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INDIVIDUAL DISABILITY INCOME --WHERE HAVE ALL THE MARGINS GONE?

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Panelists: DAVID S. COX

ROBERT G. MEILANDER

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Morbidity
-- AIDS claims

- Pregnancy claims

- o Field compensation expenses
- o Persistency
- o Investment income

MR. DAVID E. SCARLETT: I'm a consulting actuary with Milliman & Robertson. We have one of the finest disability income panels ever assembled in the history of mankind: Bob Meilander from Northwestern Mutual, David Cox from Provident, and Dick Mucci from Paul Revere.

Leading off our discussion will be David Cox from the Provident. He is Vice President of the accident department and is in charge of the actuarial functions as well as financial services and the data processing liaison team.

MR. DAVID S. COX: Where have all the margins gone? Would you believe they have all gone south and are accumulating in Chattanooga, Tennessee, home of Provident Life and Accident Insurance Company? In the 1970s and early 1980s, that is what our Provident field managers and home office marketing people would have had us believe. However, even our Provident field sales people know our margins have reached levels which are too low for the long-term financial soundness required for the magnitude of the risks being insured.

My remarks will focus primarily on changes in profit margins during the 1980s with some background comments relating to the dynamics that occurred in the late 1970s and early 1980s which stimulated the industry actions that contributed to the changes in margins. Then, I'll make a few comments about the current situation: 1989 and near-term changes.

If the margins have diminished, then how much? Just how far "south" are the margins? Graph 1 shows the combined statutory Schedule H, Part 1 results for the top 5 individual disability companies, comprising 50% of the market according to the LIMRA Marketing Survey. Please note that since investment income is not considered directly in the Schedule H analysis, in the early 1980s underwriting results of 0% to -10% of earned premium usually denoted exceptional overall operational results (after tax ROE 20% plus).

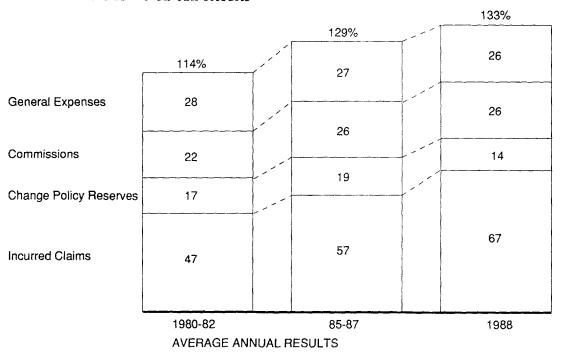
As can be discerned, the primary contributor to diminishing underwriting results in the 1980s has been morbidity, with some contribution from increasing commissions. Obviously, before deciding exactly what happened to the profit margins of individual non-can disability income, we should understand some of the dynamics which contributed to the changes, illustrated in Graph 1.

At this point, it is necessary to recall what the non-can individual disability income products and premium rates represented in the late 1970s and early 1980s. By the late 1970s, the industry was again aggressively marketing individual disability income and had adjusted to the mid-1970s period when loss ratios had increased abruptly for some companies. This mid-1970s phenomenon combined with adverse economic conditions in 1974-75, the oil embargo, the emergence of more "long-term" your occ claims, the "residual" concept (permanent partial), etc., caused several companies to either restrict their individual disability income operation or get out all together.

GRAPH 1

COMBINED STATUTORY RESULTS OF TOP 5 INDIVIDUAL DISABILITY COMPANIES As a Percent of Earned Premium

Part 1 Schedule H -- Non-can Results



During the 1970s through the early 1980s, new and powerful unprecedented economic forces began impacting the individual disability income industry:

- Investment yields were moving into the double digits. Before this cycle would end, insurance
 companies which had assumed aggressive yield rates of 7%-8% in pricing during the late
 1970s would be investing their new cash flows and rollover investment income in bonds and
 mortgages yielding twice those rates; in many instances, 14%-16% yields were not uncommon.
- Inflation was greater than 5%! In fact, inflation, if you remember, achieved unheard of levels of 10%-12%. In pricing individual disability products, many had allowed for only 4%-6% inflation rates.

Thus, in the early 1980s in reaction to unprecedented inflation, workers' earnings were increasing 10%-15% annually (some professional occupations enjoyed even higher earnings increases, 15%-25%). This phenomena, combined with extraordinary investment yields resulting in tremendous asset investment income leverage, provided significant increases in the industry's operating results. How could the industry lose? On a short-term basis, it could not.

Beginning in the early 1980s, market share gain became the dominant force in the individual disability income marketplace. The more premiums grew, the more funds a company could invest, the greater the short-term return and the greater the investment results and earnings potential. Issue and participation limits were changing frequently to catch up with the rapid increase in workers' earnings and potential future earnings growth!

Excessive investment yields would more than offset any costs associated with liberalizations in underwriting criteria and policy provisions since few such liberalizations had any immediate dollar costs impact. Thus, here is some of what took place beginning in the early 1980s up through 1985-86:

- 1. Lifetime "your occ" provisions.
- 2. Residual benefits without a preceding total disability requirement.
- Cost-of-living adjustment (COLA) benefits of 5% to 10% during a period of disability on an individual disability income product; this was unheard of until the 1980s.
- Automatic increases in benefits without economic or medical underwriting during the initial duration of new issues.
- 5. To Age 65 "back to work" benefits following recovery from disability.
- 6. Guaranteed issue amounts: \$5,000-\$10,000 per month or more.
- 7. Waiver of underwriting criteria in group situations involving multiple lives.
- 8. Corporate arrangements involving sharing of profit margins.
- 9. Increased commission levels for the producer.
- Monthly benefits of \$30,000-\$50,000 on business products such as business overhead expense (BOE) or Buy-Sell.
- 11. Unisex rates made by lowering female rates to male rates.
- 12. Coverage of normal maternity.
- 13. Premium discounts:
 - a. list billed discounts of 15% or more
 - b. association member discounts
 - c. nonsmoker discounts
 - d. etc.

"Would the party ever end?" was the question few asked. How could anything occur to dampen the dynamic earnings results of the early 1980s?

During the early 1980s, there were few, if any, indicators that the dynamics driving the market and industry (double-digit inflation, many occupations with earnings also increasing at double-digit rates, 15% new investment yields, an infinite ability to generate larger and larger new premium volume) would not prevail forever. Beginning from the mid-1980s on, however, various signals that the economic panacea was not permanent began to emerge: the "seven years of plenty" were ending.

Claim costs were increasing. What contributed to these claim cost changes?

- 1. Inflation had been suppressed sharply, now averaging only 3%-4%; thus workers' earnings growth rate diminished sharply.
- 2. Investment yields had diminished to 9%-10%.
- 3. AIDS! Beginning in 1985, this new disease was prevalent in many of our insured, not just in a social/economic class which would not buy disability income insurance. Graph 2 represents Provident's AIDS claim experience. Although Provident's AIDS claims contribute only 1-2% of our total claim liability, the continuance rate is increasing sharply.
- 4. Claim durations, and in some instances, frequencies, were increasing.
- 5. Many of the risks insured during the industry's period of being market-share-driven decided that collecting disability benefits was not bad; in fact, to some being disabled was the best economic alternative available.

Thus, statutory underwriting profits were deteriorating while the investment income leveraging of the early 1980s was moderating and loss ratios were increasing abruptly.

What is the industry's economic health profile today and for the future? Beginning in 1987-88, there have been signs that the industry is changing to assure the return of more reasonable standards for financial soundness in the individual disability market. For example: Policy provisions are being reworded in some cases to provide more protection against unjustifiable claims.

Occupational manuals are being revised to assure that the non-can policy provisions, the rate structure and the occupational classification systems are in a more reasonable risk/premium rate relationship. Premium rates are being increased to provide margins more commensurate with the long-term financial risks involved. Underwriting practices are becoming more selective. Guaranteed issue is being severely curtailed. Operating expense controls are being emphasized. Survival is now the focus of many companies, not market share. The challenge for the industry today is how to guide statutory Schedule H underwriting results back toward the levels achieved during the early 1980s.

When Dave Scarlett first asked me to participate on this panel, I hesitated in accepting such an invitation since I no longer am directly accountable for performing detailed actuarial work. Dave told me to "be happy, don't worry, just tell us how Provident makes money in the individual disability income market." Well it is really very simple; in the south, we move more slowly, we talk more slowly, and morbidity emerges more slowly.

By the time Provident begins to experience morbidity changes in our block of business, others have already identified the trends in morbidity. Thus, we have had time to determine and better understand the causes and prepare for the changes while capitalizing on other's actions already taken. Therefore, we can react in a more timely way while remaining unique in our operation by innovation and still make a profit.

Seriously, you cannot afford to overreact either way: being too aggressive in trying to penetrate the market or being overly restrictive in limiting your marketing operation. For instance, quoting Chuck Soule, Executive Vice President, Paul Revere, "Continual refinement in the areas of product language, rates, compensation, underwriting, and claim management is essential in order to adjust to cyclical changes that are a normal part of our business."

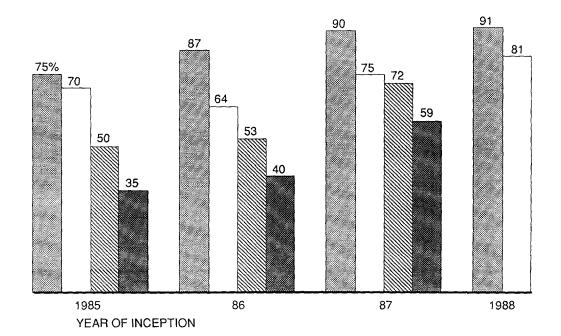
To survive in the financially volatile individual disability income market, a company must possess the financial resources to endure the lean periods of operating results. However, the risk can be enormous; for example, Provident's total inforce monthly benefit is approximately \$700 million.

Assuming all insureds became disabled today and remained disabled for the maximum benefit period, the commuted value of all inforce benefits easily approaches the magnitude of \$70 billion. Also, a company must be able to manage the sometimes conflicting forces of morbidity, investment yields, and inflation while effectively distributing its products. If a company has available the assets, management skills and distribution system to meet these requirements, then the results can be very rewarding.

MR. SCARLETT: Bob Meilander is Managing Actuary at Northwestern Mutual Life Insurance Company. Bob is in charge of product development and pricing for both the individual and group lines of business.







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MR. ROBERT G. MEILANDER: In the interest of being dramatic, Graph 3 is a view of what's happened to profitability over the past eight years. This particular graph looks a lot more like one you might have seen in the comic strips when you were a kid -- you remember, back when you had time to read comic strips. At any rate, this type of chart was always shown in a business environment when things were going really bad. It was funny at the time, but it's not particularly funny today. The point is that profitability has deteriorated dramatically over the past two or three years.

I'm going to take a look at some of the significant profit factors that affect the disability insurance business. I will be looking at morbidity results, particularly as they have affected my company in recent years. I will take a brief look at expenses and commissions and I'll spend some time on investment income. Finally, I'll make a few comments about lapse performance. You will note that these are the five major determinants of profit. Along with premium levels, they will determine the profitability of the product line.

Before I continue, I would be remiss if I didn't point out that the source of this particular chart is work done by Duane Kidwell. Duane has regularly published a chart showing average Schedule H data for nine top companies that write 65% of the non-can disabilty income (DI) business. I will be using data from that chart periodically during my talk.

In order to determine which of these profitability factors are most significant, I've taken a look at how, as an industry, we spend our money. The way the top nine companies spent it in 1987 was as follows: Benefits to policy owners accounted for 44% of premium. When added to the increase in reserve, to determine total benefit cost, we find that 54% of our money is spent on benefits to policy owners. Commissions take up another 21% and expenses are responsible of the remaining 25%. Note that we don't spend money on profit. We used to but we haven't since 1985.

The biggest single determinate of profitability is benefit costs. For this reason, I will spend more than a little bit of time on morbidity costs later. Note also that expenses and commissions, at 46%, account for nearly half of our total expenditures. That makes these items an important determinant of profitability as well.

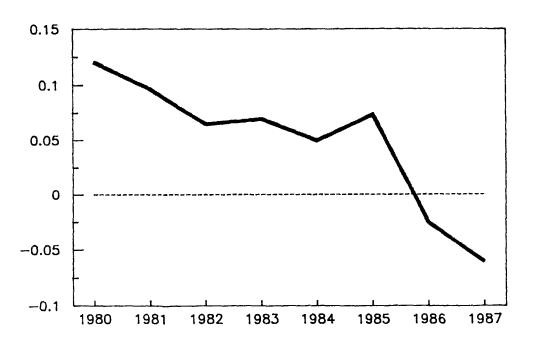
Now let's take a look at the flip side of this picture -- where our money comes from. In 1987, 77% of the nine companies income came from premiums. A key factor determining how much premium we get is lapse rates. I'll have more on that later. Investment income accounted for another 18%. This makes investment income a sizable determinant of profitability. Finally, other product lines of the companies contributed 5% of the total income to the DI line. In effect, the losses on the DI lines of these nine companies were paid for out of the profits of other lines. You can think of this as a subsidy if you'd like.

Now let's turn our attention to the single largest determinate of profitability-morbidity costs. Graph 4 shows morbidity results for nine top companies, as a percentage of premium. As you can see, morbidity levels rose modestly, about 1 percentage point per year throughout the 1980s until 1986. In 1986 we saw a significant increase in morbidity costs and that new level has been maintained since then. Based on this graph, I think one would have to say that morbidity levels have changed. The key question that has to be answered is, what changed? This is a particularly interesting investigation because whatever it is that changed, changed for an entire industry at one time.

It is also worth noting that it changed only for the individual disability industry. My friends in the group business tell me there are no obvious trends in group morbidity -- rate levels have changed only modestly over the past few years, and changes have gone in both directions. Furthermore, the increase in morbidity costs doesn't seem to have shown up in waiver experience. I recently reviewed our morbidity experience on our life waiver and, if anything, it shows a downward trend. So whatever it is we are looking for happened industrywide around 1986 and only to the individual disability business. It did not happen to group and it didn't happen to waiver.

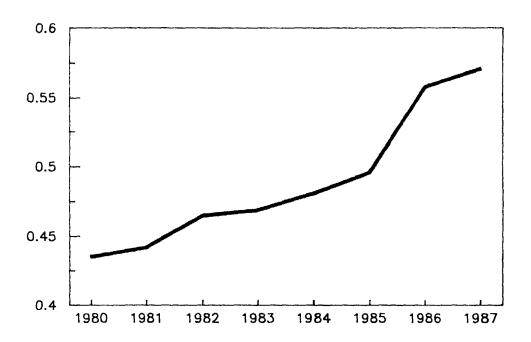
So again, the big question is, what changed? In order to get an answer to this one, at least as far as my company is concerned, we undertook a major study of recent experience. The focus of this

Profitability - 9 Companies (as a percent of premium)



PANEL DISCUSSION GRAPH 4

Morbidity Costs - 9 Companies (as a percent of premium)



study was on changes in claim patterns between the first half of the 1980s, a very good period for our DI line (and for the industry as a whole, I believe) and more recent times.

The analysis I'm going to use is a bit crude but it does give an indication of what's going on in the block of claims that we have. The method superimposes the base period distribution of claims by various factors over the expected number of claims for year-end 1988. The difference between the actual number of claims in each category and the number expected shows where the extra claims are.

The method highlights where we have more claims than we had before and it is dependent not only on relative rates of claim between the two time periods but also on changes in the active inforce block. To some extent, this is a limitation but, as we will see, a big part of the problem we are dealing with is a function of changing distributions in the active inforce.

The most noticeable characteristic of the extra claims is that over half of them are on women. There are several reasons for this. Like most other major writers of individual DI, we began covering normal pregnancy in 1985 in response to the Norris decision. Since that time, we have seen a significant increase in not only normal pregnancy claims but also in complications claims. This probably is not coincidence. Coverage of normal pregnancy seems to have encouraged pregnancy claims in ways that were not anticipated.

Another cause for the increase in female claims is that there are more women in our inforce. Another response to the Norris decision was the introduction of sex-neutral rates. This made our product more attractive to women and we sold it to more of them than ever before. The result is that the percentage of women in the inforce has just about doubled. Since we insure more women, there are more of them on claim.

Finally, our experience on women has deteriorated over the past few years even if pregnancy is ignored. So far we do not have any specifics about the cause of that.

We also have a sizeable number of extra claims due to mental causes. The big change appears to be related to the length of these claims. We have seen a modest increase in the number of new claims for mental reasons as well but the big item is length of claim. The average length of our active mental claims is up more than 30% compared to the base period.

Musculoskeletal causes have also increased in prevalence. For the most part these are back problems. There is an interesting similarity between these two types of claims -- they are among the most difficult to verify. It may be that we are creating situations that encourage claims, for example, by overinsuring. This is consistent with the lack of claim deterioration in the waiver and group areas.

Finally, as far as causes of disability are concerned, it does not appear that AIDS is a significant source of extra claims. This is an area that deserves our attention but the magnitude of the current problem is too large for AIDS to be much of a factor.

Certain relatively new policy provisions also seem to be sources of extra claims. Perhaps the most notable of these is the new partial disability benefit on overhead expense. We have seen a sizeable number of claims relating to this benefit. Benefits that are paid without regard to loss, usually related to the partial benefit, also have generated extra claims.

The remaining extra claims are a little more difficult to isolate. For the most part, the extra claims appear to be in our prime market of white collar baby boomers. There are no extra claims above age 50 and none in the lower occupation classes. However, that covers most of our inforce. So, in this regard, it appears that there has been a generalized deterioration in experience in addition to those areas that can be specifically identified.

What changed? I'm sure we all have our pet theories on that one but it appears to me that the major change to hit this industry right about that time (1985) was the move to unisex pricing and coverage of normal pregnancy. I just can't get the fact out of my head that this one change fits all the evidence we've seen. It happened at the right time and it only affected individual DI. And, women account for over half of the extra claims.

In addition, we have seen a general deterioration of morbidity levels. It is difficult to determine exactly why this has occurred but there are theories. My favorites are that the philosophy of entitlement usually attributed to baby boomers has finally taken hold. I recently had this philosophy explained to me. I had tended to think of this concept in terms of rights but it isn't. It is best to think of it in terms of utilization. "I paid for it so I am going to use it." This, coupled with a tendency to sell insurance by emphasizing the ways one can collect from it without being hurt, and questionable participation limits, seems to be a prescription for what we are seeing.

Now let's take a look at expenses and commissions. Taken together, they are probably the second most important determinant of profitability. Graph 5 shows there has been a noticeable upward trend in the total of expenses and commissions over the past eight years. In 1980, these two items accounted for 48.2% of premium. By 1987, they had risen to 59.3%. That's an average increase of about 1.5 percentage points a year.

To some extent, it is risky to separate the expense and commission numbers. In many cases what is one company's expense is another company's commission. Therefore, the results obtained by looking at these numbers independently may be misleading. However, assuming that these companies are consistent in their accounting from year to year, an analysis of the trends in these numbers should be useful.

Home office expenses, including taxes, licenses and fees, grew rapidly between 1980 and 1984 but appear to have stabilized at a level of about 31% of premium. Stability is nice, but that level is about 20% higher than the level of 1980.

Commissions have shown a more steady rise. The rate of increase, since 1983, has been about 1 percentage point per year. The trend on this one is not good.

In an attempt to get more detail on changes in expense levels, I conducted a survey of a number of top companies. This survey tried to identify acquisition costs as a percentage of first year premium, maintenance costs as a percentage of total premium, and claim administration expenses as a percentage of cash claims.

There has been a significant decline in acquisition costs (73% in 1981, 58% in 1985, 55% in 1988), virtually no change in maintenance costs (8%), and a bit of decline in claims administration costs (7% in 1981, 7% in 1985, 6% in 1988). In reviewing these results, it should be noted that one company significantly affected the acquisition cost figures. However, even with that company excluded, there was a noticeable decrease in acquisition costs between 1981 and 1988 although there was virtually no change between 1985 and 1988.

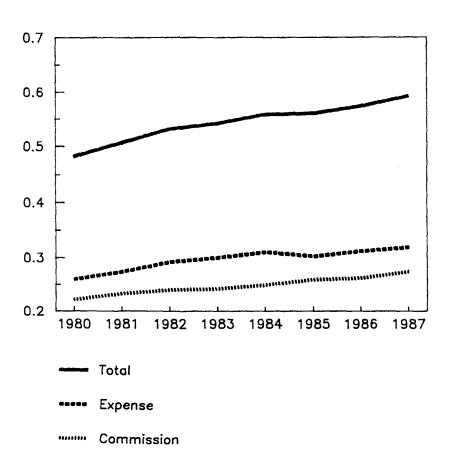
As you may have noticed, these results are inconsistent with the results shown earlier for nine companies. For the most part, this is simply a reflection of the fact that the companies that were in my survey are showing different expense trends than the industry. In addition it may indicate that some of those field-related expenses may be increasing more or that the relative distribution of these types of expenses may have changed.

One item of note from my viewpoint is, the percentage of cash claims paid out in claim administration expense. In effect, what this says is that proper claims administration requires spending about seven cents for every dollar of benefits paid out. What is significant to me is the decline between 1985 and 1988. I think it is safe to say that as claim costs have gone up, we have not kept pace in terms of staffing. While I don't have the figure for 1987, my guess is that it would be lower than the 6% shown for 1988. A number of the companies in this survey rebounded in this area in 1988.

Now let's look briefly at commissions. Commission costs are increasing for the industry as a whole. As this business has become more and more competitive, that competition has spread into the agents' commission area. While it is true that most companies have not changed their basic commission rates, many have been tinkering with bonus arrangements of one sort or another.

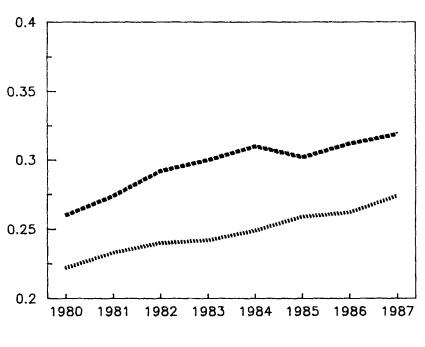
Graph 6 shows that the total cost of expenses and commissions has been rising over the past eight years. And, since expenses and commissions make up a sizeable portion of total expenditures, this increase is a significant drain on profits. For the most part, the recent increase in expenses and

Expenses & Commissions - 9 Companies (as a percent of premium)



PANEL DISCUSSION GRAPH 6

Expenses & Commissions - 9 Companies (as a percent of premium)



Expense

...... Commission

commissions is driven by distribution costs but it is worth noting that expenses associated with these products have also risen.

Now I'd like to turn your attention to investment results. Graph 7 shows investment return as a percentage of premium for the nine top companies. As you can see, investment returns were more than 20% of DI premium for these companies for each year shown. That's a pretty big chunk of revenue. We tend as an industry to focus mostly on expenses and morbidity results. But 1/5 of our revenue comes from investment income. While investment income is not as important to a disability income line as it is to a life line, it is still a key determinant to profitability.

And, as we all know, investment rates have been dropping. From a peak of 11.4% in 1985, the average investment income of AAA bonds has declined to a rate of 9.6% in 1988. It is still well below the hey-day for interest of the 1980s. In terms of dollars, this change is significant. Today, for these nine companies a 2% drop in investment would be worth about a quarter of a billion dollars. That's a pretty big chunk of change.

And the expectations for the future in this area are not good. It appears that, despite the trend of the past six or eight months, interest rates will continue downward. In the past we have made up for a lot of mistakes through our investment returns. We are not likely to continue to be able to do so.

The final determinant of profitability is lapse rates. However, as I'm sure most of you know, lapse rates can have a curious effect on disability insurance.

In some ways, favorable lapse rates have a positive impact on profitability. When we keep more of the business we write on the books, that gives a bigger premium base upon which to allocate our overhead expenses. It also gives us a longer time period to repay initial high acquisition costs. Finally, a favorable lapse rate probably means that the block of business that's left after lapses have been taken out is a bit healthier than one with a high lapse rate. On the other hand, more favorable lapse rates mean that there are more people around to pay claims to. Since disability insurance has no cash values, lapses at later durations can result in a profit to the company.

To get a handle on the impact of lapses on profitability, I ran some asset share tests. For the most part, Graph 8 shows that better persistency means better profits. The top line is based on no lapses at all. This shows the best overall profitability. The next line shows a flat lapse schedule at the ultimate level. It, too, is more profitable than normal. The next line is a normal lapse schedule. Finally, the bottom line is based on twice normal rates.

The point is that better persistency means better profits. However, while it isn't specifically shown, there are situations when better persistency has a negative impact on profit. This occurs when the cash cost of the policy, ignoring investment income, exceeds the premium. For most plans, this occurs very late in the game, if at all.

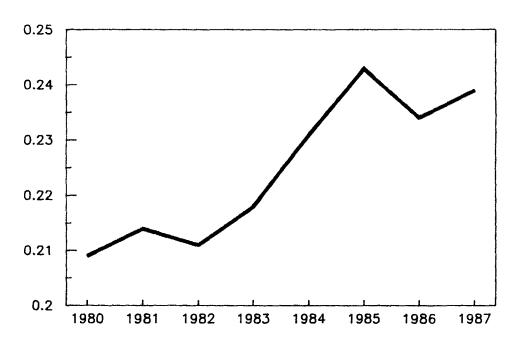
Unfortunately, there isn't much intercompany data on lapse rates. The Life Insurance Marketing and Research Association (LIMRA) has done studies for each of the past three years and, to the best of my knowledge, that is the only industry information that is available. Based on these three surveys, there has definitely been an improvement in lapse rates over the past three years. According to the 1986 study, just under 25% of the policy owners that originally purchased a policy would still be around after 10 years. In the 1987 study, that number had risen to about 29% and by 1988 it was up to 32%. I read this improvement in persistency as a positive result.

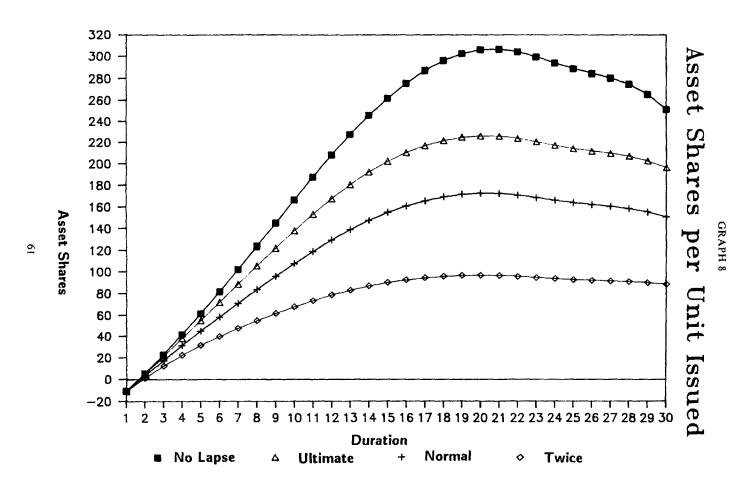
I have reviewed a number of major profitability factors that affect disability insurance. The most significant factor is, of course, morbidity results and morbidity results have not been good recently. Other factors, particularly the changes in the investment arena, have also had an impact on profits but those factors have not been nearly as significant. It is morbidity results that have driven profits negative. While no one seems to know exactly why morbidity costs have increased, there are lots of theories. You have already heard some; now we are going to hear some more.

MR. SCARLETT: I'm going to represent Monarch Life Insurance Company. I worked at Monarch for over 12 years, as Vice President and Chief Actuary, and most recently as Senior Vice

PANEL DISCUSSION GRAPH 7

Investment Income - 9 Companies (as a percent of premium)





President, Health Insurance. Now that I am with Milliman & Robertson, Monarch is one of my clients, and has agreed to let me share some of their morbidity experience with you.

First of all, I want to talk about Monarch's AIDS claims experience and some of the results of the testing that is in place to protect against the AIDS risk. I'd like to briefly touch on pregnancy claims, overall claim termination rates, and experience in California.

Let's look at the AIDS claims experience first. Graph 9 shows the AIDS claim payments that Monarch has paid quarter by quarter beginning with the last quarter of 1983 and extending through the first quarter of 1989. (By the way, my AIDS statistics include AIDS-related complex (ARC) claims. Monarch does not differentiate between the two.)

Monarch received its first claim in the fourth quarter of 1983 and paid only \$2,500 in that period of time. It wasn't until 1985 that we really started to see numerous AIDS disability claims, and you can see the very rapid increase in these claim payments from 1985 through 1986, reaching a peak in the third quarter of last year.

You can also see that there has been a slight reduction since the third quarter of last year, but then the first two quarters of 1988 showed a slight reduction from the last two quarters of 1987. Monarch paid out about 40% more in 1988 than they did in 1987, and the first quarter of 1989 is showing about a 40% increase over the first quarter of 1988. Will the 40% growth rate continue in the future? I would expect some deceleration of the growth as the effects of the testing program and tighter underwriting take hold.

It is absolutely clear that Monarch has been selected against when you consider that 51% of all of the AIDS claims were received in the contestable period, the first two policy years. This compares to a normal percentage contestable of about 17%. The percentage of contestable claims received in 1987(49%) and 1988(33%) were clearly reduced, although well above a normal level. Our hope, of course, is that with tighter risk selection we will be able to reduce this antiselection as much as possible.

It is clear that the duration of AIDS claims is getting longer and that with drugs like azidothymidine (AZT), which extend life and thus extend disability, claim duration may be the area which will hurt disability writers the most from a financial point of view.

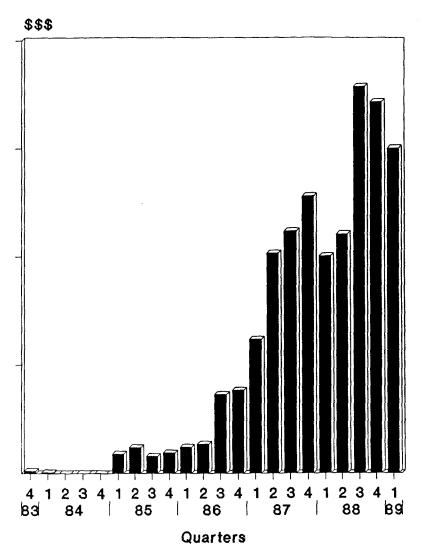
There is a significant diversity of occupation with AIDS claims. Physicians account for 11%; business executives, 7%; dentists, 7%; hairdressers, 7%; designers, 4%; theatre arts, 4%; lawyers, 3%; and all others 57%. Monarch sells to a lot of physicians; and, therefore, it should not be surprising that physicians comprise the largest number of AIDS claimants. The next most prevalent occupation is business executives, and in that category we are really talking about executives in the best occupational class. We do not sell to a lot of hairdressers, designers and people in the theater arts, so these occupations do have more than their fair share of AIDS claims. AIDS is not simply a problem of the lower socioeconomic classes. It is a problem that cuts across all economic strata and all walks of life.

Geographically, there are really only two states that stand out in our experience: California and New York. Those two states together comprise 59% of all the AIDS claims we have seen thus far. San Francisco and New York City are the two cities where we have high concentrations of claimants.

I'd now like to discuss the results of the testing that Monarch has in place to protect them on the AIDS front. We have developed an AIDS profile and began "testing for cause" in mid-1986. In September 1987 we began testing by amount, and I think Monarch's testing requirements are somewhat more aggressive than most of the major competitors in the non-can disability income marketplace. They test at \$3,000 per month in all states except California, New York, New Jersey, Florida and Texas, where they test at \$2,000 a month. As an aside, I would point out that Connecticut and Nevada now have higher AIDS incidence rates than Texas, so the testing programs need to be constantly reviewed.

From September 1987 to March 1988, 7% of our positive tests were HIV-positive and another 6% were T-cell- and antigen-positive. Sixty percent of the adverse underwriting action that we have

AIDS PAYMENTS BY QUARTER, 1983 - 1989



Data from Monarch Life Ins. Co.

taken due to the testing has been because of abnormalities detected by SMA panels. These are typically liver function problems, due primarily to alcoholism we think, that result in applications being declined or policies being rated (most of them are declinations). An even more amazing statistic to me is that 27% of our total positive hits have been due to cocaine use. We expected to protect Monarch from the AIDS antiselection, but clearly we are also protecting the company against other significant antiselection.

To give you a feel for the frequency of positive hits, I can give you the following statistics for the tests performed in 1988. With regard to AIDS, both HIV, T-cell and antigen positive together, the frequency of positive results has been 4.2 per 1,000. This is somewhat higher than we expected but is probably due in part to the fact that the T-cell and antigen tests are less than perfect. Cocaine frequency is at 7.6 per 1,000, and SMA abnormalities are running 20.1 per 1,000. With frequencies like these, we are convinced that from a financial point of view we can justify the cost of testing for almost every single policy regardless of how limited the benefit structure is.

California accounts for exactly half of the positive AIDS hits, although we must remember that much of the testing there has not been the HIV test. The states that are clearly giving us the most problems are California, New York and New Jersey.

Another problem area for Monarch has been pregnancy claims. Females account for 25% of the policies Monarch sells, and about 16% of the premium. In each of the last three years, the company has paid out more for claims due to pregnancy than for claims due to AIDS. Complications of pregnancy seem to be very prevalent. Roughly two-thirds of the pregnancy claims in the last three years have had some sort of complications associated with them and payments on complications of pregnancy claims are significantly higher than on normal pregnancy claims.

Many of the pregnancy claims are received in the first two policy years, so there is clear antiselection against the company. The percentage has declined significantly in 1988, probably as the result of more restrictive underwriting that was implemented a couple of years ago.

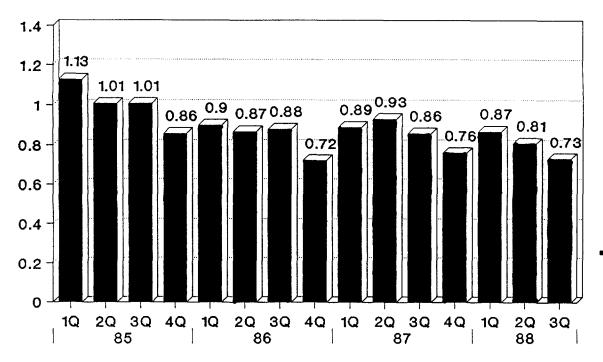
Our latest morbidity studies show an overall female-to-male claim cost ratio of 1.59 grading from more that double at ages under 30 down to slightly less than 1.00 at ages over 59. Unisex pricing makes absolutely no sense in disability income insurance, and sex distinct rates may well be the way our industry will compete for the lower-cost male applicants in the states where permitted by law. Some of you may know that Minnesota Mutual went back to sex-distinct rates, and they have commented to me that their sales to females dropped only modestly.

Monarch studies its claim termination rates every quarter, and we have seen a steadily decreasing rate over the last three years. Graph 10 shows actual to expected claim termination rates, where the expected is the Monarch morbidity table used to price the current portfolio. We have been trying to come up with reasons for such a decline in claim terminations and feel that liberal product provisions, some overinsurance, liberal cost of living benefits, and lower actual inflation have combined to remove many of the incentives to return to work.

The last subject I'd like to bring up is California -- Monarch's experience has been terrible. Over the 18-month period from July 1987 to December 1988, actual morbidity has been 74% in excess of the morbidity that we priced for. If we look at just the more recent issues, those policies issued in 1985 and later, morbidity is about double what we priced for. These facts seem to hold in all areas of the state, and are not much different between our brokerage- and career-produced business. None of our California offices are producing profitable business.

In trying to analyze the California problem, we have discovered the following:

- Morbidity in the best occupational class is good. The problem lies outside the top occupational class.
- 2. Perhaps a corollary to the above is that the 90-day and longer elimination period business looks good; the problem lies in the shorter elimination periods.
- 3. California seems to be the reverse of the rest of the country in that claim termination rates look reasonable; higher frequency is the problem.
- 4. Claim costs at the older attained ages look reasonable; the excess claims are coming from people under age 50.



Data from Monarch Life Ins. Co.

5. Mental and nervous disorder claims are disproportionately high in California. Monarch has tightened up the underwriting of California business, taking particular aim at the problem areas I just mentioned.

In summary, then, I'd like to give you a few personal comments on these morbidity trends. I think that tighter underwriting and testing by amount are needed to protect companies from more AIDS antiselection. All companies should be testing at much lower thresholds.

Premium rates in the individual non-can disability income industry have already increased, and will probably continue to increase in the future. AIDS is clearly one reason that prices will increase, both by the AIDS claims that must be paid to honor the contracts as well as by the high cost of testing that we need in place to protect companies against significant antiselection. But AIDS is only one reason that I think prices will rise.

There is clearly a deterioration of morbidity in our industry, especially lower termination rates. We have studied our morbidity very carefully at Monarch and have determined that frequencies are behaving themselves pretty well (outside of California). Except for AIDS and pregnancy claims, Monarch's actual-to-expected frequencies are pretty much on target. But claim termination rates are significantly lower than we had projected.

Another reason that premium rates will rise is the way the industry has been selling to associations and employer-employee groups. Companies are offering discounts that are difficult to justify actuarially, and are giving underwriting concessions by guaranteeing to issue sizeable benefits regardless of physical health.

Most companies are having some difficulty with their California experience. Monarch's first response has been to tighten underwriting, but perhaps the ultimate response will be to have premium rates which are commensurate with the risk in California. This could lead some day to other geographical variations in our rate structure.

Clearly our industry is going through a time when profit margins are being squeezed, and morbidity seems to be the main culprit. However, I don't see companies overreacting, as some have done in the past. Most companies seem to be carefully analyzing their own experience. In these tough times, careful analysis and thoughtful response are absolutely necessary to be confident that future profit margins will be more reasonable than they are today.

We have saved the best for last. It's Dick Mucci's job to lead us out of this wilderness. Dick is Vice President and Chief Actuary at Paul Revere. In that capacity he is responsible for all the actuarial functions at Revere for life insurance and annuities as well as the health insurance line of business.

MR. RICHARD L. MUCCI: The early returns are in from 1988 and it appears that the profit margins in the non-can individual disability income industry are continuing to decline. Many of us thought that 1987 would prove to be a turning point with 1988 a little better in overall profitability. Unfortunately, we were wrong! Although field compensation and expenses are part of the profit margin problem, morbidity is the major driver of profitability and the trends we've seen over the last several years. In 1988, there were increases in loss ratios across the board and for some companies rather dramatic changes.

Increasing claim costs are an industry problem and appear in many different segments of our inforce blocks of business. There are worsening trends in both the incidence of claim and the duration of disabilities. However, there is no smoking gun! There is no particular problem that one can point to as the single most significant driver of these claim cost changes.

I will review some specific problem areas which are affecting the industry experience. I discussed many of these issues at last year's Paul Revere Disability Income Reinsurance Seminar. The physician and dentist blocks of business have experience-increased claim costs due to the economic, psychological and competitive factors impacting these professions. Some physicians or dentists, who cannot adjust to the changing environment or manage this stress, have chosen a partial or total disability as a lifestyle alternative.

Shorter elimination periods usually display poorer claim costs when antiselection or overinsurance is more prevalent in the marketplace. In the early to mid 1970s, it was the 7-day and 15-day elimination periods, and now we're experiencing problems with the 30-60 day elimination periods. Many companies are experiencing 30-day loss ratios 20-30% higher than 90-day earned premium (EP) loss ratios.

It is also a fact that the disability income industry is realizing lower profitability on female business compared to their male counterparts. Claims costs for females can be 2-4 times greater than males. We are currently at a unisex pricing basis, so companies need to monitor their mix of female business and adjust their prices. This problem will be of increasing importance as more females enter the disability market.

Due to intense competition and antiselection, the first year or two in a block of new business actually yields higher claims costs than the third or fourth policy year. The degree of this antiselection varies by business segment and from company to company. Obviously, risk selection in both field and home office is extremely important in controlling this deterioration and maintaining a satisfactory level of profit. The high indemnities and substandard business are other areas where competition may inhibit proper underwriting, foster antiselection and produce unfavorable morbidity experience.

In the individual DI business, mental and nervous claims make up a large and growing portion of claim costs and unlike group insurance, full coverage is extended to these types of disabilities. In some segments, this type of claim is increasing and, as you know, it is probably the most difficult claim to handle and has lower recovery rates than average. Companies need to monitor this situation to adjust their underwriting practices and perhaps their product design in the future. Many of these claims are caused by substance abuse. Blood testing will help in detecting chemical dependency. Our industry also needs to develop more effective rehabilitation techniques for our disabled policyholders who have this problem.

The residual claim is very difficult to administer. Our claim examiners are hamstrung in their ability to properly assess predisability and current income based on sound, complete, and accurate financial data. The determination of the claim amount to pay is very complex. It is also true that residual disabilities are not behaving as originally planned when this benefit was designed in the early 1970s. Residual claims seem to extend disabilities and, in fact, recovery rates of those on residual disabilities might be lower than comparable total disability claims. The offsetting factor for our industry has been the low incidence of these claims but we can't count on that in the future.

The industry is experiencing significant claims problems in California. These problems are so serious that my company has taken enhanced special actions to control the high level of claim costs. I will speak in more detail on this in a moment.

The AIDS epidemic has not seriously affected the disability business yet. There has been a limited amount of claims and companies have taken some preventive measures in blood testing and other underwriting procedures. The blood testing limits are still too high. Although underwriting procedures will improve, our blocks of inforce are at risk to the effects of this epidemic. With improvements in medical science, AIDS claims will be a longer duration, and perhaps, simply being identified with the AIDS virus may constitute a disabling condition in itself. The full potential of AIDS on financial results will not be realized until five or ten years down the road. Our valuation actuaries need to seriously consider the possibility of reserve strengthening on our existing inforce business to reflect the impact of this epidemic.

Although, as I mentioned earlier, there appears to be no smoking gun in claim experience trends, I believe there are some common denominators which are driving this overall morbidity deterioration. I believe the principal markets in which we do most of the individual DI selling are oversaturated. This results in a replacement sale market with continual churning of the business. The early to mid-1980s was a period of intense competition in these saturated markets. This caused companies to relax the field and home office underwriting process in order to sell business and compete. Product design was continually liberalized with claim control features reduced or eliminated. Competition was reduced to examining phrases and words in contracts which misdirected the focus from selling need to selling the most lucrative and liberal benefit design possible.

Before I offer some ideas on where the industry is headed, I would like to dig in a little deeper into the California situation to which I alluded earlier. California has had claim problems periodically over the years but recently it has been extremely poor. At Paul Revere and many other companies the California loss ratios are about double the rest of the country. This is an industry problem impacting all companies. This problem is both an incidence of claim and duration of disability issue and permeates all segments of the business. When we have examined this experience at Paul Revere we have noted that there is no one particular cell that stands out more than others. All occupation classes, elimination periods and products, issue years, markets, etc., display unsatisfactory claim costs.

Increased prices could help but it's not the answer. We cannot double prices in California and still have a viable product to offer the consumer. At Paul Revere we have always had a special underwriting program in California because of the legal and claims environment. Over the last several months we have taken steps to enhance and reinvigorate this program. Our primary emphasis has been in the area of selection not only of the applicants for insurance, but of the producers with whom we do business.

We have placed heavy emphasis on producer quality. We have developed statistical measures of quality and coupled with the feedback of our field personnel, we hope to manage producer quality in an effective way. We have renewed the emphasis on an accurate and complete application. The amount of nondisclosure and half truths on California applications is very disturbing and something has to be done about it. We have encouraged more complete, accurate, and timely financial data as well to help us properly assess the amount of insurance to issue. It is truly astounding that the amount of California claims with income at claim time is quite a bit lower than that disclosed at underwriting time. In these three areas, that is producer quality, application completion and financial data, I believe the industry has gradually lowered its standards in the California marketplace.

We are writing to more attending physicians for their statements to try to uncover undisclosed medical history. The legal environment in California makes it difficult to rescind a policy for nondisclosure of medical information if a doctor is identified in the application and we do not pursue that information. This is another reason to be more aggressive in this area.

Substance abuse and AIDS is a major issue and our testing limits need to be lowered. We see increased value for doing field inspection reports face to face with the applicant especially for the large amounts of indemnity. We believe this will provide additional information that will help screen and underwrite prospective insured.

These are some of the major elements of our program, and it's too early to see the impact of these changes. However, it is clear that we cannot continue to subsidize California at current claim levels. Constant monitoring and adjustments are necessary in order to offer individual disability products in this marketplace.

When we look into the future to try to assess how the industry will respond to these morbidity trends, I would categorize responses into the following areas: marketing strategies, distribution, pricing, product design, underwriting, and claims administration. In the area of marketing strategies, we first need to manage the large physician and dentist markets. This is a replacement market with lower than desired profit margins. We need to carefully consider our growth strategies in this area while improving profitability. I see companies putting more emphasis on developing new markets for individual disability income. Many of these so-called new markets aren't new markets at all but markets that we have not penetrated much in the past. These would include small business and business owners, corporate executives, and perhaps segments of low-to middle-income risks as well.

These new markets may offer an opportunity to sell disability income at a more reasonable price with less liberal products and less costly distribution. Our product design needs to be tailored to these new markets to offer benefits which meet the need at a reasonable price. Products that we have sold to professional groups, especially physicians and dentists, are not appropriate in these markets. For one thing, they may be too costly.

I think the industry will be looking at lower cost product alternatives with restrictive claims control language. By offering a product which meets the basic disability needs without some of

the bells and whistles, we perhaps could provide a more attractively priced product to consumers with better claims control and appropriate profit margins.

In the area of distribution, companies will be redirecting their distribution focus to be consistent with new marketing strategies. Many of our producers are tied to certain markets and to really penetrate new markets a new type of producer needs to be reached. These producers could come from existing career organizations, casualty insurance brokers, financial planners or through third party endorsements. One thing is sure, we need to pay our distributors for quality of business as well as production. The disability industry pays significant amounts of premium revenue for field compensation. We should consider spending some of this money to make sure that we receive profitable business as well as good production growth. Rewarding persistency and perhaps even claims performance may be a critical part of this strategy.

Coupled with this compensation direction would be improved training and focus on the use of proper field underwriting. The producer is critical to the process of underwriting disability income. If the job isn't done out in the field, complete and appropriate underwriting cannot happen.

In the pricing of our products, I see continued price increases, given the current markets and products that we offer. Companies have increased prices over the last couple of years and I see that continuing over at least the next two years also. Various discount strategies have been employed but I see discounting focused more on areas which are financially justified. For example, Paul Revere has recently offered a discount for supplying increased financial data at underwriting time. Companies have coupled some multilife discounts to reductions in field commissions in order to justify these discounts. These financially justified discounting strategies will continue to grow.

I believe the industry will reconsider its decision to be on a unisex pricing basis. We may already be past the point of no return but a few companies have experimented with returning to gender-based pricing and this may lead others to try it. There is a fundamental difference in claim costs between males and females and this needs to be reflected in price either in sex-distinct rates or in overall increases in price as female risks make up a larger segment of new business.

Our individual DI products contain many guarantees. We guarantee renewability, price, indemnities, benefit periods, cost-of-living increases, and options to add more coverage, to name a few. We are dealing with large benefit amounts which are driven by subjective claim situations and it may be extremely difficult to project experience trends for many years into the future and offer these guarantees with reasonable risk margins. We may need to have some flexibility in adjusting benefits and price as unanticipated new claim trends emerge.

When we look at the product design of the future, one recent phenomenon has been the growing acceptance of pregnancy exclusions as part of our contracts. The industry eliminated many of these exclusions a few years ago which resulted in many contracts being sold as maternity coverage. The result was more pregnancy claims. Normal pregnancy exclusions will help some of this; however, many of the pregnancy claims are due to complications. Much has to do with how the product is marketed versus contractual language per se. Retraining of the field force may be necessary.

After years of liberalization, I see the industry moving towards more claims control language in their contracts, perhaps offering lower cost alternatives with more restrictive definitions and provisions. There will be a tightening up of residual disability benefits in these alternatives as well as controlling lifetime and cost-of-living features.

I think our industry needs to return to the basics in the underwriting function. Individual DI can suffer from significant antiselection more so than disability protection sold on a group basis. It starts with good field underwriting. An accurate and complete application with appropriate financial data is essential. We will see increased use of blood testing and I predict that in two or three years we will be testing almost everyone.

When we look at claims administration, we see a very sophisticated and important function in the disability income business. The claims are for such large amounts and can be so complicated that we will see more and more specialization in the claims administration area. For example, this

specialization would include insurers providing rehabilitation opportunities for disabled policy-holders, and developing special claim administrative units to deal with fraud. There are also other areas of specialization; for example, helping claimants apply for social security, dealing with partial disability claims, or even specialization in the nature of the claim like psychological or substance abuse situations. I see the claim administrative function becoming more sophisticated over the next few years and requiring more resources and automated support.

To sum up, our industry went through a period of significant competitiveness in the early to mid-1980s which resulted in deterioration of morbidity costs. Changes are taking place in our industry. Some companies may choose to de-emphasize or get out of the business. Others will make significant changes to marketing and product strategies and will adjust. I believe we'll see significant changes in our industry over the next few years to help us return to a profitable, viable and growing product line.

MR. BARRY T. ALLEN: I'm involved in the group LTD line at Phoenix. While the total profit picture is not the same as individual disability, the problem with California is clearly the same in my company, and it's clearly one of our biggest problems. It is very difficult to find a particular pocket of California that is better or worse than the others.

MR. MUCCI: At Paul Revere we have not yet seen a group LTD problem in California; I have not heard about that from other companies.

MR. S. MICHAEL MCLAUGHLIN: I didn't hear a lot of comparison of how results may vary by occupation class. Can any of the panelists tell us a little more about that?

MR. MEILANDER: If what you're asking is related to change in experience between the early 1980s, and the late 1980s, at our company the changes all occurred in the top classes. The bottom three classes are not a problem for us at this point.

MR. MUCCI: I would concur with that, but the lower classes are a much smaller percentage of the total inforce block, so they are not a major driver of our financial results. The experience on the lower classes has bounced around, but had no clear trend. Some of the problems exist in all classes, but the lower classes do not have the same type of disearnable trend as the top classes, nor are they a major driver of financial results.

MR. COX: I would also concur with that. Obviously, we made corrections in the lower classes in the mid- and late-1970s. We started to design products that would better fit those classes, but the changes in the 1980s have been in the top three classes.

MR. SCARLETT: The experience at Monarch may be a little bit different from the rest of the companies. We did find some deterioration in the morbidity experience in the lower occupational classes. In fact, we decided to drop the very lowest occupational class in the new portfolio that was just announced in 1988. We now only have four occupational classes, whereas we used to have five.

MR. STEPHEN B. GWIN: Talking about the unisex rates, Bob, you made comment about the Norris case. It is my understanding that Norris doesn't apply to individual coverages; is that true? Also, Pennsylvania is a state where they are beginning to talk about unisex rates being required. Could you comment about that?

MR. MEILANDER: Yes, you're right, the Norris decision did not require the insurance companies to do anything, and it did not require any special action in the personal market. What we tried to do at that time, and this was prior to 1985, was have two parallel series of contracts. We had one that was for all individual sales, and one that was solely for businesses. We went unisex on the one for business and also covered normal pregnancy. On the individual series, we tried to stay sex-distinct. We found that the field force was pretty artful in handling that situation, and about 60% of the sex-neutral stuff turned out to be female. Therefore, we made the conclusion that if we thought we had to be sex neutral to be in the business market, the only way to do it was across the board.

MR. COX: We did it strictly because our clients, the business itself, would be subject to governmental (Norris) regulations.

MR. GWIN: Dave, you made a comment about the percentage of claims during the first two years, during the contestable period. Dick, you made comments about the fraud situation. What are companies doing in response to these very early claims and the likelihood that a lot of them are the result of fraud?

MR. SCARLETT: Are you again talking about pregnancy claims?

MR. GWIN: I thought Dick was talking more general than that, but pregnancy claims would be part of it.

MR. MUCCI: I think there are a couple topics here. One is regarding claims that occur during the contestable period, and the other is fraudulent claims. There is some overlap, but the contestable claims are a much bigger category. The contestable claims may not necessarily be fraudulent, but there could be some misrepresentations on the application, especially in a replacement situation. For example, the other coverage may not be replaced, etc. Now we have many programs that try to deal with that situation. One program is to follow up on replacement situations and make sure the other coverage is replaced. Every contestable claim gets special treatment in the claims administration area. One thing we do is get a field person out there very quickly to the claimant. We have specially assigned resources in our claim area to handle fraudulent claims. In the last year or two, we have developed a special unit to deal with outright fraud, where there might be a ring of people trying to defraud the insurance company, gross misrepresentation on the application, an accumulation of coverages from other companies, etc. We think there could be as much as 5% of our total claim cost that is paid in these types of gross abuse situations.

MR. GWIN: So the distinction that you are making is that misrepresentation may be present when possibly one piece of information or a limited amount of information is left off the application; whereas fraud abuse is much broader than that with the intent to deceive.

MR. MUCCI: Yes, when I said fraud, I meant very serious illegal attempts to defraud insurance companies. These are criminal violations and not simply misrepresentations.

MR. SCARLETT: Let me comment a little more on that. Our response to significant antiselection against the company has been just a lot tighter underwriting. We are getting a lot smarter at eliminating the AIDS risk; blood testing clearly helps a lot. With regard to antiselection on pregnancy claims, Monarch has changed its underwriting procedures on that. They are no longer covering normal pregnancies. In the top two occupational classes, normal pregnancies are covered after a ninety-day wait; at that point you are already getting into complications of the pregnancy anyway. We are refusing to underwrite if the applicant is currently pregnant. If there has been any prior history of pregnancy complications, we have been putting a 180-day wait on those policies. Monarch also has a fraud squad in the claims department; I think they are very effective in handling claims that seem to be fraudulent.

MR. COX: In addition to what Dave and Dick have said, we do all the same things but policy languages. Our new policy series that hit the streets in late 1988 has a fraud protection clause in it; it also has a time limit on certain defenses concerning when illness first manifests itself. You are going to have to have protection from this contractual language or you will have a very difficult claims problem if the applications are not completed correctly.

MR. LEWIS M. BORGENICHT: I just have one question on business overhead expense disability insurance. We are thinking of using wording which mentions that premiums would be tax-deductible whereas the benefits would be taxable income. Does anyone see a problem down the road with the IRS attacking that kind of tax language in a marketing manual? This is marketing material and it has been suggested that we might be a little less definitive about taxes.

MR. MUCCI: It's hard to answer that type of question in general. I think you need more specialized advice.

MR. FRANCOIS GENEST: Mr. Mucci, you talked about the importance of having a completed application in the selection process. Would you please give us details on what your criteria are for a completed application, and how you plan on enforcing that with your field force?

MR. MUCCI: A completed application, I think, would include an accurate response to every medical question. For example, in California we have noticed that a third of the applications leave the question blank on whether or not there is an attending physician or family doctor. We have gone back directly to the policyholder and asked that question again, and then we write to the physician. We found that a substantial number of these cases come back with a medical history. That is an example of questions being left unanswered, hiding possible medical problems, and the type of follow-up you could do directly with the policyholder. More often than not, unfortunately, the broker or producer fills out the application after having the insured sign a blank form. That practice has to stop. The application has to be filled out by the applicant, with questions answered accurately. So there are various programs, I think, and following up with the policyholder is a very good one. Applicants in general tend to be very honest with the insurance company when confronted by the insurance company on particular questions.

MR. GENEST: How are you going to enforce it to make sure the agents complete the application according to your standards?

MR. MUCCI: I think you enforce it with the producer, and you enforce it with the policyholder. You send the application back to the field if it is not properly completed. We follow up with the policyholder on specific questions if we feel the answers are unsatisfactory.