

EDUCATION AND EXAMINATION COMMITTEE

OF THE

SOCIETY OF ACTUARIES

COURSE 8 HEALTH, GROUP LIFE, AND MANAGED CARE STUDY NOTE

COURSE 8 HEALTH, GROUP LIFE, AND MANAGED CARE CASE STUDY

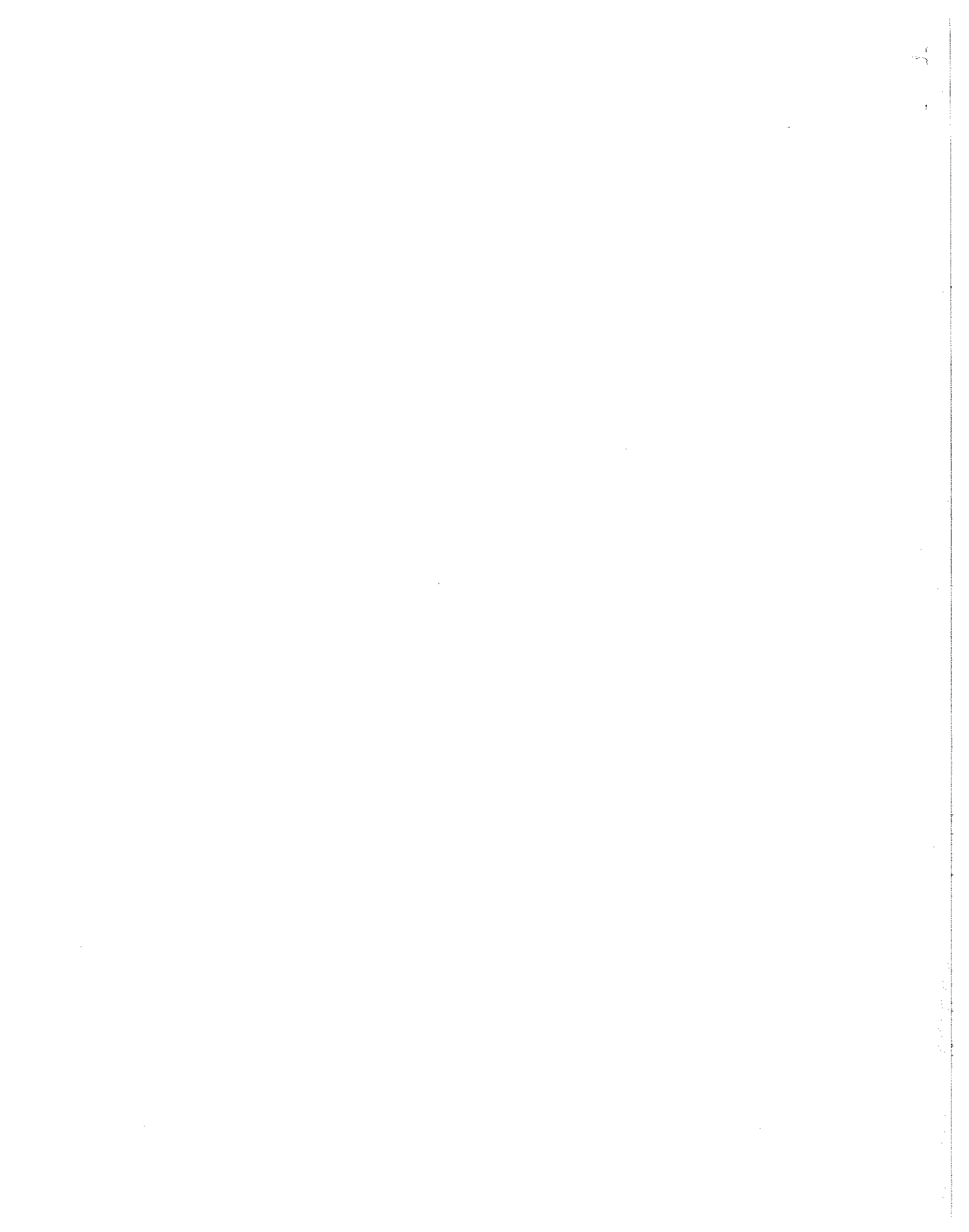
HEALTH AND GROUP LIFE EXTENSION

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8G-13-03

Printed in U.S.A.



**COURSE 8: HEALTH, GROUP LIFE AND MANAGED CARE
CASE STUDY**

HEALTH AND GROUP LIFE EXTENSION

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HEALTH AND GROUP LIFE EXTENSION

I. GROUP LIFE AND DISABILITY DIVISION

The Group Life and Disability (GLD) division is one of four primary corporate divisions of Wonderful Life Insurance Company. The GLD division offers products and services to meet policyholders' needs for financial protection, including group life, both group and individual disability income, and long-term care insurance.

The GLD division provides group life insurance to small, medium, and large size employers, including employee, spouse, child, waiver of premium, and AD&D coverages. The GLD division offers coverage amounts on employees that are based on a multiple of earnings or predetermined flat amounts. Dependent coverage products are typically based only on flat predetermined amounts. The GLD division requires individual short form underwriting on employers with less than 25 employees. No individual underwriting is required for larger employers as long as certain requirements are met. The GLD division also complies with any laws with regard to eligibility and benefits. The group life products are typically marketed through brokers and consultants.

The GLD division maintains reinsurance on any life insurance amounts in excess of \$500,000 and shares in the risk exposure with the reinsurer up to a maximum exposure to the GLD division of \$1,000,000 per life. Amounts over the maximum retained liability of \$1,000,000 can be submitted to the reinsurer on a facultative basis. Waiver of premium benefits are reinsured on the same basis. In addition, the GLD division reinsures any AD&D amount in excess of \$250,000 on a shared basis up to a maximum retained liability of \$750,000 per certificate.

The GLD division offers a range of long-term disability products in both the individual and the group market. All of the GLD division's LTD business is written on a fully insured basis. The individual products comprise approximately 15% of the total LTD business. The GLD division reinsures 50% of its exposure on both the individual disability income (IDI) and group LTD (GLTD) products, up to an overall total maximum disability monthly benefit of \$15,000 per employee or individual.

Financial results for the IDI line are below target, but have improved from very poor results in the mid-1990s. Wonderful Life's top management is in the process of evaluating all strategic options with respect to the IDI line.

The division has recently undergone a detailed analysis of the GLTD experience in order to understand the factors that have impacted the recent financial results and to improve the rating process.

The historical premium distribution of the GLTD block of business by elimination period is illustrated below. In 2000, the majority of the GLTD business was written

with a 180-day elimination period. In the most recent two years, the division has seen a shift in the GLTD product line to a 90-day elimination period.

Elimination Period	2000	2001	2002
90 day	30.0%	60.0%	60.0%
180 day	50.0%	30.0%	30.0%
Other	20.0%	10.0%	10.0%

Over the past few years, the GLD division has seen a large increase in the number of their clients that have introduced flexible benefits programs. The division has recently invested in system enhancements to ensure the proper level of administrative support for these flexible programs. Historically the GLD division has had a reputation in the marketplace of being fairly inflexible in terms of being able to accommodate non-standard client needs.

At the beginning of 2001, the GLD division entered the long-term care marketplace in an attempt to broaden their client base and the group services offered. Initial sales results have exceeded expectations, although current losses have been worse than anticipated. Management is aware that experience for this block of business is not yet credible and is not prepared to make substantial changes in pricing or marketing without further analysis.

Financial information is provided in this case study regarding the group life, IDI, and the GLTD product lines. Detailed financial exhibits for group long-term-care products are not provided. The three-year financial statements illustrated in this case study are recast for 2000 and 2001, with claims expense estimates that reflect claim run-out through the end of 2002.

All numbers found in this case study are for illustration only and may not be representative of true costs or actual relationships. Any similarities with actual company results are purely coincidental.

Group Life Financial Data

The most recent three years of experience for all the group life products (including employee, spouse, child, waiver of premium, and AD&D coverages) are illustrated in Table GLD-1. Fully insured premiums in this regulatory environment are subject to a premium tax, which is shown as an expense line item. Both commissions and premium tax are based on a percent of premium. General expense includes division overhead allocated to the product line. The increase in actuarial reserves is calculated as the year-end reserve less the beginning of the year reserve. Some of the larger employers are subject to experience rating and any amount owed in the form of dividends or experience rating refunds are maintained as a separate line item. Investment income includes earnings on the assets that support the business as well as earnings on operating income.

Group life revenues have increased at an average annual rate of nearly 12.5% over the last two years. Total claims expense and gross operating margins have varied during this

time period. General administrative expenses as a percent of revenue have been steadily increasing, although commissions and premium taxes have remained fairly steady. Operating margins for the past three years have been negative, but strong investment income results have resulted in positive operating earnings for the same period.

Group Life Actual to Tabular Experience

The GLD division has historically used the results of an intercompany claims study to develop group life rates. Expected claim rates versus the actual experience for the group life product are illustrated in Table GLD-2.

LTD Financial Data

The most recent three years of experience for GLTD products are illustrated in Table GLD-3a. Fully insured premiums in this regulatory environment are subject to a premium tax, which is shown as an expense line item. Commissions and premium tax are based on a percent of premium. General expense includes division overhead allocated to the product line. The increase in actuarial reserves is calculated as the year-end reserve less the beginning of the year reserve. Some of the larger employers are subject to experience rating and any amount owed in the form of dividends or experience rating refunds are maintained as a separate line item. Investment income includes earnings on the assets that support the business as well as earnings on operating income.

GLTD premium income for the GLD division has increased at an average annual rate of 12.5% over the last two years. Total claims expense during this period has fluctuated. General administrative expenses have increased, although commissions and premium taxes as a percentage of premium have remained fairly steady. The product line has experienced a loss at the operating margin level for the past three years. Despite strong investment income results, the product line experienced a loss at the pre- and post-tax operating earnings level in 2002.

The most recent three years of experience for the IDI product lines are illustrated in Table GLD-3b. Financial statement line items are similar to those illustrated in Table GLD-3 for the GLTD product lines, with the exception of dividends and experience rating refunds, which are not applicable for the IDI block.

IDI premium income for the GLD division has increased at an average annual rate of 11.2% over the last two years. Total claims expense during this period has deteriorated slightly. General administrative expenses, commissions, and premium taxes as a percentage of premiums have remained fairly steady. The product line has experienced a worsening loss at the operating margin level for the past three years. Because of strong investment income results, the product line experienced a gain at the pre- and post-tax operating earnings level in 2002.

GLTD Claim Lag Data

Tables GLD-4a, GLD-4b, GLD-4c, GLD-4d, and GLD-4e illustrate the claims run-out for the GLTD product line by calendar quarter, beginning with the first quarter of 1999. Earned premium for the calendar quarter is indicated in the first column. Monthly and cumulative paid claims are also shown for each incurral quarter, beginning with the quarter of incurral (duration 0), through each subsequent quarter (durations 1-15). The last available quarter of duration is the fourth quarter of 2002. The estimated open claim reserves and the incurred but not reported reserves are shown by quarter of incurral and duration. Total quarterly gross incurred claims at any particular quarter of duration equal the sum of the accumulated paid claims, the open claim reserves and the incurred but not reported reserve. Total net incurred claims for each incurral quarter at each duration are calculated as the total gross incurred claims less an accumulated investment credit on the total reserves. For each quarter of incurral, an interest adjusted incurred loss ratio is shown at each quarter of duration.

LTD Incidence Rates

Table GLD-5 illustrates the incidence of GLTD claims by quarter of incurral, beginning with the first quarter of 2000, through the fourth quarter of 2002. The number of incurred claims in each quarter is indicated, as is the associated covered lives exposure (on an annualized basis) and the resulting actual annualized incurred claims per 1,000 covered lives incidence rate. The expected annualized incurred claims per 1,000 covered lives incidence rate on an aggregate basis is also shown. The actual to expected incidence ratio is calculated for each quarter.

LTD incidence rates as included in the GLD division's pricing assumptions are shown in Tables GLD-6a and GLD-6b. The incidence rates per 1,000 covered lives are shown by selected ages, by gender, and for the three most common elimination periods for the product line.

LTD Termination Rates

The progression of GLTD claim termination is illustrated in Table GLD-7. The actual number of open GLTD claims is illustrated for each quarter of incurral and subsequent durations through the fourth quarter of 2002. Table GLD-7 also illustrates the expected number of open GLTD claims for each quarter of incurral and duration and the actual to expected ratio of open GLTD claims.

An excerpt from a basic GLTD termination rate table is shown in Table GLD-8a. The table illustrates the rate of disablement after a six-month elimination period per 1,000 covered lives for males at various ages of disability. The probability of termination of disability from either death or recovery is shown by month for the first two years following the disability. The probability of termination of disability from either death or recovery is shown by year after the first two years following the incidence of disability. The GLD division incorporates this table and similar tables into the pricing assumptions

used for the GLTD product line. A similar excerpt from a basic IDI termination rate table is shown in Table GLD-8b for a three-month elimination period.

TABLE GLD-1
THREE YEAR FINANCIAL STATEMENT FOR GROUP LIFE
(Amounts in \$1,000s)

	2000	% of Premium	2001	% of Premium	2002	% of Premium
Premium Income	\$150,000		\$172,500		\$189,800	
Paid Claims	\$112,500	75.0%	\$138,000	80.0%	\$132,800	70.0%
Increase in Actuarial Reserves	<u>\$6,800</u>	4.5%	<u>\$6,900</u>	4.0%	<u>\$8,000</u>	4.2%
Total Incurred Claims	\$119,300	79.5%	\$144,900	84.0%	\$140,800	74.2%
Dividends and Experience Rating Refunds	<u>\$15,000</u>	10.0%	<u>\$13,800</u>	8.0%	<u>\$22,800</u>	12.0%
Total Claims Expense	\$134,300	89.5%	\$158,700	92.0%	\$163,600	86.2%
Gross Margin	\$15,700	10.5%	\$13,800	8.0%	\$26,200	13.8%
General Administrative Expense	\$12,000	8.0%	\$17,300	10.0%	\$24,700	13.0%
Commissions	\$3,800	2.5%	\$4,000	2.3%	\$4,700	2.5%
Premium Tax	<u>\$2,600</u>	1.7%	<u>\$3,000</u>	1.7%	<u>\$3,200</u>	1.7%
Total Expense	\$18,400	12.3%	\$24,300	14.1%	\$32,600	17.2%
Operating Margin	(\$2,700)	-1.8%	(\$10,500)	-6.1%	(\$6,400)	-3.4%
Investment Income	\$22,500	15.0%	\$17,300	10.0%	\$22,800	12.0%
Other Income	<u>\$0</u>	0.0%	<u>\$0</u>	0.0%	<u>\$0</u>	0.0%
Total Other Income	\$22,500	15.0%	\$17,300	10.0%	\$22,800	12.0%
Operating Earnings Before Taxes	\$19,800	13.2%	\$6,800	3.9%	\$16,400	8.6%
Taxes	<u>\$7,500</u>	5.0%	<u>\$2,600</u>	1.5%	<u>\$6,200</u>	3.3%
Operating Earnings After Taxes	\$12,300	8.2%	\$4,200	2.4%	\$10,200	5.4%

**TABLE GLD-2
ACTUAL TO EXPECTED GROUP LIFE CLAIM RATES**

**Group Life Monthly Claim Rates
per \$1,000 of Coverage**

Age	Expected		Actual			
	M	F	M	2002 Volume (in \$1,000s)	F	2002 Volume (in \$1,000s)
15	0.160	0.089	0.148	\$248,800	0.084	\$154,500
20	0.124	0.035	0.110	\$1,847,300	0.032	\$1,261,800
25	0.094	0.027	0.089	\$3,056,900	0.024	\$3,163,400
30	0.085	0.041	0.078	\$4,854,100	0.037	\$4,567,500
35	0.100	0.054	0.091	\$5,744,500	0.050	\$5,837,700
40	0.153	0.084	0.137	\$6,947,100	0.079	\$3,966,400
45	0.275	0.120	0.264	\$6,382,800	0.114	\$3,949,900
50	0.449	0.230	0.436	\$5,240,400	0.216	\$1,931,500
55	0.829	0.341	0.743	\$3,023,300	0.316	\$652,700
60	1.159	0.499	1.039	\$1,074,700	0.479	\$127,900

TABLE GLD-3a
THREE YEAR FINANCIAL STATEMENT FOR GROUP LTD
(Amounts in \$1,000s)

	2000	% of Premium	2001	% of Premium	2002	% of Premium
Premium Income	\$100,000		\$115,000		\$126,500	
Paid Claims	\$75,000	75.0%	\$80,500	70.0%	\$101,200	80.0%
Increase in Actuarial Reserves	<u>\$3,800</u>	3.8%	<u>\$4,000</u>	3.5%	<u>\$9,700</u>	7.7%
Total Incurred Claims	\$78,800	78.8%	\$84,500	73.5%	\$110,900	87.7%
Dividends and Experience Rating Refunds	\$11,000	11.0%	<u>\$13,800</u>	12.0%	<u>\$12,700</u>	10.0%
Total Claims Expense	\$89,800	89.8%	\$98,300	85.5%	\$123,600	97.7%
Gross Margin	\$10,200	10.2%	\$16,700	14.5%	\$2,900	2.3%
General Administrative Expense	\$10,000	10.0%	\$12,700	11.0%	\$17,700	14.0%
Commissions	\$2,500	2.5%	\$2,900	2.5%	\$3,200	2.5%
Premium Taxes	<u>\$1,700</u>	1.7%	<u>\$2,000</u>	1.7%	<u>\$2,300</u>	1.8%
Total Expense	\$14,200	14.2%	\$17,600	15.3%	\$23,200	18.3%
Operating Margin	(\$4,000)	-4.0%	(\$900)	-0.8%	(\$20,300)	-16.0%
Investment Income	\$12,000	12.0%	\$10,400	9.0%	\$12,700	10.0%
Other Income	\$0	0.0%	<u>\$0</u>	0.0%	<u>\$0</u>	0.0%
Total Other Income	\$12,000	12.0%	\$10,400	9.0%	\$12,700	10.0%
Operating Earnings Before Taxes	\$8,000	8.0%	\$9,500	8.3%	(\$7,600)	-6.0%
Taxes	<u>\$3,000</u>	3.0%	<u>\$3,600</u>	3.1%	<u>(\$2,900)</u>	-2.3%
Operating Earnings After Taxes	\$5,000	5.0%	\$5,900	5.1%	(\$4,700)	-3.7%

TABLE GLD-3b
THREE YEAR FINANCIAL STATEMENT FOR INDIVIDUAL DI
(Amounts in \$1,000s)

	2000	% of Premium	2001	% of Premium	2002	% of Premium
Premium Income	\$15,200		\$16,900		\$18,800	
Paid Claims	\$7,600	50.0%	\$8,500	50.3%	\$9,400	50.0%
Increase in Actuarial Reserves	<u>\$8,300</u>	54.6%	<u>\$9,500</u>	56.2%	<u>\$10,800</u>	57.4%
Total Incurred Claims	\$15,900	104.6%	\$18,000	106.5%	<u>\$20,200</u>	107.4%
Dividends and Experience Rating Refunds	\$0	0.0%	\$0	0.0%	<u>\$0</u>	0.0%
Total Claims Expense	\$15,900	104.6%	\$18,000	106.5%	\$20,200	107.4%
Gross Margin	(\$700)	-4.6%	(\$1,100)	-6.5%	(\$1,400)	-7.4%
General Administrative Expense	\$3,200	21.1%	\$3,500	20.7%	\$3,900	20.7%
Commissions	\$1,500	9.9%	\$1,700	10.1%	\$1,900	10.1%
Premium Taxes	<u>\$300</u>	2.0%	<u>\$300</u>	1.8%	<u>\$400</u>	2.1%
Total Expense	\$5,000	32.9%	\$5,500	32.5%	\$6,200	33.0%
Operating Margin	(\$5,700)	-37.5%	(\$6,600)	-39.1%	(\$7,600)	-40.4%
Investment Income	\$8,700	57.2%	\$9,500	56.2%	\$10,100	53.7%
Other Income	<u>\$0</u>	0.0%	<u>\$0</u>	0.0%	<u>\$0</u>	0.0%
Total Other Income	\$8,700	57.2%	\$9,500	56.2%	\$10,100	53.7%
Operating Earnings Before Taxes	\$3,000	19.7%	\$2,900	17.2%	\$2,500	13.3%
Taxes	<u>\$1,100</u>	7.2%	<u>\$1,100</u>	6.5%	<u>\$1,000</u>	5.3%
Operating Earnings After Taxes	\$1,900	12.5%	\$1,800	10.7%	\$1,500	8.0%

TABLE GLD-4c
GROUP LTD CLAIM RUNOUT TRIANGLE AT 12/31/2002
(in \$1,000s)

Incurral Quarter	Earned Premium	Item	Quarter of Duration							
			0	1	2	3	4	5	6	7
1Q00	\$23,600	Claims Paid in Quarter	\$0	\$900	\$2,200	\$2,500	\$2,000	\$1,700	\$1,600	\$1,500
		Accumulated Paid Claims	\$0	\$900	\$3,100	\$5,600	\$7,600	\$9,300	\$10,900	\$12,400
		Open Claim Reserves	\$200	\$10,000	\$18,600	\$16,500	\$12,600	\$10,800	\$8,400	\$7,800
		Incurred But Not Reported Reserve	\$16,500	\$9,900	\$1,700	\$0	\$0	\$0	\$0	\$0
		Incurred Claims (Gross)	\$16,700	\$20,800	\$23,400	\$22,100	\$20,200	\$20,100	\$19,300	\$20,200
		Investment Credit @6%	\$0	\$100	\$100	\$100	\$100	\$100	\$0	\$0
		Accumulated Investment Credit	\$0	\$100	\$200	\$300	\$400	\$500	\$500	\$500
		Incurred Claims (Net)	\$16,700	\$20,700	\$23,200	\$21,800	\$19,800	\$19,600	\$18,800	\$19,700
		Interest Adjusted Incurred Loss Ratio	70.8%	87.7%	98.3%	92.4%	83.9%	83.1%	79.7%	83.5%
2Q00	\$24,500	Claims Paid in Quarter	\$0	\$900	\$2,300	\$2,700	\$2,200	\$1,800	\$1,700	\$1,600
		Accumulated Paid Claims	\$0	\$900	\$3,200	\$5,900	\$8,100	\$9,900	\$11,600	\$13,200
		Open Claim Reserves	\$200	\$10,700	\$20,600	\$17,800	\$13,800	\$11,400	\$9,100	\$8,400
		Incurred But Not Reported Reserve	\$17,200	\$10,300	\$1,700	\$0	\$0	\$0	\$0	\$0
		Incurred Claims (Gross)	\$17,400	\$21,900	\$25,500	\$23,700	\$21,900	\$21,300	\$20,700	\$21,600
		Investment Credit @6%	\$0	\$100	\$100	\$100	\$100	\$100	\$100	\$0
		Accumulated Investment Credit	\$0	\$100	\$200	\$300	\$400	\$500	\$600	\$600
		Incurred Claims (Net)	\$17,400	\$21,800	\$25,300	\$23,400	\$21,500	\$20,800	\$20,100	\$21,000
		Interest Adjusted Incurred Loss Ratio	71.0%	89.0%	103.3%	95.5%	87.8%	84.9%	82.0%	85.7%
3Q00	\$25,400	Claims Paid in Quarter	\$0	\$900	\$2,500	\$3,000	\$2,300	\$2,000	\$1,900	\$1,800
		Accumulated Paid Claims	\$0	\$900	\$3,400	\$6,400	\$8,700	\$10,700	\$12,600	\$14,400
		Open Claim Reserves	\$200	\$11,400	\$22,200	\$19,400	\$15,500	\$12,200	\$9,800	\$8,200
		Incurred But Not Reported Reserve	\$17,800	\$10,700	\$1,800	\$0	\$0	\$0	\$0	\$0
		Incurred Claims (Gross)	\$18,000	\$23,000	\$27,400	\$25,800	\$24,200	\$22,900	\$22,400	\$22,600
		Investment Credit @6%	\$0	\$100	\$100	\$100	\$100	\$100	\$100	\$0
		Accumulated Investment Credit	\$0	\$100	\$200	\$300	\$400	\$500	\$600	\$600
		Incurred Claims (Net)	\$18,000	\$22,900	\$27,200	\$25,500	\$23,800	\$22,400	\$21,800	\$22,000
		Interest Adjusted Incurred Loss Ratio	70.9%	90.2%	107.1%	100.4%	93.7%	88.2%	85.8%	86.6%
4Q00	\$26,400	Claims Paid in Quarter	\$0	\$900	\$2,300	\$2,900	\$2,200	\$2,000	\$1,900	\$1,700
		Accumulated Paid Claims	\$0	\$900	\$3,200	\$6,100	\$8,300	\$10,300	\$12,200	\$13,900
		Open Claim Reserves	\$200	\$11,200	\$22,800	\$19,900	\$15,300	\$12,100	\$10,500	\$8,200
		Incurred But Not Reported Reserve	\$18,500	\$11,100	\$1,900	\$0	\$0	\$0	\$0	\$0
		Incurred Claims (Gross)	\$18,700	\$23,200	\$27,900	\$26,000	\$23,600	\$22,400	\$22,700	\$22,100
		Investment Credit @6%	\$0	\$100	\$100	\$100	\$100	\$100	\$100	\$0
		Accumulated Investment Credit	\$0	\$100	\$200	\$300	\$400	\$500	\$600	\$600
		Incurred Claims (Net)	\$18,700	\$23,100	\$27,700	\$25,700	\$23,200	\$21,900	\$22,100	\$21,500
		Interest Adjusted Incurred Loss Ratio	70.8%	87.5%	104.9%	97.3%	87.9%	83.0%	83.7%	81.4%

TABLE GLD-4d
GROUP LTD CLAIM RUNOUT TRIANGLE AT 12/31/2002
(in \$1,000s)

Incurral Quarter	Earned Premium	Item	Quarter of Duration				
			8	9	10	11	12
1Q00	\$23,600	Claims Paid in Quarter	\$1,400	\$1,400	\$1,100	\$1,100	
		Accumulated Paid Claims	\$13,800	\$15,200	\$16,300	\$17,400	
		Open Claim Reserves	\$4,300	\$2,700	\$2,100	\$1,400	
		Incurred But Not Reported Reserve	\$0	\$0	\$0	\$0	
		Incurred Claims (Gross)	\$18,100	\$17,900	\$18,400	\$18,800	
		Investment Credit @6%	\$0	\$0	\$0	\$0	
		Accumulated Investment Credit	\$500	\$500	\$500	\$500	
2Q00	\$24,500	Incurred Claims (Net)	\$17,600	\$17,400	\$17,900	\$18,300	
		Interest Adjusted Incurred Loss Ratio	74.6%	73.7%	75.8%	77.5%	
3Q00	\$25,400	Claims Paid in Quarter	\$1,500	\$1,500	\$1,200	\$1,200	
		Accumulated Paid Claims	\$14,700	\$16,200	\$17,400	\$17,400	
		Open Claim Reserves	\$4,800	\$2,900	\$2,000	\$2,000	
		Incurred But Not Reported Reserve	\$0	\$0	\$0	\$0	
		Incurred Claims (Gross)	\$19,500	\$19,100	\$19,400	\$19,400	
		Investment Credit @6%	\$0	\$0	\$0	\$0	
		Accumulated Investment Credit	\$600	\$600	\$600	\$600	
4Q00	\$26,400	Incurred Claims (Net)	\$18,900	\$18,500	\$18,800	\$18,800	
		Interest Adjusted Incurred Loss Ratio	77.1%	75.5%	76.7%	76.7%	
1Q01	\$25,400	Claims Paid in Quarter	\$1,700	\$1,600	\$1,600	\$1,600	
		Accumulated Paid Claims	\$16,100	\$17,700	\$17,700	\$17,700	
		Open Claim Reserves	\$5,400	\$2,700	\$2,700	\$2,700	
		Incurred But Not Reported Reserve	\$0	\$0	\$0	\$0	
		Incurred Claims (Gross)	\$21,500	\$20,400	\$20,400	\$20,400	
		Investment Credit @6%	\$0	\$0	\$0	\$0	
		Accumulated Investment Credit	\$600	\$600	\$600	\$600	
2Q01	\$26,400	Incurred Claims (Net)	\$20,900	\$19,800	\$19,800	\$19,800	
		Interest Adjusted Incurred Loss Ratio	82.3%	78.0%	78.0%	78.0%	
3Q01	\$26,400	Claims Paid in Quarter	\$1,600	\$1,600	\$1,600	\$1,600	
		Accumulated Paid Claims	\$15,500	\$17,100	\$17,100	\$17,100	
		Open Claim Reserves	\$4,700	\$2,700	\$2,700	\$2,700	
		Incurred But Not Reported Reserve	\$0	\$0	\$0	\$0	
		Incurred Claims (Gross)	\$20,200	\$19,800	\$19,800	\$19,800	
		Investment Credit @6%	\$0	\$0	\$0	\$0	
		Accumulated Investment Credit	\$600	\$600	\$600	\$600	
4Q01	\$26,400	Incurred Claims (Net)	\$19,600	\$19,600	\$19,600	\$19,600	
		Interest Adjusted Incurred Loss Ratio	74.2%	74.2%	74.2%	74.2%	

**TABLE GLD-5
INCIDENCE OF GROUP LTD CLAIMS STATISTICS BY INCURRAL QUARTER**

	1Q00	2Q00	3Q00	4Q00
# Incurred Claims	443	483	526	601
Annualized Exposure in Lives	600,150	622,656	646,005	670,230
Annualized Claims per 1,000 Lives	2.95	3.10	3.26	3.58
Expected Claims Per 1,000 Lives	3.50	3.50	3.50	3.50
Actual/Expected	84.4%	88.6%	93.1%	102.6%

	1Q01	2Q01	3Q01	4Q01
# Incurred Claims	748	853	841	916
Annualized Exposure in Lives	695,364	721,440	748,494	776,563
Annualized Claims per 1,000 Lives	4.30	4.73	4.49	4.72
Expected Claims Per 1,000 Lives	3.50	3.50	3.50	3.50
Actual/Expected	123.0%	135.2%	128.4%	134.9%

	1Q02	2Q02	3Q02	4Q02
# Incurred Claims	998	984	714	185
Annualized Exposure in Lives	805,684	835,897	867,243	899,765
Annualized Claims per 1,000 Lives	4.96	4.71	3.30	0.82
Expected Claims Per 1,000 Lives	3.50	3.50	3.50	3.50
Actual/Expected	141.6%	134.6%	94.1%	23.5%

TABLE GLD-6a
EXPECTED GROUP LTD INCIDENCE RATES

Group LTD Pricing Model
GLTD Annual incidence Rates /1,000 Lives

Age	Male			Female		
	3-month	6-month	12-month	3-month	6-month	12-month
22	1.48	0.80	0.51	1.88	1.00	0.76
27	1.57	0.89	0.59	2.04	1.16	0.98
32	1.80	1.05	0.75	2.66	1.55	1.34
37	2.34	1.37	1.03	3.95	2.32	2.21
42	3.33	2.02	1.59	5.02	3.05	3.35
47	5.38	3.56	2.92	7.00	4.63	3.79
52	8.97	6.62	5.57	9.87	7.28	6.68
57	15.04	11.87	10.01	13.54	10.68	9.51
62	21.33	16.71	13.45	16.00	12.53	10.09

TABLE GLD-6b
EXPECTED IDI INCIDENCE RATES

IDI Pricing Model
IDI Annual incidence Rates /1,000 Lives

Age	Male			Female		
	3-month	6-month	12-month	3-month	6-month	12-month
22	4.19	N/A	N/A	6.11	N/A	N/A
27	4.37	N/A	N/A	7.52	N/A	N/A
32	4.54	N/A	N/A	8.93	N/A	N/A
37	5.38	N/A	N/A	10.66	N/A	N/A
42	7.23	N/A	N/A	12.85	N/A	N/A
47	10.25	N/A	N/A	15.07	N/A	N/A
52	15.03	N/A	N/A	17.30	N/A	N/A
57	20.92	N/A	N/A	19.96	N/A	N/A
62	28.44	N/A	N/A	23.24	N/A	N/A

TABLE GLD-8a
BASIC GLTD TABLE - TERMINATION FROM DISABLEMENT RATES

Death & Recovery - Males

Duration of Disablement	Age at Disablement								
	22	27	32	37	42	47	52	57	62
<i>6-month elimination period</i>									
6 months *	0.80	0.89	1.05	1.37	2.02	3.56	6.62	11.87	16.71
7 months	0.07	0.06	0.05	0.04	0.04	0.03	0.03	0.02	0.02
8 months	0.07	0.06	0.05	0.05	0.04	0.04	0.03	0.02	0.02
9 months	0.06	0.06	0.05	0.04	0.04	0.03	0.03	0.02	0.01
10 months	0.06	0.05	0.04	0.04	0.03	0.03	0.02	0.02	0.01
11 months	0.05	0.05	0.04	0.03	0.03	0.03	0.02	0.02	0.01
12 months	0.05	0.04	0.04	0.03	0.03	0.02	0.02	0.02	0.01
First Year Annualized	0.31	0.28	0.24	0.21	0.19	0.17	0.14	0.11	0.07
13 months	0.04	0.04	0.03	0.03	0.02	0.02	0.02	0.01	0.01
14 months	0.04	0.04	0.03	0.03	0.02	0.02	0.02	0.01	0.01
15 months	0.04	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.01
16 months	0.03	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.01
17 months	0.03	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.01
18 months	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01
19 months	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01
20 months	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.00
21 months	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.00
22 months	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.00
23 months	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.00
24 months	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.00
Second Year Annualized	0.30	0.27	0.24	0.22	0.19	0.17	0.14	0.11	0.06
3rd year	0.20	0.18	0.16	0.14	0.12	0.10	0.09	0.07	0.06
4th year	0.14	0.12	0.10	0.08	0.07	0.06	0.05	0.05	0.05
5th year	0.11	0.09	0.08	0.06	0.05	0.05	0.05	0.05	0.05
6th year	0.08	0.07	0.06	0.05	0.05	0.04	0.04	0.05	0.05
7th year	0.06	0.06	0.05	0.05	0.04	0.04	0.04	0.04	0.05
8th year	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.05
9th year	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.05
10th year	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.06
11th year	0.02	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.07
12th year	0.02	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.07
13th year	0.02	0.03	0.03	0.03	0.04	0.04	0.04	0.06	0.08
14th year	0.02	0.03	0.03	0.03	0.04	0.04	0.04	0.06	0.08
15th year	0.03	0.03	0.03	0.03	0.04	0.04	0.05	0.06	0.09
16th year	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.07	0.10
17th year	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.07	0.11
18th year	0.03	0.03	0.03	0.04	0.04	0.04	0.06	0.08	0.11
19th year	0.03	0.03	0.03	0.04	0.04	0.04	0.06	0.08	0.12
20th year	0.03	0.03	0.03	0.04	0.04	0.05	0.06	0.09	0.13
21st year	0.03	0.03	0.04	0.04	0.04	0.05	0.07	0.10	0.14
22nd year	0.03	0.03	0.04	0.04	0.04	0.05	0.07	0.11	0.15
23rd year	0.03	0.03	0.04	0.04	0.04	0.06	0.08	0.11	0.16
24th year	0.03	0.03	0.04	0.04	0.04	0.06	0.08	0.12	0.18
25th year	0.03	0.03	0.04	0.04	0.05	0.06	0.09	0.13	0.19
26th year	0.03	0.04	0.04	0.04	0.05	0.07	0.10	0.14	0.20
27th year	0.03	0.04	0.04	0.04	0.05	0.07	0.11	0.15	0.22
28th year	0.03	0.04	0.04	0.04	0.06	0.08	0.11	0.16	0.24
29th year	0.03	0.04	0.04	0.04	0.06	0.08	0.12	0.18	0.25
30th year	0.03	0.04	0.04	0.05	0.06	0.09	0.13	0.19	0.27
31st year	0.04	0.04	0.04	0.05	0.07	0.10	0.14	0.20	0.29
32nd year	0.04	0.04	0.04	0.05	0.07	0.11	0.15	0.22	0.31
33rd year	0.04	0.04	0.04	0.06	0.08	0.11	0.16	0.24	0.33
34th year	0.04	0.04	0.04	0.06	0.08	0.12	0.18	0.25	0.35
35th year	0.04	0.04	0.05	0.06	0.09	0.13	0.19	0.27	0.37
36th year	0.04	0.04	0.05	0.07	0.10	0.14	0.20	0.29	0.39
37th year	0.04	0.04	0.05	0.07	0.11	0.15	0.22	0.31	0.41
38th year	0.04	0.04	0.06	0.08	0.11	0.16	0.24	0.33	0.44

* rate of disablement after a six-month elimination period per 1,000 covered lives

TABLE GLD-8b
BASIC IDI TABLE - TERMINATION FROM DISABLEMENT RATES

Death & Recovery - Males

Duration of Disablement	Age at Disablement								
	22	27	32	37	42	47	52	57	62
	<i>3-month elimination period</i>								
3 months *	4.19	4.37	4.54	5.38	7.23	10.25	15.03	20.92	28.44
4 months	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.06
5 months	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.05
6 months	0.08	0.08	0.08	0.08	0.07	0.07	0.06	0.06	0.06
7 months	0.08	0.08	0.08	0.08	0.07	0.07	0.06	0.06	0.05
8 months	0.08	0.08	0.08	0.07	0.07	0.06	0.06	0.06	0.05
9 months	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.04	0.04
10 months	0.06	0.06	0.06	0.05	0.05	0.04	0.04	0.03	0.03
11 months	0.06	0.06	0.05	0.05	0.05	0.04	0.03	0.03	0.02
12 months	0.06	0.06	0.05	0.05	0.04	0.04	0.03	0.03	0.02
First Year Annualized	0.49	0.48	0.47	0.45	0.43	0.41	0.38	0.35	0.31
13 months	0.06	0.06	0.05	0.05	0.04	0.04	0.03	0.02	0.02
14 months	0.06	0.06	0.05	0.05	0.04	0.03	0.03	0.02	0.02
15 months	0.06	0.06	0.05	0.04	0.04	0.03	0.03	0.02	0.02
16 months	0.06	0.06	0.05	0.04	0.03	0.03	0.02	0.02	0.02
17 months	0.05	0.05	0.04	0.04	0.03	0.03	0.02	0.02	0.01
18 months	0.05	0.05	0.04	0.03	0.03	0.02	0.02	0.01	0.01
19 months	0.05	0.05	0.04	0.03	0.02	0.02	0.01	0.01	0.01
20 months	0.05	0.04	0.03	0.03	0.02	0.02	0.01	0.01	0.01
21 months	0.04	0.04	0.03	0.02	0.02	0.01	0.01	0.01	0.01
22 months	0.04	0.04	0.03	0.02	0.02	0.01	0.01	0.01	0.01
23 months	0.04	0.04	0.03	0.02	0.02	0.01	0.01	0.01	0.01
24 months	0.04	0.04	0.03	0.02	0.01	0.01	0.01	0.01	0.01
Second Year Annualized	0.46	0.44	0.39	0.33	0.28	0.23	0.19	0.16	0.16
3rd year	0.38	0.35	0.26	0.20	0.16	0.13	0.11	0.10	0.09
4th year	0.21	0.19	0.15	0.12	0.10	0.08	0.08	0.07	0.08
5th year	0.14	0.13	0.10	0.08	0.07	0.07	0.06	0.07	0.08
6th year	0.08	0.07	0.06	0.05	0.05	0.05	0.05	0.06	0.07
7th year	0.05	0.05	0.05	0.04	0.04	0.04	0.05	0.06	0.08
8th year	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.06	0.09
9th year	0.03	0.03	0.03	0.03	0.04	0.04	0.05	0.07	0.09
10th year	0.03	0.03	0.03	0.03	0.04	0.04	0.06	0.07	0.10
11th year	0.03	0.03	0.03	0.03	0.04	0.05	0.06	0.09	0.14
12th year	0.03	0.03	0.03	0.03	0.04	0.05	0.07	0.10	0.15
13th year	0.03	0.03	0.03	0.03	0.04	0.05	0.07	0.10	0.16
14th year	0.03	0.03	0.03	0.04	0.04	0.06	0.07	0.11	0.17
15th year	0.03	0.03	0.03	0.04	0.05	0.06	0.08	0.12	0.19
16th year	0.03	0.03	0.03	0.04	0.05	0.06	0.08	0.13	0.20
17th year	0.03	0.03	0.03	0.04	0.05	0.07	0.09	0.14	0.22
18th year	0.03	0.03	0.03	0.04	0.05	0.07	0.10	0.15	0.23
19th year	0.03	0.03	0.04	0.04	0.06	0.07	0.10	0.16	0.25
20th year	0.03	0.03	0.04	0.05	0.06	0.08	0.11	0.17	0.27
21st year	0.03	0.03	0.04	0.05	0.06	0.08	0.12	0.18	0.29
22nd year	0.03	0.03	0.04	0.05	0.07	0.09	0.13	0.20	0.31
23rd year	0.03	0.03	0.04	0.05	0.07	0.10	0.14	0.21	0.34
24th year	0.03	0.04	0.04	0.06	0.07	0.10	0.15	0.23	0.36
25th year	0.03	0.04	0.05	0.06	0.08	0.11	0.16	0.24	0.39
26th year	0.03	0.04	0.05	0.06	0.08	0.12	0.17	0.26	0.41
27th year	0.04	0.04	0.05	0.07	0.09	0.13	0.18	0.28	0.44
28th year	0.04	0.04	0.05	0.07	0.10	0.14	0.20	0.30	0.47
29th year	0.04	0.04	0.06	0.07	0.10	0.15	0.21	0.32	0.50
30th year	0.04	0.05	0.06	0.08	0.11	0.16	0.23	0.35	0.54
31st year	0.04	0.05	0.06	0.08	0.12	0.17	0.25	0.37	0.57
32nd year	0.04	0.05	0.07	0.09	0.13	0.18	0.26	0.40	0.60
33rd year	0.05	0.05	0.07	0.10	0.14	0.20	0.28	0.42	0.64
34th year	0.05	0.06	0.07	0.10	0.15	0.21	0.31	0.45	0.67
35th year	0.05	0.06	0.08	0.11	0.16	0.23	0.33	0.48	0.73
36th year	0.05	0.06	0.08	0.12	0.17	0.24	0.35	0.52	0.81
37th year	0.06	0.07	0.09	0.13	0.18	0.26	0.38	0.56	0.90
38th year	0.06	0.07	0.10	0.14	0.20	0.28	0.40	0.59	1.00

* rate of disablement after a three-month elimination period per 1,000 covered lives.