



SOCIETY OF ACTUARIES

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## New Credit Disability Table

by Robert J. Butler

Today companies hold the gross unearned premium reserves as their statutory reserve for single premium credit disability insurance. On a nationwide basis, the current *prima facie* credit disability rates produce a 50% earned / incurred loss ratio. The industry pays commissions in the 30 to 40% range. For the most part, the commissions are charged back to the producer on refunded premiums. As a result, the industry holds statutory reserves that are very conservative and are an unnecessary drain on capital.

In light of this, the Actuarial Committee of the Consumer Credit Insurance Association (CCIA) asked me to head a subcommittee to develop a valuation table for single premium credit disability insurance. Steve Ostlund, Craig Squire and Chris Hause joined me in this effort.

The existing tables are the NAIC's 1968 and 1974 credit disability tables. Both tables are a composite of age and gender and therefore are not appropriate valuation tables. We also realized that developing a credit disability table could provide more benefits than just reducing surplus strain. A table properly constructed could provide a basis for rating by age and gender, give us a better relationship of rates by term of coverage, plus many other benefits.

We considered an approach similar to that used in the past two credit disability studies. It involves collecting detail claim and exposure data, by plan, age and gender of the insured. After researching this further we decided to abandon this



approach for the following reasons:

1. Many companies do not record the reason a claim is terminated. It is crucial to know whether claimant's benefits terminated because of recovery, death or expiration of benefits.
2. Many of the companies' data processing resources were committed to solving the year 2000 problem.
3. The most recent 1974 NAIC table that was constructed in this manner had claim costs higher than what the industry in total was experiencing.

We decided to use an existing disability table and modify it to fit the industry's actual experience. A number of disabled life tables were reviewed, and the 1985 Commissioner Individual Disability Table was selected as the best choice from all available tables.

The CCIA asked its member companies to submit data on their credit disability single premium business issued in 1997. The data was separated by the elimination period, original term of coverage in months, age last birthday at issue (or date of birth and issue date) and, when available, gender. Collected premiums gross of refunds and original amount of insurance (insured monthly indemnity times the number of months insured) were provided for each of these categories. Sixteen corporate groups representing two-thirds of the credit market contributed their data, covering over \$25 billion of gross insured indebtedness.

Each year the companies writing credit insurance complete the Credit Insurance Experience Exhibit (CIEE)



as part of their annual statement filing. This exhibit is prepared for each state's own experience. The experience is separated between single premium and monthly business. The credit disability experience is further split into six elimination periods. Actual earned premiums are reported, as well as what the earned premiums would be if all business were written at the state's *prima facie* rates in force at the end of the year. The data for all states is submitted on diskettes to the NAIC. Only the single premium data for years 1992 through 1996 was selected for validation of the table. *Prima facie* rates in force at each year end by state, plan, and original term of loans in months were gathered and recorded. Using the new business distribution weighted premiums and claim costs were calculated by plan.

The 1985 CIDA has separate incidence and termination rate table for males and females, four occupation groups and for the 7-day elimination period, the 14-day elimination period, the 30-day elimination period and 90+ elimination period (along with 0-day accident). Three disability tables were constructed, one for the 7-day elimination period, another for the 14-day elimination period and one for the 30-day elimination period. For each table there are 8 subtables, one for each combination of the four occupation classes and two genders. Our studies show that 70% of the exposure is on

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## New Credit Disability Table

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males. No company recorded occupation in their records. We decided to use the distribution of the U.S. work force by occupation. This was determined from the July 1998 Bureau of Labor Statistics published by the U.S. Department of Labor. The distribution is outlined in Table 1:

We consider this a very good fit since the actual experience comes from an unusually strong economic period. We have released the full study to the Society of Actuaries (SOA) to review and comment. We are seeking their endorsement of a basic table for credit single premium disability insurance.

We have conducted various sensitivity testing and the impacts various loadings will have on the basic table.



### How can you help?

We are interested in your feedback. Read the full study and give us your honest comments. If you agree with the study and the need to have a valuation table, then promote this to your friends in the NAIC and state insurance departments.

To get the study and attachments, send me an e-mail requesting the data and I will forward it to you. Write to me at [Bob\\_Butler@abig.com](mailto:Bob_Butler@abig.com).

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**TABLE 1**

Occupation	Male	Female
Class 1	26.8%	30.7%
Class 2	19.5%	40.8%
Class 3	29.1%	19.6%
Class 4	<u>24.7%</u>	<u>8.8%</u>
	100.0%	100.0%

Using these distributions three composite tables were created for the three elimination periods. Weighted claim costs from these table were computed and compared to the actual experience with the results reported in Table 2.

Once we receive the SOA endorsement, we can then put the full study out on the SOA Web site as an exposure draft. We have also released it to select regulators for comment. We want to involve the NAIC in the selection of proper loading to go from a basic table to a valuation table.

**TABLE 2**

Plan	Prima Facie Premium Distribution	New Table	Net Single Premiums (Claim Costs)	
			1992-1996 Experience	1968 NAIC Study
7 day retroactive	16.2%	2.79	1.95	n/a
14 day retroactive	70.4%	2.52	2.13	2.26
14 day retroactive	2.9%	2.06	2.36	2.00
30 day retroactive	5.7%	1.79	2.41	1.51
<u>30 day elimination</u>	<u>4.8%</u>	<u>1.45</u>	<u>2.11</u>	<u>1.24</u>
Total	100.0%	2.46	2.12	n/a