropped your rate a penny to beat the competition, and you're nickel-and-diming them. That way you can say, If the rate increase called for is less than some number—10 percent, or something like that—you won't change the rate for another year. That can help. I've seen that work quite a bit.

Competitive Renewals

As for competitive renewals, I think the environment at one point was such that you tried to get that business in the door; but once you did, you had a pretty good chance of holding onto it. But it's very easy for a case to go out to bid these days; so that's not really the environment we're in anymore. Because the new case market is so aggressive, it's that much more important that in-force business is profitable. It's carrying that much extra burden.

One thought is to not think of your renewal strategy as a revenue generator necessarily and instead think of it as a way to improve profit. So perhaps you're targeting the least profitable cases and moving them quickly up to a profitable level. Even if that means losing the case, you just can't afford to have cross subsidy.

Pay attention to rate-to-manual levels if you've got cases that are well below manual. They're good candidates to move up on. They're the ones that probably have the most potential for significant losses. If they're well below your manual, there's a good chance that they're very competitive rates. The pressure these days is to always lower those rates. So I think that in some ways you can, if you can alleviate that pressure; but if they have a profitability component for their performance measure, that's certainly one thing that can help keep that focus.

Realistic Goals

Then you can set realistic growth goals and come up with real ways to achieve them. If management is just asking you to pump that growth rate from 8 percent to 20 percent, if all you're going to turn to is rate, then you're going to get exactly what you're going to get. I hate to use terms like value proposition, but you need to have some reason why companies are going to come and insure with you, and hopefully it's not just rate. There's a lot going on.

Chart 1

The Group Disability Environment

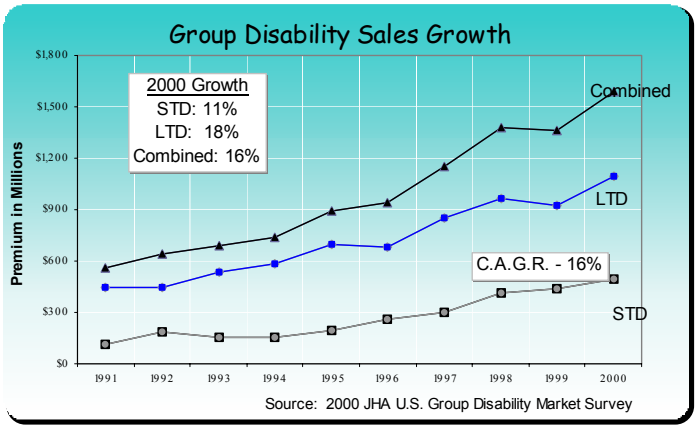


Chart 2

The Group Disability Environment

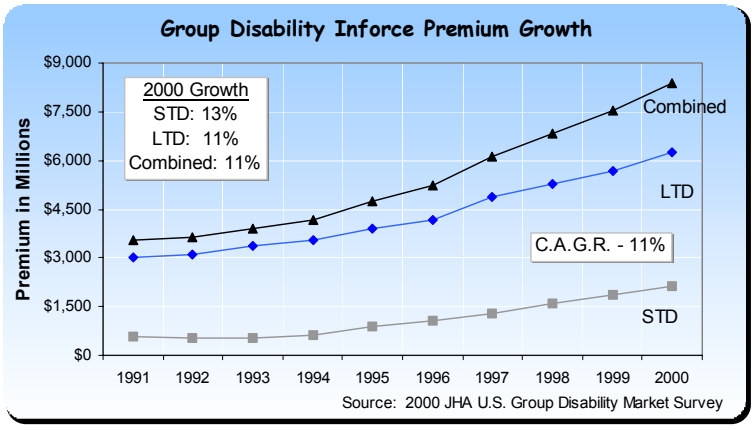


Chart 3

GROUP LTD LARGE CASE UNDERWRITING - Sample

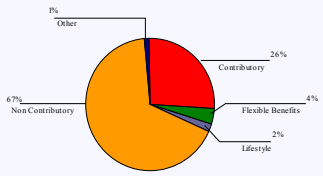
ClientCo, Inc

Developed specifically for our Valued Customer
Policy # 1234567890

Current LTD Rate

	Figures Based on Septemeber 1998 Statement
Inforce Rate	.51
Monthly Premium	$75,000
Annual Premium	$900,000
Covered Payroll	$18,000,000
Covered Lives	5,000
Employee pays	0%

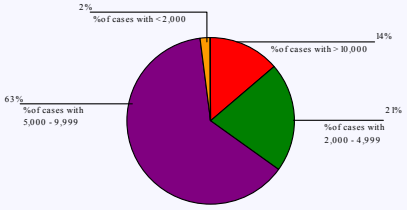
Funding Type:



LTD Plan Review

	Class 1	Class 2
Eligibility	Executives eligible for the deferred compensation and restoration plan	All Other Employees
Waiting Period	None	None
Covered Earnings	Current income and …	Current income and …
Etc…	…	…

Maximum Monthly Benefit:



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