

# RECORD OF SOCIETY OF ACTUARIES 1993 VOL. 19 NO. 1A

## INDIVIDUAL DISABILITY INCOME (DI)

Moderator: DAVID E. SCARLETT  
Panelists: CHARLES N. BIETER  
DAVID W. LIBBEY  
MARK S. SELIBER  
Recorder: DAVID E. SCARLETT

- Will profitability return?
- Smaller industry (fewer players)
- Underwriting and claim problems

MR. DAVID E. SCARLETT: I'm going to briefly introduce your panel first, then I'll more formally introduce each speaker right before he speaks. Mark Seliber is from All America Financial and will share with us some of his research on the 1992 financial results in our industry. Nick Bieter is from Provident Life and Accident; Dave Libbey is from Paul Revere; and I'm Dave Scarlett with Milliman & Robertson in the Minneapolis office.

The first speaker is Mark Seliber who is associate actuary at All America Financial, formerly known as State Mutual, in Worcester, Massachusetts. Mark is the actuary responsible for product development, pricing and reserving in the disability line of business.

MR. MARK S. SELIBER: I am presenting the combined 1992 statutory financial results of 22 of the top DI writers. These results should be very close to the final results that Duane Kidwell and I will discuss in the May 1993 issue of the *Disability Newsletter*.

Here's a quick outline of the four sections of my presentation, each of which has a table to display the results:

1. Overall 1992 results versus 1991 results, looking at the individual financial components and overall company trends.
2. Overall trends for the DI industry over the last five years, 1988-92.
3. Results of nine of the top DI companies over the last 13 years, 1980-92.
4. Reserves as a percentage of premium and of claims over the last four years, 1989-92.

### SECTION 1 – OVERALL 1992 RESULTS VERSUS 1991 RESULTS

I'm sure the question foremost on everyone's mind is: Did the DI industry improve its financial results in 1992? Unfortunately, the answer is no. As Table 1 indicates, the total loss, after dividends and before federal income tax (FIT) increased from \$228.8 million (8.7% of earned premium) to \$290.2 million (10.3% of earned premium), a hefty \$61.4 million, or 27% increase in statutory operating loss. As we walk through the individual components, we'll see that an increase in the incurred loss ratio is the sole culprit.

RECORD, VOLUME 19

TABLE 1  
22 Company Disability Income Experience – 1991 versus 1992

All Figures Are Millions of Dollars			
Item	1991	1992	Change
Earned Premium	\$2,621.9	\$2,820.4	\$198.5
Premium Growth	7.5%	7.6%	0.1%
Gain/(Loss) After Dividends	(\$228.8)	(\$290.2)	(\$61.4)
All Figures Are Percentage of Premium Earned			
Item	1991	1992	Change
Investment Income	27.3%	29.8%	2.5%
Incurred Claims	71.0	77.4	6.4
Reserve Increases	12.3	12.2	-0.1
Benefits & Reserve Increases	83.3	89.6	6.3
Commissions	23.1	21.9	-1.2
Expenses	25.4	24.5	-0.9
Taxes, Licenses, Fees	3.3	3.3	0.0
Commissions-Expense-Tax	51.8	49.7	-2.1
Margin Before Dividends	-7.8	-9.5	-1.7
Dividends	0.9	0.8	-0.1
Margin After Dividends	-8.7	-10.3	-1.6
FIT	-1.6	-1.6	0.0
Margin After Dividends & FIT	-7.1	-8.7	-1.6

First of all, earned premium increased by 7.6%, from \$2.62 to \$2.82 billion. Next, investment income improved as a percentage of earned premium from 27.3% to 29.8%. This result might be considered a little surprising, since new-money rates were decreasing significantly in 1992. I calculated net investment income as a percentage of mean reserves and came out with an identical yield in 1991 and 1992. I'm aware of one company that changed its method of allocating investment income: the result was a \$12.5 million increase in investment income in the DI line at that company.

Next, incurred claims increased as a percentage of earned premium by a whopping 6.4% from 71.0% to 77.4%, while active life reserve increases decreased slightly from 12.3% to 12.2%. Breaking down the incurred claims numbers into paid claims and claim reserve increase yields some interesting findings. The paid claims total for 1992 is \$1.13 billion, actually down slightly from 1991. The claim reserve increase total for 1992 is \$1.05 billion, up about 50% from \$700 million in 1991. This tends to confirm what I think most of us were finding in 1992 – that numbers of new claims and total claims were down or flat in 1992, while claim durations were definitely up. Several companies significantly strengthened their claim reserves in 1992. While the big jump in the incurred claim ratio is probably the worst news in this picture, perhaps the best news is that overall our claim reserves are more realistic, and we will be well-positioned if and when both the economy improves and claim durations drop back down closer to historical results.

## INDIVIDUAL DISABILITY INCOME (DI)

For the next three items, commissions improved from 23.1% to 21.9% of earned premium. Expenses improved from 25.4% to 24.5% and taxes, licenses and fees remained flat at 3.3%. The main cause for the drop in commissions and expenses is probably the low (zero to single-digit) growth in sales in the last four to five years.

Finally, the margin before dividends deteriorated from a loss of 7.8% of earned premium in 1991 to 9.5% in 1992. The margin after dividends went from 8.7% to 10.3%, and the loss after dividends and FIT jumped from 7.1% to 8.7%.

I looked at individual company results and found the following:

1. Eleven companies had an improved bottom line in 1992, while nine companies' bottom line was worse.
2. Five companies reported a statutory gain after dividends in 1992, up from four companies in 1991.
3. Three companies had very large deteriorations in their bottom lines, mainly because of great increases in incurred claims. The results of these three companies went a long way in driving the overall DI results down in 1992.

### **SECTION 2 – OVERALL DI INDUSTRY TRENDS, 1988-92**

Table 2 shows the overall DI experience from 1988-92 and identifies some trends for 21 companies. First the total earned premium has increased 54.6% in just four years, from \$1.8 to \$2.82 billion. Still, the rate of premium growth has slowed dramatically from 23.2% in 1988, to the mid-teens in 1989-90 and to only 7.5% in the last two years. Obviously, the flattening of sales alluded to before is the main cause of this slowdown in premium growth.

The bottom line results for the last five years have looked like a yo-yo, but unfortunately they are all well below sea level. Starting with a \$216 million loss in 1988, we improved in 1989 and 1991 but suffered increasing losses in 1990 and 1992, which is our worst year to date. Since 1993 is an odd-numbered year, there's some hope for improvement.

Investment income has improved steadily over the last five years, from 23.7% of earned premium in 1988 to 29.8% in 1992. I looked separately at the top nine companies and the other companies and found that most of the improvement in investment income came from the other companies. These are mainly large mutual companies that may have changed their methods of allocating investment income between lines of business, as was the case in 1992 with the company I mentioned before.

Incurred claims have increased dramatically, from 62.6% in 1988 to 77.4% in 1992; the increase has accelerated in the last three years, both for the larger and smaller DI companies.

Commissions and expenses have decreased steadily by a total of 4% each over the last five years. Again, the main reason seems to be a slowdown in the growth of sales.

RECORD, VOLUME 19

Dividends are becoming less prevalent in DI, decreasing from 2.3% of premium in 1988 to 0.8% in 1992. FIT is an interesting item. The effective tax credit has been cut in half in 1991 and 1992, despite similar or higher operating losses. The infamous deferred acquisition cost (DAC) Tax is probably a big reason why.

TABLE 2  
Overall DI Experience – 1988 through 1992  
(Dollar Figures are in Millions  
Percentages are Percentage of Premium Earned)

Item	1988	1989	1990	1991	1992	Change 1988-92
Earned Premium	\$1,824.40	\$2,087.20	\$2,439.80	\$2,621.90	\$2,820.40	\$996
Premium Growth	23.2%	14.4%	16.9%	7.5%	7.6%	54.6%
Gain/(Loss) After Dividends	(\$216.40)	(\$185.00)	(\$261.00)	(\$228.80)	(\$290.20)	(\$73.80)
Investment Income	23.7%	25.1%	24.6%	27.3%	29.8%	6.1%
Incurred Claims	62.6	62.4	65.8	71.0	77.4	14.8
Reserve Increases	12.8	12.4	14.1	12.3	12.2	-0.6
Benefits & Reserve Increases	75.3	74.8	79.9	83.3	89.6	14.3
Commissions	26.0	25.2	24.6	23.1	21.9	-4.1
Expenses	28.5	29.0	26.3	25.4	24.5	-4.0
Taxes, Licenses, Fees	3.5	3.5	3.3	3.3	3.3	-0.2
Commissions- Expense-Tax	58.0	57.6	54.2	51.8	49.7	-8.3
Margin Before Dividends	-9.6	-7.3	-9.5	-7.8	-9.5	0.1
Dividends	2.3	1.6	1.2	0.9	0.8	-1.5
Margin After Dividends	-11.9	-8.9	-10.7	-8.7	-10.3	1.6
FIT	-3.8	-2.7	-2.7	-1.6	-1.6	2.2
Margin After Dividends & FIT	-8.1	-6.2	-8.0	-7.1	-8.7	-0.6

**SECTION 3 – NINE COMPANY EXPERIENCE, 1980-92**

As many of you know, Duane Kidwell has been tracking the experience of nine of the largest DI companies for many years for the *Disability Newsletter*. Since I've hooked

## INDIVIDUAL DISABILITY INCOME (DI)

up with Duane, we've continued this analysis, and Table 3 shows the results through 1992 (for space and readability, you'll note that I've displayed every three years from 1980-89, then each year since then). I've also shown the average annual (un-weighted) percentages and the change in percentages over this 12-year period.

Earned premium has increased by four-and-a-half times in 12 years, an annualized growth of 15.2%. However, the growth in overall premium has slowed considerably in the last 2 years (only 8.9% in 1992).

Net investment income again has increased dramatically, from 20.9% in 1980 to 29.9% in 1992.

Incurred claims have close to doubled over the 12 years, from 43.5% to 77.3%. There has been a small, favorable offsetting by the 5.4% drop in policy reserve increase, which results from companies shifting to two year preliminary term and the Commissioners Individual Disability Table (CIDA).

Commissions, expenses and taxes combined jumped up from 48.2% in 1980 to as high as 57.8% in 1986, during the time of rapid sales growth, and have come back down to 48.9% in 1992, almost exactly where they started.

Putting it all together, we started with a 12.1% positive margin in 1980, then smaller gains through 1985. The nine companies moved into a loss position in 1986, and the losses have steadily increased in the last six years. My analysis shows that the smaller companies had percentage losses four to five times higher than those of the nine companies in 1989-90, but have improved to only 80% higher than the nine companies in 1992!

### **SECTION 4 – ANALYSIS OF DI RESERVES, 1989-92**

In the last section of my presentation, I discuss the various DI reserves as percentages of premiums, incurred claims and paid claims. Those of you who read the *Disability Newsletter* may recall that in the spring 1992 issue, I submitted a report on 1989-91 reserves. My main purpose was to identify average overall reserve levels and recent trends in these reserves. Table 4 updates this study through 1992 results for 19 companies.

First, unearned premium reserves have remained at about a steady 9.5% of premiums over the last three years. Additional reserves have increased about 5% a year each of the last two years. The recent low growth in sales is a factor here, as a higher than usual percentage of business is beyond the two year preliminary term period.

As I mentioned before, there was a sizable jump in the claim reserves and liabilities, from \$4.65 billion in 1991 to \$5.64 billion in 1992, a 21% leap. Claim reserves as a percentage of premium increased from 193.8% to 215.4%.

Total reserves as a percentage of premium increased by 24% in 1992 and another 27% in 1993 (from 308.2% in 1991 to 335.2% in 1992).

TABLE 3

Nine Companies Experience

	1980	1983	1986	1989	1990	1991	1992	Average 1980-92	Change 1980-92
Earned Premium (\$ Millions)	\$395.20	\$611.40	\$962.90	\$1,503.60	\$1,762.50	\$1,948.00	\$2,160.80	\$1,103.60	\$1,765.60
Premium Growth	NA	15.9%	15.2%	15.3%	17.2%	12.6%	8.9%	14.1%	446.8%
								<b>Avg Inc</b>	15.2%
Net Investment Income	20.9%	21.8%	23.6%	27.7%	26.9%	28.2%	29.9%	24.6%	9.0%
Incurred Claims	43.5	46.9	56.5	63.7	64.7	69.5	77.3	56.4	33.8
Reserve Increases	17.1	12.9	11.4	11.9	12.4	12.1	11.7	13.0	-5.4
Claims & Reserve Increases	60.6	59.8	67.9	75.6	77.1	81.6	89.0	69.4	28.4
Commissions	22.2	24.2	26.4	25.0	25.0	23.6	22.0	24.6	-0.2
Expenses	22.7	26.6	27.8	27.5	25.9	25.0	23.7	26.0	1.0
Tax, Licenses and Fees	3.3	3.4	3.6	3.4	3.3	3.2	3.2	3.4	-0.1
Commissions, Expenses and Taxes	48.2	54.2	57.8	55.8	54.3	51.7	48.9	54.0	0.7
Margin	12.1	7.8	-2.2	-3.7	-4.5	-5.1	-8.0	1.1	-20.1

**INDIVIDUAL DISABILITY INCOME (DI)**

**TABLE 4**  
Reserves as Percentages of Premium, 1989-92

Item	1989	1990	1991	1992
Earned Premium	\$1,922,295	\$2,240,044	\$2,399,524	\$2,618,898
Unearned Premium Reserves	\$198,384	\$211,156	\$219,717	\$250,747
% of Premium	10.3%	9.4%	9.2%	9.6%
Additional Reserves	\$1,888,497	\$2,226,052	\$2,524,139	\$2,884,371
% of Premium	98.2%	99.4%	105.2%	110.1%
Total Active Life Reserves	\$2,086,881	\$2,437,208	\$2,743,856	\$3,135,118
% of Premium	108.5%	108.8%	114.4%	119.7%
Claim Reserves & Liabilities	\$3,213,913	\$3,934,908	\$4,650,835	\$5,642,174
% of Premium	167.1%	175.7%	193.8%	215.4%
Total Reserves	\$5,300,794	\$6,372,116	\$7,394,691	\$8,777,292
% of Premium	275.7%	284.5%	308.2%	335.2%
Claim Reserves/ Incurred Claims	265.7%	272.0%	286.3%	288.1%
Claim Reserves/ Paid Claims	NA	542.2%	511.9%	583.6%

Claim reserves as a percentage of incurred claims increased very slightly in 1992, from 286.3% to 288.1%. Claim Reserves as a percentage of paid claims went up considerably, from 511.9% to 583.6%. This is a further indication of the lengthening of claim durations in 1992.

Again, this sizable increase in reserves, especially the claim reserves, is hurting our financials this year, but strengthening the overall DI industry picture.

**SUMMARY**

This concludes my quick analysis of the 1992 DI financial results as I have them now. In a sentence, overall results deteriorated because of sizable claim reserve increases resulting from longer claim durations. My distinguished colleagues on the panel will now expand upon how they see the trends in the DI business, the factors that have put us in such a large hole, and most important, our prospects for extricating ourselves from that hole.

Before I finish, I'd like to make a plea. As you might imagine, it takes a fair amount of time to put this information together, but our biggest hang-up is having to wait to

## RECORD, VOLUME 19

view many of the annual statements at the Massachusetts Division of Insurance at the end of March. What I'm proposing to do starting next year is to identify a contact person at each of the companies and have that person send or fax me the key results (Schedule H, Summary of Operations by Line, Exhibit 9, Schedule S) along with any adjustments or comments as early as the results are available (probably early or mid-February). This would give Duane and me more lead time to compile the results and enable us to follow up on any questions that may come up. So, I'll be in touch with you next year.

MR. SCARLETT: As I think Mark mentioned, his statistics will be published in the next issue of the *Disability Newsletter*.

Our next speaker is Nick Bieter who is vice president and actuary at Provident Life and Accident in Chattanooga, Tennessee. Nick is responsible for all actuarial matters relating to the individual DI line of business including product development, pricing and reserving.

MR. CHARLES N. BIETER: Let me begin by saying that I am cautiously optimistic about the future of the individual DI business, in spite of the last few years' financial results which have been poor for the industry and poor for my company as well. I'm optimistic in spite of companies that have found it necessary to drop out of the individual disability business and in spite of the decline in interest rates.

So why am I optimistic in the face of these problems? First, none of the major problems that I see have been dictated to us by regulation or by politics. Consider the dilemmas faced by some of our colleagues dealing with the individual medical insurance. Second, our market is not saturated. We have to move beyond the white-collar professions, but there are a lot of opportunities for growth. Consider our colleagues dealing with individual life insurance. Third, there is a real need for the type of product we sell. Government cannot afford to provide comprehensive disability benefits. We can and do provide a worthwhile service. Fourth, and most important, all of the major problems are under our control to solve.

So why am I only cautiously optimistic about the future of the individual DI business? We are in a very competitive industry in spite of the dominance of this market by relatively few companies. The past decade has proven the competitiveness of our industry in spite of companies that have come and gone from the scene. Also, we have a cyclical business. People commonly talk about the group health cycle; well, we have a cycle as well only ours is longer. The group health cycle is a function of medical costs while ours starts with the desire for growth on the part of existing DI companies, and entrance to the market by other companies. The desire for growth brought liberalizations in product language, premium, and underwriting. Eventually morbidity goes up and profitability goes down, companies leave the market, and others change the way they do business. A more conservative approach in product, premium, and underwriting leads to better profitability but lower sales. When the profitability is attractive and the potential for growth is large, the cycle begins again.

So where are we today in this cycle of individual DI? I think the answer for most companies is in the conservative phase of concentrating on profitability.

## INDIVIDUAL DISABILITY INCOME (DI)

Let's look at some of the particular problem areas we face today in the DI business. As I mentioned before, interest rates are down, which can have a dramatic impact on long-term profitability. A 1% decline in long-term interest rates can impact profit by 2% of premium, a substantial part of profit. Those companies that have been in the disability business for a long time face an interest-rate risk that goes far beyond the impact on new business profitability. Provident's total reserves on noncancelable and guaranteed renewable DI are more than \$1 billion, so even a 1% shift in the portfolio interest rate over time can dramatically effect profit. The second principal problem we face is a decline in claim-termination rates. My sense from talking to people from other companies is that none of the major companies has faced a rapid influx of new claims in the last few years. Instead the primary impact seems to come from reduced claim termination rates during the first 12-24 months of disability. Other problems facing our industry include:

- Mental, nervous, drug, and alcohol claims
- Geographical differences in morbidity
- AIDS
- Increased percentage of sales to women using unisex rates
- High income replacement ratios
- Lifetime benefit periods/short eliminations
- Problem agents/brokers.

That is a very long list of problems from someone who is basically optimistic about this line of business. But notice for new sales all of those problem areas can be addressed through product design, pricing, and underwriting. What will it take to deal with these problems? I suggest it takes three things. First is a commitment to the DI product line – a will to solve the problems and a willingness to commit the capital and people. Second is an experience database that has a sufficient claim history to provide credible results and sufficient flexibility to answer the hundreds of questions posed to the actuaries today. Third is good communication about what the problems are and what the solutions will be, communication within a company's home office, with its field force, and with its customers.

Let me go back now and address each of these problem areas. My comments are my personal opinion and do not necessarily reflect the opinions of others at Provident.

### **MENTAL, NERVOUS, DRUG, AND ALCOHOL CLAIMS**

Milliman & Robertson recently conducted a survey on mental, nervous, drug, and alcohol claims in addition to AIDS claims. Results are published in the March 1993 *Disability Newsletter*. According to that survey, roughly 20% of the claim impact comes from mental, nervous, drug, and alcohol claims. While it would be a mistake to pretend that claims of this type were not present ten years ago, we have certainly seen a major increase in the volume and financial impact. I attribute the increase partly to economics, in particular the recession's impact on professionals. Also, a mental, nervous, drug or alcohol condition does not have the same stigma it did ten years ago. I believe the industry must offer policies that restrict coverage for mental, nervous, drug, and alcohol claims so we can provide quality DI coverage at a reasonable premium. Restrictions can either be through a limitation in the number of payments or the total amount payable for mental, nervous, drug, and alcohol conditions or through restrictions on the own-occupation definition of disability.

Provident has made such coverage available in the marketplace. I am not aware of other companies that have offered such coverage.

#### **GEOGRAPHICAL DIFFERENCES IN MORBIDITY**

A few years ago it became common to charge more for DI policies in California and Florida than in the rest of the country. Those companies writing in Canada also use a different rate structure. I believe there are significant geographical differences in other areas of the U.S. as well. Business sold in Chattanooga, Tennessee, is not the same as business sold in New York City. It is not simply a matter of large cities versus medium size cities. Provident was not the first company to use area rating outside of California and Florida, but we have been making such a premium distinction for about one year. Group LTD carriers make rate distinctions by city or even by zip code.

#### **AIDS**

I mentioned the Milliman & Robertsons survey that covered AIDS. According to that survey, roughly 3% of claim liability involves AIDS. Not too many years ago, some people predicted doom and gloom for the DI business because of the AIDS epidemic. Well, 3% is important, but the catastrophe has not happened and will not happen so long as companies maintain strict underwriting controls, including blood tests. I am afraid we may get complacent about conditions like AIDS. The risk is far from over, particularly if there should be a partial cure for AIDS, which allows such patients to live an extended period of time without producing a real cure. We have also just begun to see the HIV + claims, people who cannot work at their occupation for regulatory reasons but who do not have AIDS yet. I believe we must keep our guard up about AIDS and other such conditions that may surprise us in the future.

#### **INCREASING PERCENTAGE OF SALES TO WOMEN**

It has long been established that women live longer than men but have higher medical costs. Every study on DI business that I've seen also shows that women have higher disability costs. Years ago, some companies said that women professionals would be a different type of disability risk. I believe we know now that this is not true. During the liberalizations of the 1980s, most companies changed to unisex rates and used the Norris decision as an explanation. But the Norris decision never dictated unisex rates to the insurance industry. This subject is fraught with legal land mines. Clearly, employers and perhaps their insurance companies face major discrimination issues if male and female employees do not have equal benefits for equal contributions. Most companies avoid the problem by using unisex rates in spite of the growing percentage of sales to women and the resulting lower profit. Some companies use purely sex-distinct rates and could face some legal questions.

#### **REPLACEMENT RATIOS AND HIGH MONTHLY INDEMNITIES**

I believe our industry has done a better job of physical underwriting than it has done on financial underwriting. In the growth period of the 1980s, companies increased their issue of participation limits especially by offering higher limits to those who have group LTD coverage. We began to write very large monthly indemnities at the same time as we added cost-of-living protection on claims and automatic increases before a claim. The result is naturally a decrease in the incentives for claimants to return to work at the same time that the white-collar professions have come under economic pressures. Many companies have since lowered the absolute amount of monthly indemnity that they will issue. Some companies have emphasized income verification

## INDIVIDUAL DISABILITY INCOME (DI)

so that they can be sure applicants are earning the incomes that appear on the applications. In my opinion, poor financial underwriting has hurt our industry and improved financial underwriting can have a dramatic beneficial effect.

### LIFETIME BENEFIT PERIODS

In the early 1980s, we provided lifetime sickness coverage for insureds who were disabled prior to age 50. Since that product did not seem to have a dramatic affect on the number of insureds becoming disabled or on their claim-termination rates, we naturally increased the age through which lifetime benefits were provided. This process reached its natural conclusion in the late 1980s with the introduction of lifetime sickness coverage through age 65. Just imagine the enticement to claim a disability just prior to your 65th birthday when you know you can receive a high monthly amount for the rest of your life. Well, I believe most companies have stopped issuing lifetime coverage through age 65, but there are similar pressures on other lifetime benefits as well. The industry's motives were good. Surely it makes sense to cover insureds against the risk of a devastating disability that does not allow the accumulation of retirement funds. But surely we can be more creative in the ways we design such protection.

### PROBLEM AGENTS AND BROKERS

Not all agents sell DI coverage the same way. Some sell the need for protection against a financially devastating disability and the advantages that certain policy provisions can have for the particular client. Other agents reverse this process and emphasize specific features. The most obvious example of the difference involves the sale of full pregnancy benefits to young women in the mid-1980s. I believe even an actuary could have sold unisex rates with full pregnancy coverage to a professional woman planning to have children. The point is this, even mutual company agents may not always balance the interest of the client and the interests of the insurance company in making DI sales. We as an industry need to underwrite the agent as carefully as we underwrite the insureds. Some companies have created sophisticated computer systems to track loss ratio information at the agent or broker level. The bigger challenge is to use such information wisely and to identify agents who may be problem agents before the problem claims appear.

### CONCLUSION

As the individual DI industry struggles with the problems I have outlined as well as others I have not mentioned, our underwriting, coverage and rating schemes will become more sophisticated and complex. There will be many more choices available, such as different limits on mental, nervous, drug, and alcohol claims. But unlike the 1980s, most of the choosing will be done by underwriters and marketers rather than by the agent and the insured. Tailoring the coverage and the premium to fit the characteristics of each case will determine the difference between profit and loss. The profitability of the business will return, but the greater complexity will make it more difficult for companies to enter the professional end of the DI business. Because of that complexity, I believe the number of companies in that part of the market will not expand from where it is today. The companies may change, but the concentration of business in a few companies will remain.

MR. SCARLETT: Our next speaker is Dave Libbey who is vice president and actuary at Paul Revere in Worcester, Massachusetts. Dave is responsible for valuation,

## RECORD, VOLUME 19

experience monitoring, forecasting, financial reporting and special projects in the individual disability line of business.

MR. DAVID W. LIBBEY: We have an opportunity to develop a perspective on the events of the last five years and to think about some strategies to employ. To those ends, I'm going to talk about:

- Recent experience at Paul Revere
- Profitability of the business
- Consolidation within the industry

Let me start with a few context-setting notes about Paul Revere and DI. We have been in the noncancelable DI business for nearly a century; we'll reach that mark in 1995. We are a niche company that markets DI through four distribution mechanisms:

- Career agency field force
- Traditional brokerage system
- DI reinsurance operation
- National accounts system

The last includes both Paul Revere label and private label arrangements with over 30 client companies and began in 1983 when we signed our first comarketing agreement with Prudential. We sell both personal and business coverages, and our market focus is the professional and white collar/executive groups. We have more than 500,000 policies and over \$0.5 billion of premium in force. Now, let's move on to some recent experience.

### EXPERIENCE

The term *experience* covers a lot of ground. Usually we mean morbidity when we use this word, and I shall begin there. All my comments will refer to what we perceive to be happening at The Paul Revere unless I state otherwise.

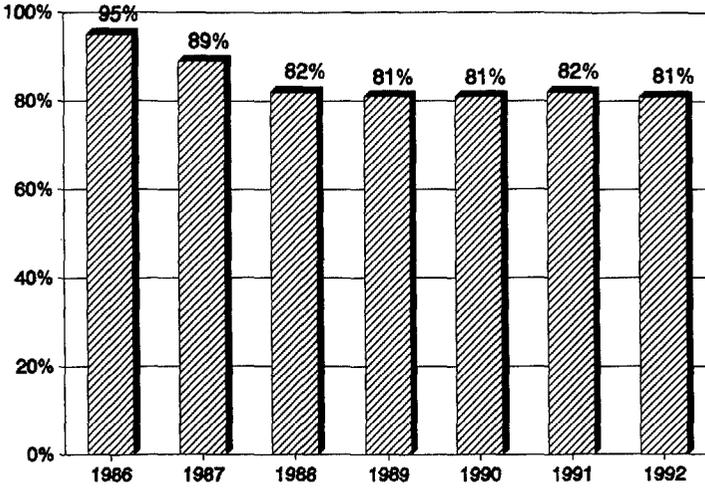
Our morbidity cost, relative to premium, continues to improve. Morbidity itself may be plateauing, but the components are shifting some. Let me start with some actual/expected (A/E) data. "Expected" refers to our own experience tables. We do all our analysis, pricing and valuation from these tables. Chart 1 shows U.S. male incidence data for 1986-92. After a long-term trend of steady improvement, you'll note that for the last four years our A/E ratio has been hovering around 81%. The 1992 data are immature as incurred but not reported (IBNR) claims continue to come in; the value I'm showing here is estimated. In general, within our block there are many variations on this pattern, but the curves are all similar . . . with one exception: With the removal of normal pregnancy coverage as a standard contract provision, female incidence A/Es have improved more rapidly than this male-only data show.

Recovery is the great equalizer! A/E experience for a comparable period seems to be continuing a long-term trend of deterioration. The statistics on Chart 2 are the average number of days on claim for claims in their first year. The 1991 data on Chart 2 are estimated, and I suspect somewhat conservative. You can see its increasing pattern. However, we believe that, as a result of the many pricing,

## INDIVIDUAL DISABILITY INCOME (DI)

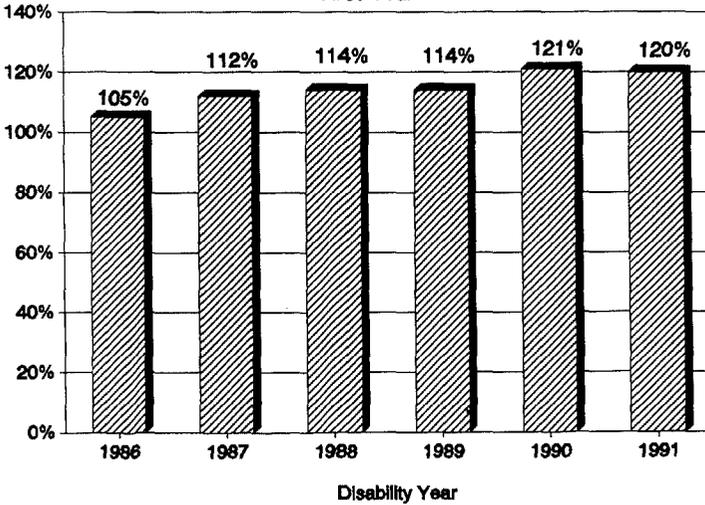
marketing, underwriting, claim management, and product actions taken starting in 1987, we have created the climate for tempering a 20-year rising trend.

CHART 1  
U.S. DI A/E Incidence – Male



1992 Estimated

CHART 2  
A/E Claim Duration – Male  
First Year

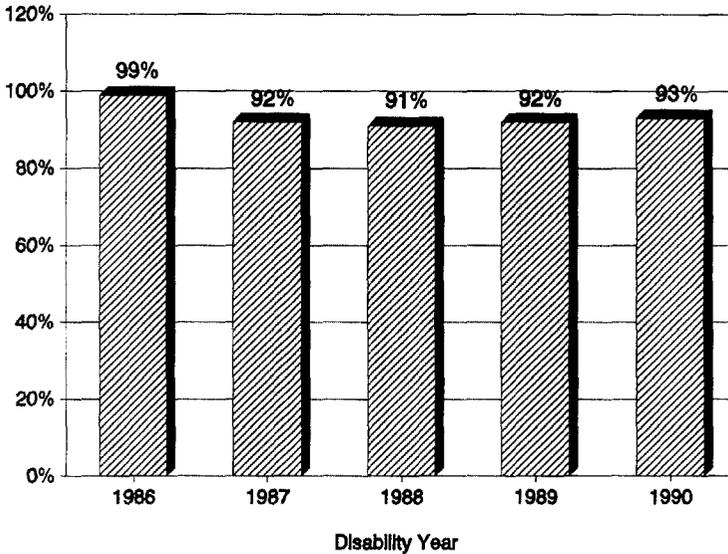


1991 Estimated

RECORD, VOLUME 19

Chart 3 shows similar A/E data for claims in their second year. These results have been fairly consistent from year to year. Claim reserve runoffs, both GAAP and statutory, have been improving, too. Over the past five years, runoffs have moved from a red to a black ink position.

CHART 3  
A/E Claim Duration – Male  
Second Year



A final piece of good news is indicated in Chart 4, which splits our claims by cause between mental, nervous, alcohol, and drug and all other for 1986, 1991 and 1992. The proportion of our mental, nervous, alcohol and drug claims was about 20% in both 1991 and 1992 following several years of steady increase. You can also see that we have a way to go to get back to the 14% level we experienced in 1986, but the potential trend reversal after several years of increase is good news. We believe that this result is a contributor to improved runoff experience.

It is always useful to keep track of the sources of good and poor experience. Not surprisingly, we find that business that reduces antiselection risk is a key source of positive results. Business sold in quasigroup situations heads the list in this respect.

Long earned premium business also tends to avoid the antiselection problems associated with the shorter earned premiums. Recently issued business, compared to that sold in the mid-1980s, is generating better results since it is the beneficiary of the experience improvement actions that have marked the last five to seven years. Business sold by experienced, larger volume producers is also on the list of better performers. Certain geographic areas generate poor results, although the plethora of steps taken to improve experience have helped. Business written with financial

## INDIVIDUAL DISABILITY INCOME (DI)

documentation yields better experience. While this may seem obvious, the incidence performance compared to business written without this documentation is surprising.

CHART 4  
Mental, Nervous, Alcohol, and Drug Morbidity Charges - % of Total U.S. Charges

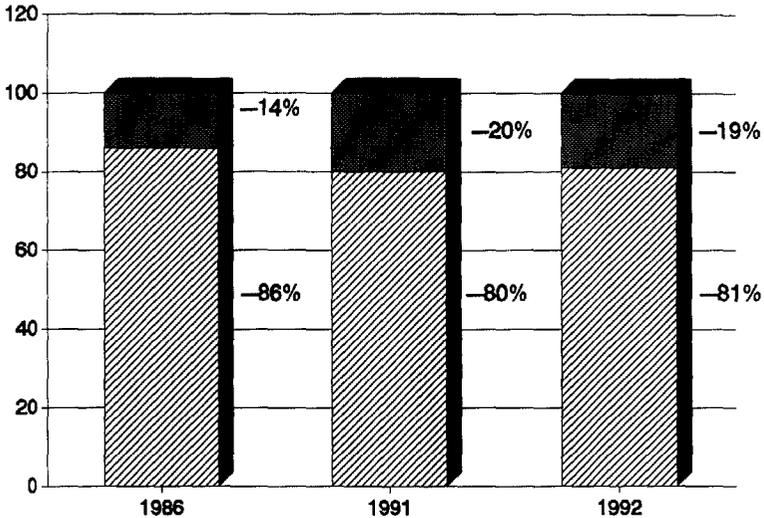


Chart 5 indicates one experience for early policy duration incidence on a block of recent issues. I've shown the experience for business written with documentation as standard at 100%, and you can see that the incidence rate on the undocumented business is 2.5 times the standard. Finally, field offices that manage their sales in a cooperative effort with the home office generate better results than those that don't.

Now let me show you some interest adjusted loss ratio experience based on statutory statement data. The interest adjusted loss ratio is a traditional loss ratio with the interest earned on reserves removed, and it provides a timely and useful measure of relative morbidity cost. Table 5 compares Paul Revere's results with the combined experience of 13 other companies we track. It is notable that our experience through 1991, as represented by this measure, is outperforming that of the 13 companies.

Policy persistency is another key profit driver. Persistency has been improving for several years – and still is. Chart 6 shows our first year total termination rates for each of the last seven years. These data includes all sources of policy termination: lapse, death, expiration and policy rewrite. Chart 7 shows the trend for our five year persistency rate. At this point, the significant experience analysis question is: How much better can it get? A year ago we thought further improvement was unlikely, but the trend continues. We are seeing better experience for the quasi-group business than for the individually underwritten block. Since we're seeing more of the former in recent sales, some of what you see here may be mix, rather than experience, driven.

Recent price increases and stronger underwriting throughout the industry are also contributing to the ongoing trend by reducing replacement activity.

CHART 5  
Income Documentation  
Early Duration Claim Rates

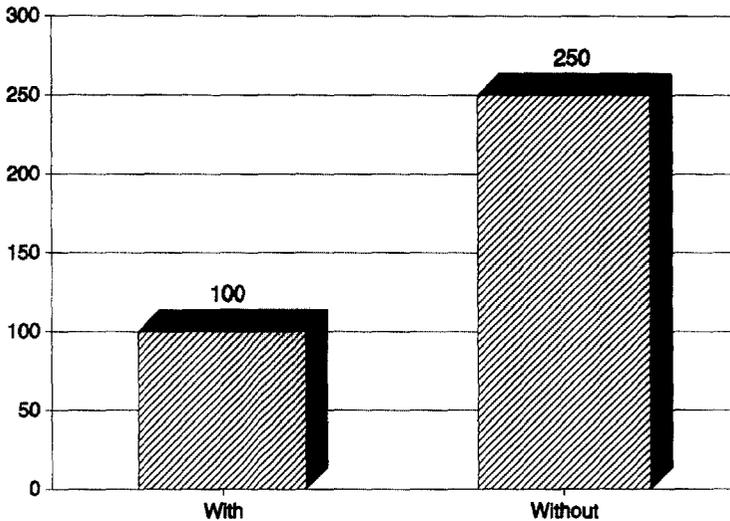


TABLE 5  
Interest Adjusted  
Loss Ratios

Year	Paul Revere	13 Companies
1987	58%	62%
1988	65	68
1989	63	65
1990	60	70
1991	61	71

Finally, I'd like to comment on an experience parameter that, until recently, has likely not been getting much attention. I'm talking about investment yield. A key driver for pricing and reserving, investment yield net of expenses and the cost of defaults, calls and risk charges, is declining as these costs increase. And, as gross yields decline, the net yield falls too. As companies implement strategies to respond to the NAIC risk-based capital rules and to the economic downturn, yield is being squeezed still further. Our yield rate, like that of many other companies, has been slowly dropping, moving away from what was once a material source of positive profit variance.

INDIVIDUAL DISABILITY INCOME (DI)

CHART 6  
Policy Persistency U.S. DI  
First-Year Total Termination Rates

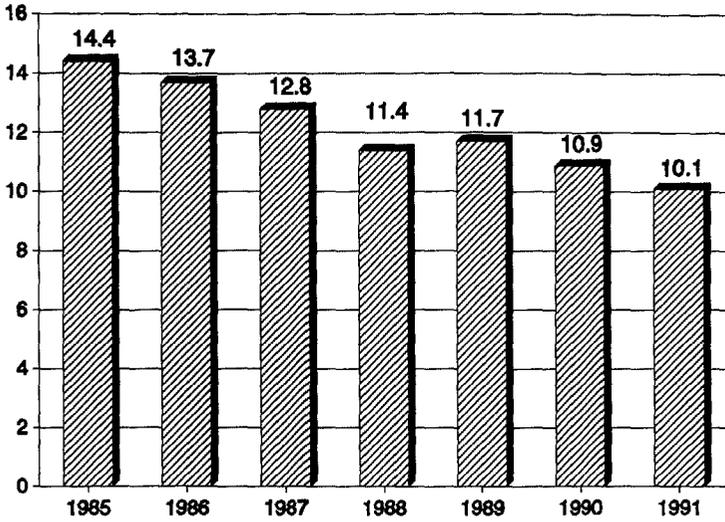
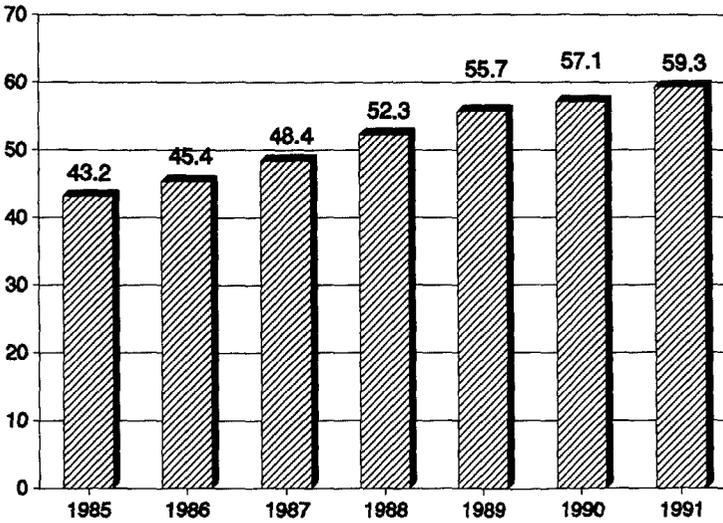


CHART 7  
Policy Persistency U.S. DI  
Five-Year Persistency Rates



## PROFITABILITY

The data that Mark showed us earlier does not paint a happy picture. Our companies are struggling to make money in the DI business. Few are succeeding. But it's important to dig behind the data. First, we should separate the cost of writing our new business from the profit/loss on the existing block. DI new business is very expensive to put on the books. To illustrate, we're likely to incur an after-tax statutory acquisition strain, net of the statutory preliminary term reserve adjustment, of about 60 cents for every dollar of premium sold. This figure includes only variable acquisition costs; required surplus and first-year maintenance costs are excluded. Using the LIMRA report of new business sold as a guideline, I estimate that the industry sold \$575 million of new premium in 1992. My rule of thumb suggests that we absorbed a \$350 million bill for acquisition strain. If we were able to reduce the industry's 1992 underwriting loss by this amount, we would have ended the year with a gain. We cannot, of course, eliminate acquisition strain entirely, but it is an area to review carefully for opportunities to improve our companies' positions.

Is the business on our books as profitable as we'd like it to be? For most of us, the answer is "Not likely!" Those of us who entered the 1980s flushed with the enthusiasm spawned by the successes of the 1970s ended the decade with a much more sober perspective. I became involved in the DI business in 1983. I was witness to a spiral of price decreases, product and underwriting liberalizations, and our industry's foray into the world of unisex pricing. Intensified competition removed systematic safeguards that had been built up over the past decade. At the same time, traditionally sound, attractive markets such as physicians and dentists were dealing with important issues that have had serious effects on our experience. During the 1980s our legal system added an unanticipated layer of expense to the cost of claims as the number and ultimate cost of lawsuits spiraled upward. One good news story from the mid-1980s was the move toward nonsmoker pricing. Another is that DI insurers have not stood idle! The realization that the experience gleaned from the 1960s and 1970s was an inadequate tool, even after applying significant judgmental adjustments, for pricing the business being sold in the 1980-90s has become more and more clear over the last five years. For some companies, premium rates remain inadequate, and as excess investment income has evaporated, those inadequacies are more obvious. But we have learned valuable lessons, and the industry has started responding to the emerging losses, some companies as early as 1987. But the statutory losses continue.

What can be done to turn the situation around? I believe that the answers lie in a two-pronged approach:

- Profitable new sales
- Improving profit in the in-force block

I want to speak to this in the context of Paul Revere's approach, one that has been underway for nearly a decade. Recognizing that we needed to lower the cost of morbidity, we have invested heavily in separating the good claim experience from the bad. This meant building and maintaining an extensive experience database and analysis process. We have also worked at lowering the other costs of doing business. We've instituted score-keeping systems that allow us to watch closely our results as they emerge through our financials from quarter to quarter. We have

## INDIVIDUAL DISABILITY INCOME (DI)

analyzed the profitability of new business several times, building, testing and validating assumptions each time. Our models contain thousands of cells so we can get the appropriate interaction among the key assumptions. We've worked closely with our distribution system to involve it fully in the business of improving profitability. We have set benchmarks for high versus low quality business, and, today, each of our field offices knows what its quality profile is for the business it's selling. We have priced to ensure that we're meeting our profitability targets and to become more competitive in the better market segments, less so in the poorer segments. Our producer compensation is tuned to help drive business quality improvements. We've revised policy provisions and underwriting guidelines, including the occupation classification scheme and issue and participation limits. Financial underwriting, once the poor cousin to medical underwriting, is now an equal – often more than equal – partner in the underwriting process. Our knowledge-based automated underwriting system releases highly qualified staff to underwrite the tough cases, and it generates much of the business quality information that goes to our field. The enhanced medical-and-lifestyle information that comes from a thorough blood-testing program has been an invaluable tool in avoiding sales to applicants who are unacceptable risks. In short, our goal is to ensure that the business we're selling is helping the situation, not making it worse.

We have used a similar approach for attacking problem areas in our in-force block. Here, of course, our focus is on remedial actions, most often through the claim process. I want to emphasize that this process is centered around three fundamental, philosophical concepts:

- Providing excellent service
- Paying the right benefits to legitimate claimants
- Avoiding paying benefits that aren't rightfully due

This philosophy isn't new to our claim department, but the tools being applied, in many cases, are. Analysis of our morbidity data is used to focus claim-processing efforts where they count the most. We have added a psychiatric unit to help manage mental/nervous claims. An expert system directs the tougher claims to more experienced staff while providing suggestions for the claim-management information that would be obtained and guidance as to the likely length of claim. Our home office claim staff has been supported for years by a team of field claim representatives. Today, we have more of them and use them more effectively. Financial specialists help us manage residual disability claims. And while we find that the vast majority of claims are legitimate and should be paid, we also are better at finding the ones that are not. We have built a process, including an investigative unit, that helps to uncover the wrongful claims and resolve them. We are taking a more proactive stance in the courts. More attention is focused on geographic areas that generate poor claim experience, including programs that ensure that, within the context of our claim philosophy, these areas get appropriate attention from our best people. We continue to monitor our experience to see what effects all these efforts are having.

We also monitor our claim-reserve assumptions frequently. These assumptions can materially affect our perceptions of the profit emerging from our business. Reserves are a timing mechanism. Weak claim-reserve assumptions allow earnings to emerge prematurely and lead to runoff losses. Reserve strengthening can be tough medicine.

## RECORD, VOLUME 19

Overly conservative reserve assumptions hold earnings in the reserves, delaying their recognition. This is an ongoing effort because significant corrections in either direction are difficult to implement.

Is this prescription succeeding? By several measures, it is: our experience has stabilized and our financial results have been improving. We firmly believe that the business being sold today is good business. We also believe that we are better able to manage our older business than was the case several years ago. We still have progress to make, but we have had an impact.

Has it been expensive? Yes! The investment in staff, research, computer systems, and the cooperative effort needed to solve problems has been, and will continue to be, significant. Can every company in the DI business do this? I don't know.

### **INDUSTRY CONSOLIDATION**

Consolidation is occurring in the DI industry. One of the first forms of consolidation occurred when Paul Revere agreed to manufacture DI for Prudential in return for access to its career agency system. Today we are seeing more of these wholesaling arrangements as well as private label agreements and the reinsurance of in-force blocks of DI. I'm aware of seven companies that have taken action of this last variety within the last five years. At least one company has been purchased by a major DI carrier to gain access to its line of DI-related products. There are several factors driving this trend.

First, and most important, DI is a complex, expensive product to manufacture and to manage to a profit. The investment in systems is significant, partly because DI is perceived as too limited a market for software houses, partly because the major DI companies each have a unique operating approach. Sources of trained, experienced DI experts are limited as well. They provide a key ingredient for managing this business: an ability to make decisions before the data are mature enough to clearly support one course of action versus another. The rewards for good decisions can take years to emerge, and the penalties for poor judgments are long-lived. The cost to maintain a competitive portfolio, including superior underwriting and claim operations, is significant, especially for a small line. I don't mean to say that it cannot be done; I do say that it is expensive and requires a commitment for the long haul.

Second, companies are changing their views about distribution as well as the manufacturing of the products sold. While this trend is yet young, we are seeing downstream organizations whose function is to ensure that the parent company's core products are sold and to funnel noncore products from other sources to the parent's producers. This opens opportunities for supplier companies to gain access to more producers while removing more companies from the manufacture of certain products. DI is a prime candidate for this new approach. As it happens, the number of DI manufacturers will continue to shrink.

Third, related somewhat to each of the first two points, is that nearly every business we find ourselves in as an industry is getting more complex with every year. This added complexity comes from the growing needs of our consumers, the growing effects of regulation, narrowing profit margins, the prospects of international markets, and the accelerating pace of our businesses. This leads companies to choose to

## INDIVIDUAL DISABILITY INCOME (DI)

concentrate on their core businesses. They invest in building leading-edge expertise in those businesses and make decisions to disinvest elsewhere. This has been a factor in the consolidation within the DI industry, and it will continue to drive this trend.

Fourth, the capital requirements needed to be a player in the DI business have been increasing. The burden of deferred acquisition cost taxes and the higher levels of surplus mandated by the risk-based capital regulation are contributors, as are the levels of acquisition expenses and a statutory valuation requirement that may be too conservative. These factors can cause a company, perhaps already faced with too narrow DI profit margins, to choose to deploy its capital resources elsewhere.

On balance, continued consolidation at an increasing pace is, in my view, the most likely scenario.

Let me conclude this way. Today is the most exciting, interesting time to be involved in the DI business within the last decade. There is evidence that experience and profits can be improved, and the pace of change, including consolidation and actions designed to improve earnings, is astounding. But the DI business is not a place to casually experiment. It is a long-term enterprise that must be managed with great care and with vision. Absent these, recent history demonstrates that the outcome is clear. There are few ways to lose money more quickly than to mismanage the DI business. But it can be a rewarding, capital-contributing business for those who choose to manage it well.

MR. SCARLETT: I have a few comments that I'd like to add to those of the prior speakers. I will talk about recent experience that I've observed, and will try to answer the questions: Will profitability return? and Will the industry continue to shrink?

### RECENT EXPERIENCE

With respect to past recessions, most of us believed that it was primarily the blue-and-gray collar risks that were affected. Thus, those companies that were concentrating on the professional, executive marketplace were somewhat immune to the effects of economic cycles. I think that's past history! As everyone knows, an economic recession began in the fourth quarter of 1990, and it is debatable as to whether or not it has ended. This recent recession has clearly hurt disability writers. Professionals and executives have been affected by this recession, and it is showing up in the experience of most disability companies.

From the experience that I have observed at many of my clients, it appears that the effect of the economic situation is being seen more in reduced claim-termination rates, rather than increased incidence rates. This is in contrast to the experience being reported by the Social Security Administration. Social Security disability incidence rates have increased by 8% in 1990 and 13% in 1991 (I don't know what happened in 1992, yet). Most of my clients have not seen such large increases in incidence rates.

Social Security claim-termination rates have declined significantly in recent years, and this phenomenon has also been observed in the individual DI industry. It is not uncommon to see decreases in claim-termination rates of 15-20% over the last three years. One of my clients has experienced claim-termination rates that were 50% to

65% less than the 1985 CIDA claim-termination rates in the early months of claim duration. It's hard to prove that part of such a reduction is due to the recession, but some of us believe that it is.

The trend toward longer-duration claims is also a function of more mental and nervous disorder claims (I'm also including drug and alcohol abuse claims when I refer to mental and nervous disorders). Mental and nervous claims last 75-100% longer than all other types of claims, according to the recent survey that we published in our *Disability Newsletter*. AIDS claims also last 60-100% longer than other claims, according to the same survey.

AIDS claims range from 1% of total cash claim payments to about 5% for some companies. Presumably the difference depends on the markets that companies are in, as well as their testing requirements. Some companies are experiencing an increase in the percentage of AIDS claims, and others are seeing a decrease. We concluded in our survey that AIDS benefits, as a percentage of total DI benefits, have been fairly flat over the last couple of years.

On the other hand, mental and nervous claim payments range from 10-30% of total disability claim payments, with most companies in the 15-20% area. These mental and nervous claims are growing as a percentage of the total each year, and are a cause for great concern in our industry. Many companies in our survey reported a disproportionately high rate of mental and nervous claims in California, and among female policyholders. If you want more information on this survey, let me suggest that you read the March issue of the *Disability Newsletter*, published by Milliman & Robertson.

#### **WILL PROFITABILITY RETURN?**

I'm optimistic that the individual DI industry will be profitable in the future. I think some disability carriers have already seen a return to profitability, if not on a statutory basis, at least on a GAAP basis. It is my opinion that the industry caused its own problems with liberal products and liberal underwriting and inadequate prices in the early and mid-1980s, and we are now paying the price for our competitive frenzy. But now companies have increased their prices, tightened their products and underwriting, and are more aggressive in claim administration. I'd like to discuss each of these areas in greater depth.

#### **PRICES**

Premium rates have been increasing in the last few years, especially at shorter elimination periods where experience has been very poor. I think this is a trend that will continue until profitability is at acceptable levels. The fact that interest rates have been declining is another reason that premium rates are likely to continue increasing in the future. The introduction of the deferred acquisition cost tax is another upward pressure on premiums that companies are now recognizing in their pricing.

Many companies are charging higher rates in California and Florida, and some companies have introduced geographic pricing across the entire nation. I think this trend will continue. Companies that have not gone to geographic pricing are recognizing that they are becoming the low-cost company in areas of high risk, and are becoming the high-cost company in the most profitable geographic areas. I think

## INDIVIDUAL DISABILITY INCOME (DI)

their only viable alternative will be to follow other companies and introduce geographic pricing themselves.

Having gone to unisex rates in the past, some companies have returned to sex-distinct pricing. They have realized that, when female business is sold on a unisex basis, the profit expectations on female risks are not only reduced but also are actually negative for many companies. In addition to helping correct the female profit problem, sex-distinct rates may provide some competitive advantage with respect to male risks, which is helping the marketing people accept the idea of sex-distinct rates. I think this will be a continuing trend on individual sales, while most companies will still use unisex rates on employer-sponsored business.

### UNDERWRITING

Most companies have tightened up underwriting practices over the last five or six years, and that will clearly help the industry return to profitability. Blood testing was adopted a number of years ago to help protect companies from the AIDS risk, but it has provided much more protection than just from AIDS. Many companies get liver function tests, and are getting quite a few positive hits, presumably due to alcohol abuse. I'm told that at least one lab can do liver function tests on only a dried blood spot sample, and some companies are using this relatively new procedure. As more and more blood testing is done, urine samples are also taken at the same time. The urine samples allow for further testing, including cocaine and other drug screens, which have proven to be valuable to disability carriers. Some companies have decided to test all applicants, regardless of size of the benefits being applied for, in problem areas like California.

Companies are also getting much more income documentation in the underwriting process, and some are giving discounts for getting this information (really, it's a surtax on those applicants who don't submit the data). I'm convinced that in the past we have overinsured many people, and income documentation is one way to help reduce such overinsurance.

Because of the problem with having more mental and nervous disorder claims, companies are rejecting applicants with any history of mental or nervous problems, especially stress problems that are job-related in any way. Also, some companies have reduced their offers of guaranteed insurability to groups and associations, as these guarantees have been a part of the profitability problem in the past.

### CLAIMS

More aggressive claim management is also helping companies return to profitability. Many companies are seeking out those claimants who would be receptive to a lump-sum settlement of their claims. Some companies insist that the claimant be represented by legal counsel to reduce the chances that they will be accused of taking advantage of a disabled person. Some of these companies also understand that the claim reserve is not necessarily a good measure of the present value of future benefits on each individual claim, and are calculating such present values independently of the reserve system.

Even though our contracts often provide for long-term own-occupation coverage, companies have found that some disability claimants are eager for rehabilitation

## RECORD, VOLUME 19

assistance. Companies that have tried rehabilitation report that they are getting up to \$20 in present and future benefit savings for every \$1 spent on rehabilitation.

### **PRODUCT**

Perhaps the biggest change in product over the last few years is that most disability writers no longer cover normal pregnancies. Complications of pregnancy are still covered, of course. This change is already helping the industry move back toward profitability, in my opinion.

Perhaps another product change that is worth mentioning is that companies are no longer liberalizing product provisions. Back in the 1980s, companies were playing leap-frog to be sure they had some competitive edge in the product area.

In response to the mental and nervous disorder problem, a few companies have introduced limits on mental and nervous disorder benefits. Group LTD carriers have had limitations on mental and nervous benefits for a long time (usually a limit of two years on the benefit period). The LTD writers acknowledge that the number of mental and nervous disorder claims has increased, but they don't have the financial exposure that individual carriers do. I think more companies will adopt limitations on mental and nervous disorder benefits in the future.

### **RESERVES**

Because claim-termination rates have been decreasing, companies have realized that their claim reserves may need to be strengthened. I think much of that strengthening has taken place over the last three or four years, and this has contributed significantly to the downturn in industry earnings.

Because of the adoption of the appointed actuary concept, some DI appointed actuaries have decided that a gross premium valuation is needed on all disability reserves, to be sure that they can sign off on the adequacy of overall reserves. I don't think it's necessary to match assets and liabilities exactly, but the DI actuary does need to do cash-flow projections in order to project portfolio earnings rates to use in the gross premium valuation.

I think this greater attention to reserve adequacy will help the industry to return to profitability.

### **WILL THE INDUSTRY CONTINUE TO SHRINK?**

When some companies see Mark Seliber's industry financial results, I think they will question the viability of individual noncancelable DI. A few companies will conclude that they can never earn any profit in this business, and they will exit the marketplace. I hope the number of such companies will be very few.

However, I also think there will be a few new companies entering the business. We have had discussions with casualty companies and foreign insurance companies about individual and group disability products and markets. One large casualty carrier has observed our business from a distance for a number of years, and has concluded that now may be a good time to enter the market, simply because sanity seems to be returning to the marketplace. Insurance companies in both Europe and Japan have

## INDIVIDUAL DISABILITY INCOME (DI)

expressed interest in the U.S. disability market because they perceive it to be large and potentially profitable.

Also, there are a number of insurance companies, which are heavily dependent on selling individual medical expense coverage, that are scared to death that Hillary Clinton's task force is going to destroy their market. Some of these companies are thinking about getting into the disability business, or increasing their disability presence, as an alternative. For all of these reasons, I think there will be some change in the companies that are in the individual DI business, but I don't think the industry will continue to shrink.

### SUMMARY

In summary, I think the industry is doing the right things to return to profitability. Rates are increasing, underwriting and products are tightening, claim administration is becoming more proactive, and reserves are being strengthened. I think this will lead to future profitability, and future profitability will attract some new companies into the marketplace.

The real long-term question is, once profitability has returned, will the industry shoot itself in the foot again in its efforts to do competitive battle?

MR. ROBERT MICHAEL DAMLER: My question relates to Mark Seliber's information presented for the *Disability Newsletter*. You are showing that incurred loss ratios have been increasing for the last several years, and you also mentioned that reserve strengthening has occurred in the past several years. Did you adjust the loss ratios in the late 1980s to reflect the reserve strengthening that occurred in the early 1990s?

MR. SELIBER: That's a good question. Basically, the loss ratios that I'm reporting are not adjusted for that factor, as the actual results are from Schedule H of the statements. The statutory results in the material that Dave Libbey presented, for Paul Revere in particular, look at adjusted loss ratios figuring in, among other things, the interest on the claim reserves. I think that's a valuable way of looking at it. I think, overall, the trends would still be up but perhaps by not quite as much as my numbers show.

MR. JOHN A. FESSENDEN: My question is directed to any or all of the panelists, although it came out of a comment that Mr. Libbey made in his presentation. With respect to producer compensation, you indicated that this is being modified and molded to encourage the production of profitable business and presumably a decrease in the production of unprofitable business. I understand that there's been a general decrease in the base compensation with higher bonuses for people producing larger amounts of business. This is consistent with higher profitability indicated by several analysts for those producers who do produce larger blocks, and also for bonuses for increased persistency. In addition to these, what other methods are being used to encourage the production of profitable business?

MR. LIBBEY: In addition to the producer compensation itself, that is, the dollars reaching the producer's pocket, the amount of credit allowed for sales in different market segments is being varied. We reduce the amount of credit that is allowed for sales in the lower-quality segments, and relative to that, we allow more for sales in

RECORD, VOLUME 19

the higher-quality segments. This becomes important because it relates to some of the incentive compensation amounts that we provide. So it tends to be probably a little less visible, a little more subtle than simply saying we'll pay you less commission. On the other hand, it's effective because the producers watch where the compensation comes from very closely.

MR. RICHARD NOEL FERREE: Nick, you mentioned the replacement ratios were causing certainly part of the problem. One of the things I've looked into at Metropolitan Life is steeper replacement ratios by geographic area. I've noticed that an issue and participation table that might give a 70% replacement ratio in New Hampshire with no state income taxes could produce probably in excess of 100% in some places like New York City. I'm wondering if people have considered state issue and participation tables?

MR. BIETER: We don't use state issue and participation tables. The actuarial section would probably recommend them but I don't know that marketing is ready for that. You're quite correct. We take a broad approach to it that doesn't take into account the insured's particular situation. We also don't take into account dual-income families very well. So I think there is a great need to get more sophisticated.

MR. SCARLETT: In the next issue of the *Disability Newsletter*, there's going to be an article written by two actuaries at Northwestern Mutual regarding issue and participation limits.

ALBERT A. RIGGIERI, JR.: Does the panel have any views about how companies will deal with investment income risks and tax risks on new business? Do you think future DI products will have some adjustable premiums to account for some of those risks?

MR. SCARLETT: Are you talking about a move toward guaranteed renewable products?

MR. RIGGIERI: How about a noncancelable product with an adjustable premium subject to a cap?

MR. SCARLETT: Is that still noncancelable?

MR. RIGGIERI: I'm not sure.

MR. SELIBER: I think it's an intriguing idea fraught with potential and fraught with some serious pitfalls, but it represents an approach or a type of idea that might deal with some of the uncertainty that exists in the DI business. Up until a few years ago, my personal view was that taxes were probably the least of our problems. The enactment of the DAC tax certainly changed my viewpoint thoroughly on that point.

MR. SCARLETT: Several companies that I've been working with have been talking about coming up with a Chevy-type product as opposed to the Cadillac products that we've been selling in the past. A Chevy product in their vision might be a guaranteed renewable product without all the bells and whistles, maybe with issue and

## INDIVIDUAL DISABILITY INCOME (DI)

participation limits scaled back a little, and with some significant price savings for the consumer.

MR. PETER L. HUTCHINGS: One of the panelists mentioned a client that was finding that the statutory valuation table's termination rates are overly unconservative in the early duration. Is that a consensus among the panel?

MR. SCARLETT: In other words, are claim termination rates in the 1985 CIDA too high?

MR. SELIBER: I think that's been true in 1992 in particular, and obviously a key question is whether that will continue in 1993 and beyond. The economy presumably has a lot to do with that.

MR. LIBBEY: I think the pattern of claim-termination rates, or the trend of where they're going, is one of the great mysteries of our time. By that I mean that it's difficult to separate the various things that are driving claim-termination rates to either deteriorate or improve. Frankly, I am guardedly optimistic that claim-termination rates will begin to improve some in the next year or so as we continue to emerge from the current economic downturn. As we continue to do a better job of managing claims, and as we continue to better underwrite the business that we're putting on the books, it's probably the latter point that will serve to drive things more than anything else. To the extent that we are able to put business on the books that has fundamentally better claim performance characteristics, then I believe that we will see the kind of upswing in claim termination rates that I'm speaking about.

FROM THE FLOOR: On a snapshot basis, is it possible that the CIDA is inadequate as a result of overstated termination rates?

MR. LIBBEY: Yes, it is. That is imminently possible at this point.

MR. SCARLETT: That seems to vary from company to company. When you aggregate all companies, I think the majority of them are saying that the 1985 CIDA is somewhat inadequate in the early claim durations.

MR. LIBBEY: We've seen a dramatic increase in the portion of our cost of claims attributable to mental, nervous, alcohol and drug claims. That trend in mental and nervous claims from 1986-91 where we saw virtually a 50% increase in the portion of the cost of claims attributable to that category is not good news. Here are some of the most expensive claims that we can have on our books. But if those things begin to turn around and come back down, then we have the capability to bring claim-termination experience back in line. That's one good example of the type of thing that can be done, and I feel companies should very seriously monitor that distribution.

MR. THOMAS M. CASALENA: Have you ever been in a position to monitor your claim-termination rates with specific plan designs, like residual benefits that would induce people to go back to work, and see what influence that has on your termination experience?

RECORD, VOLUME 19

MR. LIBBEY: Yes. We have done a review of residual experience. The results are far enough from my immediate recollection that I'd probably get it wrong if I answered you directly. I'd be happy to talk with you about it or have you talk with one of our other actuaries who is here, after the session's over.

MR. SCARLETT: Some of the data that I have seen indicate that the existence of residual benefits is a tool for the claim department to use to help get people back to work. Residual benefits do have a beneficial effect on total disability claim termination rates, maybe as much as 10%.

MR. LIBBEY: We have looked at that particular phenomenon, and the data we've observed suggest that there's less of an impact on the cost of total disability claims than we once thought. The residual benefit represents an incremental cost all its own without a significant reduction in the cost of total disability claims.

MR. SELIBER: We have a basic only policy, so we can look at residual experience separately. Recent analysis has shown that our residual experience is better than our overall experience, and our regular experience is worse.

MR. ROBERT H. PLUMB: I write occasionally for the *Disability Newsletter*, but I'd like to talk in my capacity as chairman of research in the U.K. and share with you a couple of the experiences we've had. Our U.K. DI experience has suddenly gone desperately wrong. Why? There are a number of factors. For a start, we've seen the mix of occupations changing in our business, and therefore we now realize that decent occupation loadings can be up to more than 350% of premium. Second, we have always had sex-distinct rates. We are still seeing, even with professional experience for females, a very much higher claim rate. We have never included normal pregnancy in our terms and conditions for females, and yet we still are having much higher experience. We have seen certain occupation classes deteriorate, in particular dentists and teachers. They have been downgraded in occupation mix. One way the companies have reacted to the last downturn, is the steady movement away from noncancelable business towards guaranteed renewable business. Significantly, the prices are outrageous, but it doesn't seem to affect the lapse rates.

Above all, we've noticed that this time around companies have become lazy about claim control. For those that have had very poor experience, generally claim control is being tightened. We do have problems on high replacement ratios because we had tax-free benefits. One of the things we do in the first year is to get much more information out of a claimant on the short-elimination-period business after a claimant has been collecting benefits for a couple of months. It is quite surprising how much information you can get, and what effect it has on getting people to go back to work.