## TRANSACTIONS OF SOCIETY OF ACTUARIES 1977 REPORTS

#### II. GROUP LONG-TERM DISABILITY INSURANCE

ATTENTION is directed to the following revisions and additions that have been made in the "Analysis of Rates of Disablement" section of this year's report:

- 1. The basis on which the actual-to-tabular ratios are determined for Tables 1B, 1C, 4-10, and I and for Exhibit I has been changed. The tabular claims are now derived by applying to the actual exposures for each age and each sex group (i.e., male, female, and unknown) combination the corresponding age-sex disablement rates based on the experience shown in Tables 1A, 2, and 3 for plans with elimination periods of six, three, and twelve months, respectively.
- 2. Table 1D, which analyzes the number of claims by diagnosis, has been added.
- Table 5 has been revised to include the subtotal categories "majority hourly" and "majority salaried."
- 4. The format of Table 5A has been revised. A "number of claims" column has been added to the "all experience units" portion of the table.
- 5. Table 6A, which analyzes the experience of "hourly" versus "salaried" groups by industry, has been added.
- 6. Table 6B, which compares the actual-to-tabular ratios shown in Tables 6 and 6A, has been added.

The reader also should note that Tables D-3, D-3A, D-3B, D-3C, D-3D, and D-3E, which analyze the disabled lives experience on plans with a twelve-month elimination period, have been added to the "Analysis of Rates of Termination" section.

The experience included in this report is predominantly that of employer-employee groups located in the United States and is largely for plans that appear not to have been the result of bargaining. Groups that a contributing company considers atypical are excluded. Plans selected for the study provide occupational as well as nonoccupational coverage, but with benefits integrated with workmen's compensation. Virtually all the cases contributed also provide that the gross monthly benefits be integrated with some or all of any social security benefits and frequently with other benefits payable as a result of the disability. Benefits are payable only on claims incurred prior to age 65 and generally cease at age 65.

The Committee recommends that care be used in the interpretation of the results of this study and in their application on other than a broad basis, since a considerable volume of exposure shown in the tables could not be coded with respect to certain characteristics that may influence the level of rate of disablement or termination. In addition, the experience may not be representative of any particular group or plan.

The early experience years of the studies cover r period relatively free from severe economic disturbances. However, experience of at least two of the more recent years (1971 and 1975) overlaps periods of economic recession.

#### CONTRIBUTING COMPANIES

Thirteen companies have contributed experience for the investigation covered in this report. The results reflect the composite experience of variations in company practices, administration, and claim procedures, as well as variations in experience among the groups.

Aetna Life and Casualty Company
Bankers Life Company
Connecticut General Life Insurance Company
Continental Assurance Company
Continental Casualty Company
Equitable Life Assurance Society
John Hancock Mutual Life Insurance Company
Metropolitan Life Insurance Company
New England Mutual Life Insurance Company
New York Life Insurance Company
Provident Life & Accident Insurance Company
Prudential Insurance Company of America
Sun Life Assurance Company of Canada

#### ANALYSIS OF RATES OF DISABLEMENT

Many of the tables appearing in this section, specifically Tables 1B, 1C, 4–10, and I, include a column that shows the "number of experience units." An experience unit represents the experience of a single group for one calendar year. Therefore, for an experience cell that covers more than one calendar year of experience, a group would be included in the count of the number of experience units for the total number of separate calendar years for which experience was submitted. Furthermore, where the number of experience units in a cell is relatively small and no distinction is made by size, the experience for that cell could be influenced substantially by the experience of but a few groups and, as such, may not be representative of all units in that cell.

In analyzing the various tables shown in this section of the report, the reader should note that the claim experience shown may be understated as a result of a lag in the reporting of claims incurred in the latest year

of the study. Historically, the lag on plans with a six-month elimination period has been about 5 percent. However, in this report it appears that the reporting lag on claims incurred in 1974 on plans with a six-month elimination period was about 20 percent (i.e., for claims reported as incurred in 1974 on plans with a six-month elimination period, the number included in the current report is about 20 percent higher than the number included in last year's report). Consequently, the tabular claims, the number of claims, the rates of disablement, and the actual-to-tabular ratios may be distorted for some age and sex cells.

Table 1 is based on the experience of all size groups for the period 1971-75 on plans with a six-month elimination period. Crude rates of disablement based on number of lives are shown by sex and age group. The corresponding experience of nonjumbo groups, defined as groups with less than 5,000 lives insured, is displayed in Table 1A. Experience of the calendar year of issue is excluded from both tables and therefore from all subsequent tables that analyze the underlying experience. About 17 percent of the exposure contributed could not be separated by sex. The first part of each of these two tables summarizes the experience for male, female, and sex-unknown exposure combined. The experience for which exposure was sex-coded is presented in the bottom two sections of each table.

Tables 2 and 3 are similar to Table 1 but are based on the experience of plans with a three-month and a twelve-month elimination period, respectively.

Attention is called to the small number of claims underlying the disablement rate for some of the sex-age cells, especially for plans with three-and twelve-month elimination periods.

The experience is based largely on a "his own occupation" definition of disability generally during the first two years following disablement. For plans with either a three- or a six-month elimination period, however, about 3 percent of the experience is based on an "any occupation" definition for the full period of disability. For plans with a twelve-month elimination period, approximately 7 percent of the experience uses the "any occupation" definition.

Claims were reported and included in rates of disablement, even though, because of the existence of social security or other disability income under plans with an offset provision, no benefit may have been payable.

For the plans with a six-month elimination period, accidents accounted for approximately 9 percent of the claims coded for a known cause of disablement. The corresponding figures for plans with three-month and twelve-month elimination periods are 15 and 8 percent, respectively.

#### TABLE 1

#### GROUP LONG-TERM DISABILITY INSURANCE CRUDE RATES OF DISABLEMENT PER 1,000 LIVES EXPOSED

#### (Six-Month Elimination Period; Calendar Year of Issue Excluded) Calendar Years of Experience 1971-75 ALL EXPERIENCE UNITS COMBINED

| Attained Age   | Life Years<br>Exposed   | Number of<br>Claims                                   | Rate of<br>Disablement<br>per 1,000<br>Lives   |
|--|---|---|--|
|  |   | ience: Males, Fei<br>nd Sex Unknown                   | males,   |
| Under 40   | 1,744,113<br>418,077<br>421,547<br>365,311<br>278,661                       | 1,591<br>849<br>1,511<br>2,255<br>2,995               | 0.91<br>2.03<br>3.58<br>6.17<br>10.75          |
| 60-64  | 181,869<br>3,409,578  | 2,541   | 3.44   |
|  | Ma  | le Experience On                                      | ıly  |
| Under 40.<br>40-44.<br>45-49.<br>50-54.<br>55-59.<br>60-64.<br>All ages. | 959,315<br>254,680<br>253,926<br>218,504<br>171,523<br>112,055<br>1,970,003 | 813<br>449<br>858<br>1,397<br>1,989<br>1,739<br>7,245 | 0.85<br>1.76<br>3.38<br>6.39<br>11.60<br>15.52 |
|  | Fem   | ale Experience C                                      | nly  |
| Under 40.<br>40-44.<br>45-49.<br>50-54.<br>55-59.<br>60-66.              | 481,270<br>87,495<br>95,490<br>87,480<br>63,239<br>41,935                   | 498<br>260<br>392<br>516<br>567<br>427                | 1.03<br>2.97<br>4.11<br>5.90<br>8.97<br>10.18  |
| All ages   | 856,909   | 2,660   | 3.10   |

#### TABLE 1A

#### GROUP LONG-TERM DISABILITY INSURANCE CRUDE RATES OF DISABLEMENT PER 1,000 LIVES EXPOSED

#### (Six-Month Elimination Period; Calendar Year of Issue Excluded) Calendar Years of Experience 1971-75

NONJUMBO EXPERIENCE UNITS ONLY

| Attained Age | Life Years<br>Exposed   | Number of<br>Claims                        | Rate of<br>Disablement<br>per 1,000<br>Lives   |
|--------------|---|--|--|
|              |   | erience: Males, Fond Sex Unknown           | emales,  |
| Under 40     | 1,248,357<br>300,720<br>304,951                               | 1,155<br>614<br>1,052                      | 0.93<br>2.04<br>3.45                           |
| 50–54        | 267,552<br>204,747<br>130,478                                 | 1,555<br>2,089<br>1,844                    | 5.81<br>10.20<br>14.13                         |
| All ages     | 2,456,805   | 8,309                                      | 3.38   |
|              | Ма  | le Experience On                           | ly   |
| Under 40     | 688,843<br>181,184<br>180,228<br>157,004<br>121,523<br>77,791 | 584<br>317<br>560<br>894<br>1,313<br>1,186 | 0.85<br>1.75<br>3.11<br>5.69<br>10.80<br>15.25 |
| All ages     | 1,406,573   | 4,854                                      | 3.45   |
|              | Fem   | ale Experience O                           | nly  |
| Under 40     | 297,727<br>56,183<br>64,727<br>60,882<br>45,418<br>27,620     | 300<br>166<br>252<br>338<br>383<br>309     | 1.01<br>2.95<br>3.89<br>5.55<br>8.43<br>11.19  |
| All ages     | 552,557   | 1,748                                      | 3.16   |

Table 1B analyzes by underlying calendar year of experience the crude rates of disablement shown in Tables 1 and 1A, respectively, for all ages and for males, females, and sex-unknown exposures combined. Some portion of the variation in the overall disablement rate from year to year is the result of changes in the distributions of exposed to risk by age groups.

The reader is reminded that the lag in claim reporting tends to under-

TABLE 1B

#### GROUP LONG-TERM DISABILITY INSURANCE ANALYSIS OF RATES OF DISABLEMENT BY CALENDAR YEAR OF INCURRAL

| Calendar             | Number                     | Life                          | Ne                | MBER OF L               | AIMS                    | RATE OF<br>DISABLE-  | RATHU DE                    |
|----------------------|----------------------------|-------------------------------|-------------------|-------------------------|-------------------------|----------------------|-----------------------------|
| YEAR OF<br>INCURRAL  | OF EX<br>PERIENCE<br>Units | YEARS<br>EXPOSED              | Acci-<br>dent     | Sickness                | Total. (Incl. Unknown)  | MENT PER 1,000 LIVES | CLAIMS TO TARU- LAR CLAIMS* |
|                      |                            | A                             | ll Experie        | nce Units               | Combined                |                      |                             |
| 1962–65              | 602<br>4,923               | 329,341<br>1,943,451          | 47<br>499         | 632<br>4,618            | 858<br>6,174            | 2.61<br>3.18         | 82%<br>96                   |
| 1971                 | 1,688 2,257                | 528,068<br>628,019            | 202<br>203<br>233 | 1,953<br>1,952          | 2,174<br>2,164<br>2,534 | 4.12<br>3.45<br>3.50 | 121%<br>101<br>104          |
| 1973<br>1974<br>1975 | 2,183<br>2,177<br>2,089    | 722,974<br>731,467<br>799,050 | 194<br>194        | 2,298<br>2,364<br>2,067 | 2,534<br>2,568<br>2,302 | 3.51<br>2.88         | 103<br>89                   |
| 1971-75              | 10,394                     | 3,409,578                     | 1,026             | 10,634                  | 11,742                  | 3.44                 | 103%                        |
|                      |                            | No                            | onjumbo H         | Experience 1            | Units Only              |                      |                             |
| 1962-65<br>1966-70   | 588<br>4,853               | 144,381<br>1,258,362          | 13<br>315         | 236<br>2,717            | 298<br>3,763            | 2.06<br>2.99         | 63%<br>87                   |
| 1971                 | 1,675<br>2,239             | 417,912<br>456,834            | 173<br>156        | 1,447                   | 1,630<br>1,495          | 3.90<br>3.27         | 114%<br>95                  |
| 1973                 | 2,159<br>2,157<br>2,067    | 497,123<br>538,335<br>546,601 | 160<br>146<br>139 | 1,523<br>1,719<br>1,473 | 1,685<br>1,875<br>1,624 | 3.39<br>3.48<br>2.97 | 101<br>104<br>89            |
| 1971–75              | 10,297                     | 2,456,805                     | 774               | 7,493                   | 8,309                   | 3.38                 | 100%                        |

<sup>\*</sup> Tabular claims were calculated by applying to the actual age-sex-group exposures the crude rates of disablement shown in Table 1A.

state the claim experience shown in the various tables presented in this report. In particular, if past reporting lag is any indication of the extent of claim underreporting, the figures in Table 1B of claims reported as incurred for the most recent calendar year, 1975, may be understated from 5 to 20 percent.

Table 1B also shows ratios of actual claims to tabular claims. The tabular claims for each year were obtained by applying the rates of dis-

TABLE 1B-1

#### GROUP LONG-TERM DISABILITY INSURANCE ANALYSIS OF RATES OF DISABLEMENT BY CALENDAR YEAR OF INCURRAL

|                                      | Number                                    |   | Nu                              | mber of Ci                                | AIMS.                                     | RATE OF                                | RATIO OF                             |
|--------------------------------------|---|---|---------------------------------|---|---|--|--------------------------------------|
| CALENDAR<br>YEAR OF<br>INCUREAL      | OF EX-<br>PERIENCE<br>UNITS               | LIFE<br>YEARS<br>EXPOSED                            | Acci-<br>dent                   | Sickness                                  | Total<br>(Incl.<br>Unknown)               | DISABLE-<br>MENT PER<br>1,000<br>LIVES | CLAIMS<br>TO TABU-<br>LAR<br>CLAIMS* |
|                                      |   | A   | ll Experie                      | nce Units (                               | Combined                                  |  |                                      |
| 1962–65<br>1966–70                   | 602<br>4,923                              | 329,341<br>1,943,451                                | 47<br>499                       | 632<br>4,618                              | 858<br>6,174                              | 2.61<br>3.18                           | 85%<br>98                            |
| 1971                                 | 1,688<br>2,257<br>2,183<br>2,177<br>2,089 | 528,068<br>628,019<br>722,974<br>731,467<br>799,050 | 202<br>203<br>233<br>194<br>194 | 1,953<br>1,952<br>2,298<br>2,364<br>2,067 | 2,174<br>2,164<br>2,534<br>2,568<br>2,302 | 4.12<br>3.45<br>3.50<br>3.51<br>2.88   | 121%<br>101<br>103<br>103<br>89      |
| 1971-75                              | 10,394                                    | 3,409,578   | 1,026                           | 10,634                                    | 11,742                                    | 3.44                                   | 102%                                 |
|                                      |   | N   | Ionjumbo                        | Experience                                | Units Only                                |  | ·                                    |
| 1962–65<br>1966–70                   | 588<br>4,853                              | 144,381<br>1,258,362                                | 13<br>315                       | 236<br>2,717                              | 298<br>3,763                              | 2.06<br>2.99                           | 65%<br>89                            |
| 1971<br>1972<br>1973<br>1974<br>1975 | 1,675<br>2,239<br>2,159<br>2,157<br>2,067 | 417,912<br>456,834<br>497,123<br>538,335<br>546,601 | 173<br>156<br>160<br>146<br>139 | 1,447<br>1,331<br>1,523<br>1,719<br>1,473 | 1,630<br>1,495<br>1,685<br>1,875<br>1,624 | 3.90<br>3.27<br>3.39<br>3.48<br>2.97   | 114%<br>95<br>101<br>104<br>89       |
| 1971-75                              | 10,297                                    | 2,456,805   | 774                             | 7,493                                     | 8,309                                     | 3.38                                   | 100%                                 |

<sup>\*</sup>Tabular claims were calculated by applying to the actual age-group exposures the crude rates of disablement shown in Table 1A for males, females, and sex unknown combined.

TABLE 1C

RATES OF DISABLEMENT AND RATIOS OF ACTUAL CLAIMS TO TABULAR CLAIMS, BY SIZE OF EXPERIENCE UNIT EXPOSED

(Six-Month Elimination Period; Calendar Year of Issue Excluded; All Ages; Males, Females, and Sex Unknown Combined)

Calendar Years of Experience 1971-75

ALL EXPERIENCE UNITS COMBINED

|     |                | Number                    |                       |                     | RATE OF                             | Average       | Numbe | R OF EXP  | erience Ui | NITS BY RA  | тю от Ас     | TUAL TO T    | 'abular C    | Claims*         |
|-----|----------------|---------------------------|-----------------------|---------------------|-------------------------------------|---------------|-------|-----------|------------|-------------|--------------|--------------|--------------|-----------------|
|     | Size of Unit   | OF<br>Experience<br>Units | LIFE YEARS<br>Exposed | Number of<br>Claims | DISABLE-<br>MENT PER<br>1,000 LIVES | A/T<br>Ratio* | U4.   | 1<br>50%. | 50-<br>75% | 75-<br>100% | 100-<br>150% | 150-<br>200% | 200-<br>500% | 500%<br>or More |
| 214 | Under 25 lives | 1,783                     | 23,063                | 66                  | 2.86                                | 83%           | 1,726 | 0         | 0          | 0           | 0            | 0            | 0            | 57              |
| -   | 25–49          | 2,012                     | 74,353                | 235                 | 3.16                                | 84            | 1,812 | ()        | 0          | 0           | 0            | 0            | 38           | 162             |
|     | 50-99          | 2,322                     | 163,427               | 538                 | 3.29                                | 93            | 1.894 | 0 '       | 0          | 0           | 0            | 10           | 270          | 148             |
|     | 100-249        | 2,181                     | 335,794               | 1,258               | 3.75                                | 108           | 1.426 | 0         | 2          | 20          | 129          | 129          | 381          | 94              |
|     | 250-499        | 919                       | 319,347               | 980                 | 3.07                                | 90            | 410   | 11        | 85         | 87          | 118          | 67           | 127          | 14              |
|     | 500-999        | 527                       | 363,140               | 1,289               | 3.55                                | 108           | 116   | 61        | 76         | 56          | 77           | 52           | 82           | 7               |
|     | 1,000-2,499    |                           | 642,884               | 2,169               | 3.37                                | 104           | 53    | 71        | 62         | 46          | 68           | 45           | 53           | 2               |
|     | 2,500-4,999    | 153                       | 534,797               | 1,774               | 3.32                                | 97            | 11    | 34        | 15         | 30          | 32           | 18           | 13           | 0               |
|     | Under 5,000    | 10,297                    | 2,456,805             | 8,309               | 3.38                                | 100%          | 7,448 | 177       | 240        | 239         | 424          | 321          | 964          | 484             |
|     | 5,000 or more  | 97                        | 952,773               | 3,433               | 3.60                                | 109%          | 2     | 13        | 11         | 15          | 30           | 17           | 9            | 0               |
|     | Total          | 10,394                    | 3,409,578             | 11,742              | 3.44                                | 103%          | 7,450 | 190       | 251        | 254         | 454          | 338          | 973          | 484             |

<sup>\*</sup> Tabular claims were calculated by applying to the actual age-sex-group exposures the crude rates of disablement shown in Table 1A.

#### TABLE 1D

## GROUP LONG-TERM DISABILITY INSURANCE DISTRIBUTION OF NUMBER OF CLAIMS BY DIAGNOSIS

#### (Six-Month Elimination Period; Calendar Year of Issue Excluded) Calendar Years of Experience 1962-75

#### ALL EXPERIENCE UNITS COMBINED

| İ  |             |           |         | M         | LE       |          |             |             |             |          |          | Fem       | IALE      |           |           |             |             | Mai       | LE AND    | FEMA      | LE Co       | MBINE       | 0           |             |
|--|-------------|-----------|---------|-----------|----------|----------|-------------|-------------|-------------|----------|----------|-----------|-----------|-----------|-----------|-------------|-------------|-----------|-----------|-----------|-------------|-------------|-------------|-------------|
| DIAGNOSIS  | Under<br>30 | 30–39     | 40–44   | 45-49     | 50-54    | 55-59    | 60-64       | All<br>Ages | Under<br>30 | 30-39    | 40-44    | 45-49     | 50-54     | 55-59     | 60-64     | All<br>Ages | Under<br>30 | 30–39     | 40–44     | 45-49     | 50-54       | 55-59       | 60-64       | All<br>Ages |
| Infective and parasitic diseases: Number Percent Malignant neoplasms (cancer):                   | 4           | 6         | 10<br>1 | 7<br>0    | 14<br>1  | 9        |             | 58<br>0     | 4           | 1 0      | 0        | 2 0       | 2 0       | 2<br>0    | 3         | 14          | 8           | 7<br>0    | 10        | 9         | 16<br>0     | 11<br>0     | 11<br>0     | 7           |
| Number Percent Benign and unspecified neo-   | 20<br>3     | 51<br>5   | 48<br>5 | 121<br>7  | 185<br>7 | 275<br>8 | 230<br>7    | 930<br>7    | 12<br>3     | 39<br>7  | 42<br>7  | 86<br>11  | 113<br>12 | 126<br>12 | 74<br>10  | 492<br>10   |             | 90<br>6   | 90<br>6   | 207<br>8  | 298<br>9    | 401<br>9    | 304<br>8    | 1,42        |
| plasms:<br>Number<br>Percent<br>Allergic, endocrine-system, met-<br>abolic, and nutritional dis- | 4<br>1      | 6         | 11<br>1 | 13<br>1   | 12<br>0  | 14<br>0  |             | 70<br>1     | 4<br>1      | 8<br>1   | 9 2      | 9<br>1    | 6<br>1    | 14<br>1   | 4         | 54<br>1     | 8           | 14<br>1   | 20<br>1   | 22<br>1   | 18<br>1     | 28<br>1     | 14<br>0     | 12          |
| eases: Number Percent Diseases of the blood and blood- forming organs:                           | 7<br>1      | 18        | 13<br>1 | 28<br>2   | 42<br>2  | 68<br>2  | 64<br>2     | 240<br>2    | 9<br>3      | 3<br>1   | 5<br>1   | 14<br>2   | 18        | 19<br>2   | 17<br>2   | 85<br>2     | 16<br>2     | 21<br>1   | 18        | 42<br>2   | 60<br>2     | 87<br>2     | 81<br>2     | 32          |
| Number Percent Mental, osychoneurotic, and personality disorders:                                | 9<br>2      | 13<br>1   | 18<br>2 | 28<br>2   | 40<br>2  | 55<br>2  |             | 220<br>2    | 8 2         | 7<br>1   | 12<br>2  | 12<br>2   | 18<br>2   | 20<br>2   | 12<br>2   | 89<br>2     | 17<br>2     | 20<br>1   | 30<br>2   | 40<br>2   | 58<br>2     | 75<br>2     | 69<br>2     | 30          |
| Number Percent Diseases of the nervous system and sense organs:                                  | 37<br>6     | 66<br>6   | 55<br>6 | 90<br>5   | 107<br>4 | 107<br>3 | 87<br>3     | 549<br>4    | 38<br>11    | 64<br>11 | 59<br>10 | 63<br>8   | 70<br>7   | 33<br>3   | 26<br>3   | 353<br>7    | 75<br>8     | 130<br>8  | 114<br>7  | 153<br>6  | 177<br>5    | 140<br>3    | 113<br>3    | 90          |
| Number Percent Diseases of the circulatory system:   | 44<br>8     | 96<br>9   |         | 124<br>7  | 184<br>7 | 243<br>7 | 210<br>6    | 978<br>7    | 34<br>9     | 44<br>8  | 48<br>8  | 64<br>8   | 73<br>8   | 80<br>8   | 49<br>7   | 392<br>8    | 78<br>8     | 140<br>9  | 125<br>8  | 188<br>7  | 257<br>7    | 323<br>7    | 259<br>6    | 1,37        |
| Number   | 19<br>3     | 145<br>15 |         | 547<br>33 |          |          | 1,429<br>44 | 4,801<br>35 | 16<br>4     | 55<br>9  | 73<br>13 | 141<br>18 | 217<br>22 | 297<br>28 | 245<br>32 | 1,044<br>21 | 35<br>4     | 200<br>12 | 340<br>22 | 688<br>27 | 1,142<br>32 | 1,766<br>37 | 1,674<br>42 | 5,84<br>3   |

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TABLE 1D-Continued

|   |             |                 |           | MA       | LE           |              |          |             |             |            |            | Fем        | ALE             |         | _          |             |             | MA        | LE AN     | D FEMA   | LE Co        | MBINE    | D        |            |
|---|-------------|-----------------|-----------|----------|--------------|--------------|----------|-------------|-------------|------------|------------|------------|-----------------|---------|------------|-------------|-------------|-----------|-----------|----------|--------------|----------|----------|------------|
| Diagnosis   | Under<br>30 | 30-39           | 40-44     | 45-49    | 50-54        | 55-59        | 60-64    | All<br>Ages | Under<br>30 | 30–39      | 40-44      | 45-49      | 50-54           | 55-59   | 60–64      | All<br>Ages | Under<br>30 | 30-39     | 40-44     | 45-49    | 50-54        | 55-59    | 60-64    | All<br>Age |
| Diseases of the respiratory sys-<br>tem:  |             |                 |           |          |              |              |          |             |             |            |            |            |                 |         |            |             |             |           |           |          |              |          |          |            |
| Number  | 12<br>2     | 35<br>3         |           |          | 176<br>7     | 346<br>10    |          | 1,004<br>7  | 12<br>3     | 29<br>5    | 28<br>5    | 31<br>4    | 35<br>4         | 39<br>4 | 49<br>7    | 223<br>4    | 24<br>3     | 64<br>4   | 60<br>4   | 129<br>5 |              | 385<br>8 | 354<br>9 | 1,2        |
| Diseases of the digestive system: Number Percent Diseases of the genitourinary sys- | 5<br>1      | 43<br>4         | 31<br>3   | 56<br>3  | 62<br>2      | 92<br>3      | 95<br>3  | 384<br>2    | 16<br>4     | 33<br>6    | 27<br>5    | 31         | 32<br>3         | 34<br>3 | 21<br>3    | 194<br>4    | 21<br>2     | 76<br>5   | 58<br>4   | 87       | 94<br>3      | 126<br>3 | 116<br>3 | 5          |
| tem:<br>Number<br>Percent   | 19<br>3     | 1 <u>4</u><br>1 | 19<br>2   | 23<br>1  | 32<br>1      | 43<br>1      | 34<br>1  | 184<br>1    | 8 2         | 22         | 21<br>4    | 17         | 13              | 16      | 13<br>2    | 110<br>2    | 27<br>3     | 36<br>2   |           |          |              | 59<br>1  | 47<br>1  | 1          |
| Diseases of the skin and cellular<br>tissue:<br>Number<br>Percent                   | 10          | 10              | 11        | 17       | 15           | 21           | 17       | 101         | 8           | 15         | 4          | 10         | 9               | 12      | 7          | 65<br>1     | 18          | 25        | 15        | 27       | 24           | 33       | 24       | <u> </u>   |
| Diseases of the bones and organs of movement: Number                                |             | 189             | 148       | 223      | 321          | 376          | 369      | 1,715       | 55          | 102        | 99         | 141        | 147             | 103     | 124        | 834         | 144         | 291       | 247       | 367      | 468          | 539      | 493      | 2.         |
| Percent   | 15          | 20              | 15        | 13       | 13           |              |          | 13          | 16          | 17         | 17         | 18         | 1.5             | 16      | 16         | 16          | 15          | 18        |           | 15       | 13           |          |          |            |
| Number Percent enility and ill-defined conditions:                                  | 0           | 3<br>0          | 0         | 2<br>0   | 8<br>0       | 0            | 0        | 21<br>0     | 0           | 0          | 0          | 0          | 3<br>0          | 0       | 1<br>0     | 0           | 2<br>0      | 0         | 0         | 0        |              | 0        | 0        |            |
| Number Percent ccidents, poisoning, and vio-  | 18<br>3     | 24<br>2         | 15<br>2   | 37<br>2  | 51<br>2      | 65<br>2      | 57<br>2  | 267<br>2    | 26<br>7     | 30<br>5    | 25<br>4    | .3.2<br>-4 | <b>4</b> 6<br>5 | 28<br>3 | 18<br>2    | 205<br>4    | 44<br>5     | 54<br>3   | 40<br>3   | 69       | 97<br>3      | 93<br>2  | 75<br>2  |            |
| lence:<br>Number<br>Percent<br>Un letermined:                                       | 236<br>41   | 215<br>21       | 109<br>11 | 154<br>9 | 142<br>6     | 147<br>4     | 93<br>3  | 1,096       | 91<br>26    | 78<br>13   | 58<br>11   | 64<br>8    | <b>86</b><br>9  | 58<br>6 | 41<br>5    | 476<br>9    | 327<br>34   | 293<br>19 | 167<br>11 | 218      |              | 205<br>4 | 134<br>3 | 1,         |
| Number Percent  | 45<br>8     | 82<br>8         | 91<br>10  | 144<br>8 | 211<br>8     | 302<br>8     | 211<br>6 | 1,086<br>8  | 21<br>6     | 55<br>9    | 56<br>10   | 74<br>9    | 80<br>8         | 96<br>9 | 49<br>7    | 431<br>9    | 66<br>7     | 137<br>9  | 147<br>10 |          |              | 398<br>9 | 260<br>6 | 1,         |
| Total<br>Number<br>Percent  | 579<br>100  | 1,016<br>100    |           | 1,712    | 2,527<br>100 | 3,636<br>100 | 3,279    | 13,704      | 363<br>100  | 586<br>100 | 567<br>100 | 795<br>100 | 968<br>100      | 1,038   | 753<br>100 | 5,070       |             |           | 1,522     | 2,507    | 3,495<br>100 | 4,674    |          |            |

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#### TABLE 2

#### GROUP LONG-TERM DISABILITY INSURANCE CRUDE RATES OF DISABLEMENT PER 1,000 LIVES EXPOSED

(Three-Month Elimination Period; Calendar Year of Issue Excluded)

Calendar Years of Experience 1971-75

ALL EXPERIENCE UNITS COMBINED

| Attained Age               | Life Years<br>Exposed                                     | Number of<br>Claims                    | Rate of<br>Disablement<br>per 1,000<br>Lives   |
|----------------------------|---|--|--|
|                            |   | ience: Males, F<br>Sex Unknown         | emales,  |
| Under 40<br>40–44<br>45–49 | 473,830<br>101,221<br>96,167                              | 909<br>415<br>603                      | 1.92<br>4.10<br>6.27                           |
| 50–54                      | 80,529<br>60,820<br>38,407                                | 762<br>883<br>787                      | 9.46<br>14.52<br>20.49                         |
| All ages                   | 850,974   | 4,359                                  | 5.12   |
|                            | Male  | Experience Or                          | nly  |
| Under 40                   | 223,423<br>52,166<br>47,761<br>40,368<br>31,184<br>20,446 | 417<br>197<br>268<br>382<br>502<br>469 | 1.87<br>3.78<br>5.61<br>9.46<br>16.10<br>22.94 |
| All ages                   | 415,348   | 2,235                                  | 5.38   |
|                            | Fema  | le Experience C                        | only   |
| Under 40                   | 98,053<br>16,843<br>17,369<br>15,994<br>11,442<br>7,222   | 213<br>113<br>136<br>148<br>153<br>112 | 2.17<br>6.71<br>7.83<br>9.25<br>13.37<br>15.51 |
| All ages                   | 166,923   | 875                                    | 5.24   |

#### TABLE 3

#### GROUP LONG-TERM DISABILITY INSURANCE CRUDE RATES OF DISABLEMENT PER 1,000 LIVES EXPOSED

#### (Twelve-Month Elimination Period; Calendar Year of Issue Excluded)

Calendar Years of Experience 1971-75

ALL EXPERIENCE UNITS COMBINED

| Attained Age   | Life Years<br>Exposed   | Number of<br>Claims                 | Rate of<br>Disablement<br>per 1,000<br>Lives  |
|--|---|-------------------------------------|---|
|  |   | ience: Males, F<br>d Sex Unknown    |   |
| Under 40<br>40-44<br>45-49<br>50-54<br>55-59<br>60-64<br>All ages        | 143,954<br>30,192<br>32,638<br>29,563<br>23,366<br>12,449     | 72<br>40<br>89<br>150<br>208<br>119 | 0.50<br>1 32<br>2.73<br>5.07<br>8.90<br>9.56  |
|  | Male  | Experience Or                       | aly   |
| Under 40   | 87,475<br>19,008<br>20,583<br>18,375<br>14,898<br>8,555       | 45<br>23<br>58<br>91<br>139<br>94   | 0.51<br>1.21<br>2.82<br>4.95<br>9.33<br>10.99 |
| All ages   | 168,894   | 450                                 | 2.66  |
|  | Fema  | le Experience (                     | Only  |
| Under 40.<br>40-44.<br>45-49.<br>50-54.<br>55-59.<br>60-64.<br>All ages. | 22,281<br>4,987<br>6,132<br>6,375<br>5,444<br>2,152<br>47,371 | 19<br>6<br>14<br>35<br>37<br>9      | 0.85<br>1.20<br>2.28<br>5.49<br>6.80<br>4.18  |
| 1111 tag 03  | 1,,,,,  | 120                                 |   |

ablement of nonjumbo size groups from Table 1A by sex category to the actual exposures for each age-sex group. The tabulars, therefore, only adjust for age and sex. No adjustments are made for any other factors that might influence disablement rates.

The reader is reminded that the basis (described previously) under which the ratios of actual claims to tabular claims were determined has been changed from previous years. Table 1B-1, with the tabular claims determined as in previous years (i.e., age-disablement rates based on the experience of all sex categories combined), has been included in this report for the reader's convenience in analyzing the impact of this change.

Table 1B also gives some indication of the adverse impact of the 1970–71 recession on disablement rates. Both the rate of disablement and the ratios of actual to tabular for the year 1971 are significantly higher than the levels for prior years. Table 1B also indicates that the effect of the 1970–71 recession was limited and that disablement rates in 1972–75 appear to have retreated to prerecession levels.

Table 1C subdivides the Table 1 experience for all ages and for males, females, and sex-unknown exposures combined, by size of experience unit. Note that experience units of less than 100 lives accounted for over 58 percent of the total number of units. This explains the large number of units (over 71 percent of the total) that experienced no claims. This table shows that the rate of disablement and the actual-to-tabular ratios tend to increase with the size of the group—a phenomenon that is consistent with the results of prior years.

Table 1C also includes a dispersion-type analysis of ratios of actual claims to tabular claims. As in Table 1B, the tabulars adjust only for age and sex. However, because the experience is not adjusted for other characteristics that might have a measurable impact on the rate of disablement, such as differences among contributing companies in underwriting and claims administration practices, the extent to which employers use the long-term disability plan as an early retirement vehicle, the proportions of salaried and hourly employees, the extent of employer financial participation, the type of industry, the relationship of the amount of benefit payable under the plan to take-home pay, and so on, the reader should use caution in interpreting the results.

To allow analysis of the relative disablement rates by cause of disability, the contributing companies were asked to code the cause of disability, where available, on the individual claim cards submitted for the study. These data have been analyzed and the results are summarized in Table 1D for those claims included in the active lives study for plans with a six-month elimination period. The results shown are for each sex

and both sexes combined. The number and percentage distribution by cause of disability of the coded claims is shown for the various age groups. The number of claims in each cell is shown to indicate the relative weights of the results.

Table 4 shows exposures, claims, and rates of disablement by size of group for plans with either a three- or a twelve-month elimination period. Tabulars used for each elimination period in this table are based on the experience of all size groups displayed in Tables 2 and 3.

The respective experiences underlying Tables 1 and 1A have been analyzed by employee class, industry, contributory status, and plan provisions with respect to preexisting conditions, indirect integration (whereby the long-term disability benefit may be reduced when the total income from all specified sources, including the long-term disability benefit, exceeds a specified percentage of salary), and rehabilitation. The respective results are displayed in Tables 5–10.

In examining Tables 5-10, it should be noted that many of the variables analyzed may be interrelated. This is especially true in Table 6, where the results shown in the various cells may be influenced heavily by the level of hourly versus salaried employees.

The portion of the Table 5 experience under units with at least a 75 percent salaried employees composition, the majority of whom were not executives (i.e., Code 2), was analyzed further to investigate the effect that appears to be exerted on disablement rates by such variables as (a) the relationship between the long-term disability benefit (before integration with other income sources) and salary at time of disablement, (b) the plan's integration provision, and (c) the extent to which a disability income is provided under employer-sponsored plans prior to qualification for long-term disability benefits. The several classifications are somewhat broad. The various parameters may not be mutually exclusive. The respective subanalyses are shown in Table 5A, separately for nonjumbo and for all experience units. It should be noted that the tabulars and the actual-to-tabular ratios are consistent with those in Table 5 for Employee Code 2.

The portions of the Table 6 experience under units with "the majority salaried" and "the majority hourly" as defined in Table 5 were analyzed to investigate the effect that employee class has on the disablement rates by industry classification. The respective subanalyses are shown in Table 6A, separately for nonjumbo and for all experience units combined. It should be noted that the tabulars and the actual-to-tabular ratios are consistent with those shown in Tables 5 and 6.

The actual-to-tabular ratios shown by industry in Tables 6 and 6A have

#### ANALYSIS OF RATES OF DISABLEMENT BY SIZE OF EXPERIENCE UNIT EXPOSED

(Calendar Year of Issue Excluded; All Ages; Males, Females, and Sex Unknown Combined)

Calendar Years of Experience 1971-75

ALL EXPERIENCE UNITS COMBINED

|                |                                  | THREE-MONTH              | ELIMINATION            | PERIOD PLANS                                      | <b>.</b>  | 1                                | TWELVE-MONTE             | ELIMINATIO             | n Period Plan                                     | s   |
|----------------|----------------------------------|--------------------------|------------------------|---|---|----------------------------------|--------------------------|------------------------|---|---|
| Size of Unit   | Number of<br>Experience<br>Units | Life<br>Years<br>Exposed | Number<br>of<br>Claims | Rate of<br>Disable-<br>ment<br>per 1,000<br>Lives | Ratio of<br>Actual<br>Claims to<br>Tabular<br>Claims* | Number of<br>Experience<br>Units | Life<br>Years<br>Exposed | Number<br>of<br>Claims | Rate of<br>Disable-<br>ment<br>per 1,000<br>Lives | Ratio of<br>Actual<br>Claims to<br>Tabular<br>Claims† |
| Under 25 lives | 2,034                            | 25,340                   | 140                    | 5.52  | 106%  | 16                               | 177                      | 1                      | 5.65  | 193%  |
| 25-49          | 2,013                            | 73,053                   | 366                    | 5.01  | 92  | 83                               | 3,123<br>7,407           | 6                      | 1.92  | 69  |
| 50–99          | 1,750                            | 120,503                  | 628                    | 5.21  | 97  | 104                              |                          | 13                     | 1.76  | 64  |
| 100-249        | 1,010                            | 150,182                  | 753                    | 5.01  | 99  | 113                              | 18,620                   | 57                     | 3.06  | 108   |
| 250-499        |                                  | 116,926                  | 586                    | 5.01  | 97  | 59                               | 21,537                   | 57                     | 2.65  | 96  |
| 500-999        | 230                              | 159,473                  | 846                    | 5.30  | 105   | 65                               | 46,092                   | 132                    | 2.86  | 92  |
| 1,000-2,499    | 83                               | 122,146                  | 651                    | 5.33  | 112   | 29                               | 42,952                   | 148                    | 3.45  | 110   |
| 2,500-4,999    | 15                               | 56,683                   | 222                    | 3.92  | 79  | 21                               | 73,558                   | 183                    | 2.49  | 115   |
| Under 5,000    | 7,469                            | 824,306                  | 4,192                  | 5.09  | 100%  | 490                              | 213,466                  | 597                    | 2.80  | 103%  |
| 5,000 or more  | 5                                | 26,668                   | 167                    | 6.26  | 109%  | 8                                | 58,696                   | 81                     | 1.38  | 83%   |
| Total          | 7,474                            | 850,974                  | 4,359                  | 5.12  | 100%  | 498                              | 272,162                  | 678                    | 2.49  | 100%  |

<sup>\*</sup> Tabular claims were calculated by applying to the actual age-sex-group exposures the crude rates of disablement shown in Table 2.

<sup>†</sup> Tabular claims were calculated by applying to the actual age-sex-group exposures the crude rates of disablement shown in Table 3.

TABLE 5

GROUP LONG-TERM DISABILITY INSURANCE
ANALYSIS OF TABLES 1 AND 1A EXPERIENCE BY EMPLOYEE CLASS

|   |   |  | Table 1                          | A Experience-            | Nonjumbo Us            | HITS ONLY   | т                                | ABLE 1 EXPERIE           | NCE-ALL UNI            | тs  |
|---|---|--|----------------------------------|--------------------------|------------------------|---|----------------------------------|--------------------------|------------------------|---|
|   | Employee<br>Code                        | Employee Class                                   | Number of<br>Experience<br>Units | Life<br>Years<br>Exposed | Number<br>of<br>Claims | Ratio of<br>Actual<br>Claims to<br>Tabular<br>Claims* | Number of<br>Experience<br>Units | Life<br>Years<br>Exposed | Number<br>of<br>Claims | Ratio of Actual Claims to Tabular Claims* |
|   | • | At least 75% salaried, majority executive        | 534                              | 140,104                  | 550                    | 12%   | 541                              | 193,370                  | 648                    | 99%                                       |
| 2 | ł                                       | At least 75% salaried, majority nonexecutive     | 4,963                            | 1,277,380                | 3,830                  | 90  | 5,029                            | 1,907,531                | 5,894                  | 95  |
| 3 |   | 50-75% salaried                                  | 195                              | 40,490                   | 203                    | 146   | 202                              | 136,770                  | 504                    | 109                                       |
| 7 |   | At least 50% salaried (exact percentage unknown) | 76                               | 12,484                   | 27                     | 53  | 76                               | 12,484                   | 27                     | 53  |
|   |   | Subtotal (majority salaried)                     | 5,768                            | 1,470,458                | 4,610                  | 93%   | 5,848                            | 2,250,155                | 7,073                  | 96%                                       |
| 6 |   | At least 50% hourly (exact percentage unknown)   | 1,299                            | 286,050                  | 1,008                  | 105   | 1,305                            | 371,554                  | 1,224                  | 100%                                      |
| 4 |   | 50-75% hourly                                    | 389                              | 127,585                  | 568                    | 122   | 389                              | 127,585                  | 568                    | 122                                       |
| 5 |   | At least 75% hourly                              | 304                              | 102,027                  | 604                    | 162   | 312                              | 156,075                  | 1,155                  | 165                                       |
|   |   | Subtotal (majority hourly)                       | 1,992                            | 515,662                  | 2,180                  | 122%  | 2,006                            | 655,214                  | 2,947                  | 123%                                      |
| 9 |   | Indeterminate                                    | 2,537                            | 470,685                  | 1,519                  | 97%   | 2,540                            | 504,209                  | 1,722                  | 104%                                      |
|   |   | Total  | 10,297                           | 2,456,805                | 8,309                  | 100%  | 10,394                           | 3,409,578                | 11,742                 | 103%                                      |

<sup>\*</sup> Tabular claims were calculated by applying to the actual age-sex-group exposures the crude rates of disablement shown in Table 1A.

TABLE 5-1

GROUP LONG-TERM DISABILITY INSURANCE
ANALYSIS OF TABLES 1 AND 1A EXPERIENCE BY EMPLOYEE CLASS

|                  |  | TABLE 1                          | A Experience             | -Nonjumbo Un           | ITS ONLY  | Т                                | ABLE 1 EXPERIE           | NCE—ALL UNI            | TS  |
|------------------|--|----------------------------------|--------------------------|------------------------|---|----------------------------------|--------------------------|------------------------|---|
| Employee<br>Code | Employee Class                                   | Number of<br>Experience<br>Units | Life<br>Years<br>Exposed | Number<br>of<br>Claims | Ratio of<br>Actual<br>Claims to<br>Tabular<br>Claims* | Number of<br>Experience<br>Units | Life<br>Years<br>Exposed | Number<br>of<br>Claims | Ratio of<br>Actual<br>Claims to<br>Tabular<br>Claims* |
| 1                | At least 75% salaried, majority executive        | 534                              | 140,104                  | 550                    | 113%  | 541                              | 193,370                  | 648                    | 100%  |
| 2                | At least 75% salaried, majority nonexecutive     | 4,963                            | 1,277,380                | 3,830                  | 89  | 5,029                            | 1,907,531                | 5,894                  | 94  |
| 3                | . 50-75% salaried                                | 195                              | 40,490                   | 203                    | 146   | 202                              | 136,770                  | 504                    | 108   |
| 7                | At least 50% salaried (exact percentage unknown) | 76                               | 12,484                   | 27                     | 53  | 76                               | 12,484                   | 27                     | 53  |
|                  | Subtotal   | 5,768                            | 1,470,458                | 4,610                  | 93%   | 5,848                            | 2,250,155                | 7,073                  | 95%   |
| 6                | At least 50% hourly (exact percentage unknown)   | 1,299                            | 286,050                  | 1,008                  | 104   | 1,305                            | 371,554                  | 1,224                  | 100%  |
| 4                |  | 389                              | 127,585                  | 568                    | 121   | 389                              | 127,585                  | 568                    | 121   |
| 5                | At least 75% hourly                              | 304                              | 102,027                  | 604                    | 164   | 312                              | 156,075                  | 1,155                  | 163   |
|                  | Subtotal   | 1,992                            | 515,662                  | 2,180                  | 121%  | 2,006                            | 655,214                  | 2,947                  | 123%  |
| 9                | Indeterminate                                    | 2,537                            | 470,685                  | 1,519                  | 99%   | 2,540                            | 504,209                  | 1,722                  | 106%  |
|                  | Total  | 10,297                           | 2,456,805                | 8,309                  | 100%  | 10,394                           | 3,409,578                | 11,742                 | 102%  |

<sup>\*</sup> Tabular claims were calculated by applying to the actual age-group exposures the crude rates of disablement shown in Table 1A for males, females, and sex unknown combined.

#### SUPPLEMENTAL ANALYSIS OF TABLE 5 EXPERIENCE FOR EMPLOYEE CLASS CODE 2

(Six-Month Elimination Period; Calendar Year of Issue Excluded; All Ages; Males, Females, and Sex Unknown Combined)

Calendar Years of Experience 1971-75

ALL EXPERIENCE UNITS

|   |                                  | ONJUMBO EXPERI                                 | ENCE UNITS OF                   | LLY                            | ALL  | ALL EXPERIENCE UNITS             |                                 |  |
|---|----------------------------------|--|---------------------------------|--------------------------------|--|----------------------------------|---------------------------------|--|
|   | Number of<br>Experience<br>Units | Life<br>Years<br>Exposed                       | Number<br>of<br>Claims          | Ratio of<br>A/T<br>Claims*     | Life<br>Years<br>Exposed                         | Number<br>of<br>Claims           | Ratio of<br>A/T<br>Claims*      |  |
| I. Relation   | ship between I                   | .ong-Term Disal                                | bility Fenefit                  | and Salary                     |  |                                  |                                 |  |
| Ratio of gross benefit (before reduction for integration) to salary: Always less than 50%. Generally less than 50%. | 107<br>82                        | 18,415<br>4,188                                | 29<br>11                        | 42%<br>81                      | 18,415<br>4,188                                  | 29<br>11                         | 42%<br>81                       |  |
| Subtotal (less than 50%)  | 189                              | 22,603   | 40                              | 48%                            | 22,603   | 40                               | 48%                             |  |
| 50% (exactly or approximately)  | 1,326                            | 493,254  | 1,312                           | 77%                            | 719,057  | 2,145                            | 87%                             |  |
| Always more than 50%, exact % unknown   | 101<br>310<br>2,312<br>361<br>11 | 63,060<br>25,729<br>538,258<br>95,331<br>5,183 | 294<br>51<br>1,774<br>267<br>18 | 122%<br>65<br>99<br>106<br>113 | 101,226<br>65,108<br>791,028<br>158,934<br>5,183 | 512<br>274<br>2,370<br>397<br>18 | 131%<br>120<br>95<br>101<br>113 |  |
| Subtotal (greater than 50%)   | 3,095                            | 727,561  | 2,404                           | 101%                           | 1,121,479  | 3,571                            | 101%                            |  |
| Other, including not determinable   | 353                              | 33,962   | 74                              | 62%                            | 44,392   | 138                              | 89%                             |  |
| Total salaried, nonexecutive  | 4,963                            | 1,277,380                                      | 3,830                           | 90%                            | 1,907,531  | 5,894                            | 95%                             |  |

<sup>\*</sup> Tabular claims were calculated by applying to the actual age-sex-group exposures the crude rates of disablement shown in Table 1A.

TABLE 5A-Continued

|  | N.                               | опјимво Ехрекі           | ENCE UNITS ON          | LY                         | ALL                      | Experience U           | NITS                       |
|--|----------------------------------|--------------------------|------------------------|----------------------------|--------------------------|------------------------|----------------------------|
|  | Number of<br>Experience<br>Units | Life<br>Years<br>Exposed | Number<br>of<br>Claims | Ratio of<br>A/T<br>Claims* | Life<br>Years<br>Exposed | Number<br>of<br>Claims | Ratio of<br>A/T<br>Claims* |
|  | II. Analysis                     | by Plan Integra          | tion Provision         | <u> </u>                   | 1                        |                        | 1                          |
| Other income sources included in plan integration pro-                               |                                  |                          |                        |                            |                          |                        |                            |
| vision: Nonintegrated Social security primary benefit only or in combi-              | 1,328                            | 267,970                  | 827                    | 99%                        | 675,790                  | 2,214                  | 106%                       |
| nation with income from other sources  | 553                              | 245,032                  | 791                    | 88                         | 291,059                  | 1,014                  | 96                         |
| in combination with income from other sources<br>Other integration bases             | 2,929<br>153                     | 734,418<br>29,960        | 2,107<br>105           | 87<br>96                   | 910,722<br>29,960        | 2,561<br>105           | 86<br>96                   |
| Total salaried, nonexecutive   | 4,963                            | 1,277,380                | 3,830                  | 90%                        | 1,907,531                | 5,894                  | 95%                        |
| III. Extent to Whi   | ch a Disabilit                   | y Income Is Pro          | ovided during l        | Elimination Pe             | riod                     |                        | <u> </u>                   |
| Disability income benefit provided during the elimina-                               |                                  |                          |                        |                            |                          |                        |                            |
| tion period:<br>Full salary  | 107                              | 51,216                   | 224                    | 126%                       | 187,247                  | 630                    | 120%                       |
| Less than full salary but generally more than 50% Generally less than 50% of salary. | 952<br>217                       | 268,036<br>12,734        | 854<br>33              | 92<br>61                   | 446,112<br>12,734        | $\frac{1,481}{33}$     | 101<br>61                  |
| None   | 498                              | 97,048                   | 253                    | 86                         | 97,048                   | 253                    | 86                         |
| Noncodable or unknown  | 3,189                            | 848,346                  | 2,466                  | 87                         | 1,164,390                | 3,497                  | 90                         |
| Total salaried, nonexecutive   | 4,963                            | 1,277,380                | 3,830                  | 90%                        | 1,907,531                | 5,894                  | 95%                        |

<sup>\*</sup> Tabular claims were calculated by applying to the actual age-sex-group exposures the crude rates of disablement shown in Table 1A.

TABLE 6

## GROUP LONG-TERM DISABILITY INSURANCE ANALYSIS OF TABLES 1 AND 1A EXPERIENCE BY INDUSTRY

(Six-Month Elimination Period; Calendar Year of Issue Excluded; All Ages; Males, Females, and Sex Unknown Combined)

Calendar Years of Experience 1971-75

|                     |                                      | TABLE 1A EXPERIENCE NONJUMBO UNITS ONLY |                          |                        |   | Table 1 Experience—All Units     |                          |                           |   |  |
|---------------------|--------------------------------------|---|--------------------------|------------------------|---|----------------------------------|--------------------------|---------------------------|---|--|
| INDUSTRY<br>Code(s) | Industry                             | Number of<br>Experience<br>Units        | Life<br>Years<br>Exposed | Number<br>of<br>Claims | Ratio of<br>Actual<br>Claims to<br>Tabular<br>Claims* | Number of<br>Experience<br>Units | Life<br>Years<br>Exposed | Number of<br>of<br>Claims | Ratio of<br>Actual<br>Claims to<br>Tabular<br>Claims* |  |
| 01-09               |                                      | 47                                      | 21,667                   | 88                     | 116%  | 49                               | 36,833                   | 257                       | 193%  |  |
| 10–14               | Mining                               | 194                                     | 62,871                   | 376                    | 166   | 194                              | 62,871                   | 376                       | 166   |  |
| 15–17               |                                      | 289                                     | 78,608                   | 344                    | 119   | 289                              | 78,608                   | 344                       | 119   |  |
| 19–39               |                                      | 3,913                                   | 1,042,224                | 3,868                  | 106   | 3,965                            | 1,462,470                | 6,000                     | 116   |  |
| 40-49               | electric, gas, and sanitary services | 547                                     | 164,127                  | 589                    | 108   | 549                              | 184,572                  | 736                       | 121   |  |
| 50-59               |                                      | 1,617                                   | 218,392                  | 779                    | 104   | 1,623                            | 265,482                  | 900                       | 101   |  |
| 60-67               |                                      | 1,396                                   | 401,819                  | 1,000                  | 82  | 1,410                            | 608,791                  | 1,405                     | 82  |  |
| 70–89               |                                      | 1,982                                   | 389,543                  | 1,019                  | 80  | 2,001                            | 607,133                  | 1,469                     | 71  |  |
| 91–94               |                                      | 136                                     | 33,438                   | 138                    | 111   | 136                              | 33,438                   | 138                       | 111   |  |
| 00                  | All other classifiable               | 91                                      | 34,925                   | 82                     | 78  | 93                               | 60,189                   | 91                        | 48  |  |
| 99                  | Nonclassifiable                      | 85                                      | 9,191                    | 26                     | 92  | 85                               | 9,191                    | 26                        | 92  |  |
|                     | Total                                | 10,297                                  | 2,456,805                | 8,309                  | 100%  | 10,394                           | 3,409,578                | 11,742                    | 103%  |  |

<sup>\*</sup> Tabular claims were calculated by applying to the actual age-sex-group exposures the crude rates of disablement shown in Table 1A.

TABLE 6-1

GROUP LONG-TERM DISABILITY INSURANCE
ANALYSIS OF TABLES 1 AND 1A EXPERIENCE BY INDUSTRY

(Six-Month Elimination Period; Calendar Year of Issue Excluded; All Ages; Males, Females, and Sex Unknown Combined)
Calendar Years of Experience 1971–75

|                     |   | TABLE 1                          | A Experience—            | Nonjumbo Un            | ITS ONLY  | Table 1 Experience—All Units     |                          |                        |   |
|---------------------|---|----------------------------------|--------------------------|------------------------|---|----------------------------------|--------------------------|------------------------|---|
| INDUSTRY<br>CODE(S) | Industry  | Number of<br>Experience<br>Units | Life<br>Years<br>Exposed | Number<br>of<br>Claims | Ratio of<br>Actual<br>Claims to<br>Tabular<br>Claims* | Number of<br>Experience<br>Units | Life<br>Years<br>Exposed | Number<br>of<br>Claims | Ratio of<br>Actual<br>Claims to<br>Tabular<br>Claims* |
| 01 09               | Agriculture, forestry, and fisheries                                | 47                               | 21,667                   | 88                     | 115%  | 49                               | 36,833                   | 257                    | 191%  |
| 10-14               |   | 194                              | 62,871                   | 376                    | 167   | 194                              | 62,871                   | 376                    | 167   |
| 15-17               |   | 289                              | 78,608                   | 344                    | 120   | 289                              | 78,608                   | 344                    | 120   |
| 19-39               | Manufacturing   | 3,913                            | 1,042,224                | 3,868                  | 105   | 3,965                            | 1,462,470                | 6,000                  | 116   |
| 40-49               | Transportation, communication, electric, gas, and sanitary services | 547                              | 164,127                  | 589                    | 108   | 549                              | 184,572                  | 736                    | 121   |
| 50~59               |   | 1,617                            | 218,392                  | 779                    | 104   | 1,623                            | 265,482                  | 900                    | 101   |
| 60-67               | Finance, insurance, and real estate                                 | 1,396                            | 401,819                  | 1,000                  | 82  | 1,410                            | 608,791                  | 1,405                  | 82<br>70  |
| 70-89               | Services  | 1,982                            | 389,543                  | 1,019                  | 79  | 2,001                            | 607,133                  | 1,469                  |   |
| 91-94               |   | 136                              | 33,438                   | 138                    | 110   | 136                              | 33,438                   | 138                    | 110   |
|                     | All other classifiable  | 91                               | 34,925                   | 82                     | 82  | 93                               | 60,189                   | 91                     | 51  |
| 99                  | Nonclassifiable   | 85                               | 9,191                    | 26                     | 97  | 85                               | 9,191                    | 26                     | 97  |
|                     | Total   | 10,297                           | 2,456,805                | 8,309                  | 100%  | 10,394                           | 3,409,578                | 11,742                 | 102%  |

<sup>\*</sup> Tabular claims were calculated by applying to the actual age-group exposures the crude rates of disablement shown in Table 1A for males, females, and sex unknown combined.

TABLE 6A

#### GROUP LONG-TERM DISABILITY INSURANCE SUPPLEMENTAL ANALYSIS OF EXPERIENCE BY INDUSTRY

(Six-Month Elimination Period; Calendar Year of Issue Excluded; All Ages; Males, Females, and Sex Unknown Combined)

Calendar Years of Experience 1971-75

#### I. GROUPS CONTAINING A MAJORITY OF HOURLY EMPLOYEES

|    |                     |   | Nonjumbo Units Only              |                          |                        |   | ALL Units                        |                          |                        |   |  |
|----|---------------------|---|----------------------------------|--------------------------|------------------------|---|----------------------------------|--------------------------|------------------------|---|--|
| ·  | INDUSTRY<br>CODE(S) | Industry  | Number of<br>Experience<br>Units | Life<br>Years<br>Exposed | Number<br>of<br>Claims | Ratio of<br>Actual<br>Claims to<br>Tabular<br>Claims* | Number of<br>Experience<br>Units | Life<br>Years<br>Exposed | Number<br>of<br>Claims | Ratio of<br>Actual<br>Claims to<br>Tabular<br>Claims* |  |
|    | -09                 | Agriculture, forestry, and fisheries                                | 7                                | 10,480                   | .55                    | 160%  | 7                                | 10,480                   | 55                     | 160%  |  |
| 10 | -14                 | Mining  | 81                               | 30,750                   | 232                    | 195   | 81                               | 30,750                   | 232                    | 195   |  |
| 15 | -17                 | Contract construction   | 61                               | 19,421                   | 92                     | 149   | 61                               | 19,421                   | 92                     | 149   |  |
| 19 | -39                 | Manufacturing   | 838                              | 231,719                  | 1,102                  | 133   | 843                              | 269,121                  | 1,640                  | 164   |  |
| 40 | -49                 | Transportation, communication, electric, gas, and sanitary services | 150                              | 65,538                   | 214                    | 94  | 152                              | 85,983                   | 361                    | 125   |  |
| 50 | ⊢ <b>59</b> ]       | Wholesale and retail trade  | 322                              | 54,345                   | 160                    | 89  | 323                              | 61,001                   | 169                    | 85  |  |
|    | -67                 | Finance, insurance, and real estate                                 | 200                              | 40,755                   | 91                     | 7.5   | 200                              | 40,755                   | 91                     | 75  |  |
| 70 | -89                 | Services  | 277                              | 50,726                   | 163                    | 91  | 283                              | 125,775                  | 236                    | 45  |  |
| 91 | -94                 | Government  | 44                               | 10,445                   | 64                     | 162   | 44                               | 10,445                   | 64                     | 162   |  |
|    |                     | All other classifiable  | 8                                | 956                      | 5                      | 135   | 8                                | 956                      | 5                      | 135   |  |
| 99 |                     | Nonclassifiable   | 4                                | 527                      | 2                      | 138   | 4                                | 527                      | 2                      | 138   |  |
|    |                     | Total   | 1,992                            | 515,662                  | 2,180                  | 122%  | 2,006                            | 655,214                  | 2,947                  | 123%  |  |

<sup>\*</sup> Tabular claims were calculated by applying to the actual age-sex-group exposures the crude rates of disablement shown in Table IA.

TABLE 6A—Continued

11. GROUPS CONTAINING A MAJORITY OF SALARIED EMPLOYEES

|                     |   | Nonjumbo Units Only              |                          |                        |   | ALL UNITS                        |                          |                        |  |  |
|---------------------|---|----------------------------------|--------------------------|------------------------|---|----------------------------------|--------------------------|------------------------|--|--|
| INDUSTRY<br>CODE(S) | Industry  | Number of<br>Experience<br>Units | Life<br>Years<br>Exposed | Number<br>of<br>Claims | Ratio of<br>Actual<br>Claims to<br>Tabular<br>Claims* | Number of<br>Experience<br>Units | Life<br>Years<br>Exposed | Number<br>of<br>Claims | Ratio of<br>Actal<br>Claims to<br>Tabular<br>Claims* |  |
| 01-09               | Agriculture, forestry, and fisheries                                | 22                               | 9,682                    | 30                     | 87%   | 22                               | 9,682                    | 30                     | 87%  |  |
| 10-14               | Mining<br>Contract construction                                     | 107<br>172                       | 30,289                   | 139                    | 134   | 107                              | 30,289                   | 139                    | 134  |  |
| 19–39               | Manufacturing   |                                  | 22,571                   | 94                     | 107   | 172                              | 22,571                   | 94                     | 107  |  |
| 40-49               |   | 2,368<br>301                     | 665,205                  | 2,291                  | 98  | 2,415                            | 1,048,049                | 3,885                  | 106  |  |
| 40-49               | Transportation, communication, electric, gas, and sanitary services | 301                              | 76,162                   | 327                    | 134   | 301                              | 76,162                   | 327                    | 134  |  |
| 50-59,              | Wholesale and retail trade  | 948                              | 111,642                  | 398                    | 99  | 953                              | 152,076                  | 510                    | 97   |  |
| 60-67               | Finance, insurance, and real estate<br>Services                     | 691                              | 242,037                  | 571                    | 77  | 704                              | 430,651                  | 942                    | 79   |  |
| 70-89               | Services  | 1,024                            | 264,744                  | 625                    | 73  | 1,037                            | 407,285                  | 1,002                  | 76   |  |
| 91-94               | Government  | 77                               | 21,506                   | 69                     | 86  | 77                               | 21,506                   | 69                     | 86   |  |
|                     | All other classifiable  | 58                               | 26,620                   | 66                     | 85  | 60                               | 51,884                   | 75                     | 47   |  |
| 99                  | Nonclassifiable   | 0                                | 0                        | 0                      | 0   | 0                                | 0                        | ő                      | Ö  |  |
|                     | Total   | 5,768                            | 1,470,458                | 4,610                  | 93%   | 5,848                            | 2,250,155                | 7,073                  | 96%  |  |

<sup>\*</sup> Tabular claims were calculated by applying to the actual age-sex-group exposures the crude rates of disablement shown in Table 1A.

TABLE 6B

## GROUP LONG-TERM DISABILITY INSURANCE COMPARISON OF TABLES 6 AND 6A EXPERIENCE BY EMPLOYEE CLASS RATIO OF ACTUAL CLAIMS TO TABULAR CLAIMS\*

|      |                     |   | Table 1 | A Experience-        | -Nonjumbo Un       | ITS ONLY          | TABLE 1 EXPERIENCE—ALL UNITS |                      |                    |                    |
|------|---------------------|---|---------|----------------------|--------------------|-------------------|------------------------------|----------------------|--------------------|--------------------|
|      | INDUSTRY<br>CODE(S) | Industry  | All     | Majority<br>Salaried | Majority<br>Hourly | Indetermi<br>nate | All                          | Majority<br>Salaried | Majority<br>Hourly | Indetermi-<br>nate |
|      | 1-09                | Agriculture, forestry, and fisheries                                | 116%    | 87%                  | 160%               | 44%               | 193%                         | 87%                  | 160%               | 267%               |
| - 10 | 0–14                | Mining  | 166     | 134                  | 195                | 123               | 166                          | 134                  | 195                | 123                |
|      | 5-17                | Contract construction   | 119     | 107                  | 149                | 113               | 119                          | 107                  | 149                | 113                |
| 19   | 9–39                | Manufacturing   | 106     | 98                   | 133                | 94                | 116                          | 106                  | 164                | 94                 |
| 40   | 0–49                | Transportation, communication, electric, gas, and sanitary services | 108     | 134                  | 94                 | 64                | 121                          | 134                  | 125                | 64                 |
| 50   | 0-59                | Wholesale and retail trade  | 104     | 99                   | 89                 | 132               | 101                          | 97                   | 85                 | 132                |
| 60   | 0–67                | Finance, insurance, and real estate                                 | 82      | 77                   | 75                 | 93                | 82                           | 79                   | 75                 | 92                 |
|      | 0-89                | Services  | 80      | 73                   | 91                 | 95                | 71                           | 76                   | 45                 | 95                 |
| 91   | 1-94                | Government  | 111     | 86                   | 162                | 99                | 111                          | 86                   | 162                | 92<br>95<br>99     |
|      |                     | All other classifiable  | 78      | 85                   | 135                | 46                | 48                           | 47                   | 135                | 46                 |
| 99   | 9                   | Nonclassifiable   | 92      | 0                    | 138                | 89                | 92                           | 0                    | 138                | 46<br>89           |
|      |                     | Total   | 100%    | 93%                  | 122%               | 97%               | 103%                         | 96%                  | 123%               | 104%               |

<sup>\*</sup> Tabular claims were calculated by applying to the actual age-sex-group exposures the crude rates of disablement shown in Table 1A.

TABLE 7

### GROUP LONG-TERM DISABILITY INSURANCE ANALYSIS OF TABLES 1 AND 1A EXPERIENCE BY CONTRIBUTORY STATUS

|  | TABLE 1A EXPERIENCE—NONJUMBO UNITS ONLY |                          |                        |   | Table 1 Experience—All Units     |                          |                        |   |  |
|--|---|--------------------------|------------------------|---|----------------------------------|--------------------------|------------------------|---|--|
| Contributory Status  | Number of<br>Experience<br>Units        | Life<br>Years<br>Exposed | Number<br>of<br>Claims | Ratio of<br>Actual<br>Claims to<br>Tabular<br>Claims* | Number of<br>Experience<br>Units | Life<br>Years<br>Exposed | Number<br>of<br>Claims | Ratio of<br>Actual<br>Claims to<br>Tabular<br>Claims* |  |
| Employee-pay-all<br>Employer-pay-all.<br>Contributory, employer and employee | 865<br>5,257                            | 301,097<br>921,831       | 1,099<br>3,123         | 105%<br>101   | 889<br>5,279                     | 534,308<br>1,184,925     | 1,820<br>3,774         | 108%<br>97  |  |
| share cost   | 2,926<br>1,249                          | 765,664<br>468,213       | 2,848<br>1,239         | 108<br>80   | 2,966<br>1,260                   | 1,119,621<br>570,724     | 4,466<br>1,682         | 115<br>84   |  |
| Total  | 10,297                                  | 2,456,805                | 8,309                  | 100%  | 10,394                           | 3,409,578                | 11,742                 | 103%  |  |

<sup>\*</sup> Tabular claims were calculated by applying to the actual age-sex-group exposures the crude rates of disablement shown in Table 1A.

TABLE 8

#### ANALYSIS OF TABLES 1 AND 1A EXPERIENCE BY PREINSTING CONDITION PROVISION

|   | TABLE 1                          | A Experience             | Nonjumbo Un            | ITS ONLY  | TABLE 1 EXPERIENCE—ALL UNITS     |                          |                        |   |  |
|---|----------------------------------|--------------------------|------------------------|---|----------------------------------|--------------------------|------------------------|---|--|
|   | Number of<br>Experience<br>Units | Life<br>Years<br>Exposed | Number<br>of<br>Claims | Ratio of<br>Actual<br>Claims to<br>Tabular<br>Claims* | Number of<br>Experience<br>Units | Life<br>Years<br>Exposed | Number<br>of<br>Claims | Ratio of Actual Claims to Tabular Claims* |  |
| Preexisting conditions are not covered Preexisting conditions are covered | 6,222<br>4,075                   | 801,667<br>1,655,138     | 2,680<br>5,629         | 98%<br>101  | 6,256<br>4,138                   | 1,171,690<br>2,237,888   | 3,948<br>7,794         | 97%<br>105                                |  |
| Total   | 10,297                           | 2,456,805                | 8,309                  | 100%  | 10,394                           | 3,409,578                | 11,742                 | 103%                                      |  |

<sup>\*</sup> Tabular claims were calculated by applying to the actual age-sex-group exposures the crude rates of disablement shown in Table 1A.

#### Analysis of Tables 1 and 1A Experience by Plan Indirect Integration Provision

(Six-Month Elimination Period; Calendar Year of Issue Excluded; All Ages; Males, Females, and Sex Unknown Combined)
Calendar Years of Experience 1971-75

|  | Table 1                          | A Experience-            | Nonjumbo Un            | ITS ONLY  | TABLE 1 EXPERIENCE—ALL UNITS     |                          |                        |   |  |
|--|----------------------------------|--------------------------|------------------------|---|----------------------------------|--------------------------|------------------------|---|--|
| No indicate income                         | Number of<br>Experience<br>Units | Life<br>Years<br>Exposed | Number<br>of<br>Claims | Ratio of<br>Actual<br>Claims to<br>Tabular<br>Claims* | Number of<br>Experience<br>Units | Life<br>Years<br>Exposed | Number<br>of<br>Claims | Ratio of<br>Actual<br>Claims to<br>Tabular<br>Claims* |  |
| No indirect integration                    | 6,505                            | 1,489,311                | 4,848                  | 96%   | 6,544                            | 1,887,846                | 5,980                  | 93%   |  |
| Indirect integration—nonduplication level: |                                  |                          |                        |   |                                  |                          |                        |   |  |
| Less than 50%                              | 24                               | 14,439                   | 33                     | 67  | 24                               | 14,439                   | 33                     | 67  |  |
| 50-59%                                     | 281                              | 124,078                  | 354                    | 81  | 291                              | 230,669                  | 654                    | 94  |  |
| 60-69°C                                    | 1,146                            | 331,860                  | 1,193                  | 106   | 1,180                            | 645,919                  | 2,300                  | 104   |  |
| 70-790                                     | 2,164<br>131                     | 429,844                  | 1,610                  | 110   | 2,178                            | 563,432                  | 2,504                  | 130   |  |
| 80-89%                                     | 12                               | 44,237<br>2,404          | 110<br>9               | 88<br>155   | 131<br>12                        | 44,237<br>2,404          | 110<br>9               | 88<br>155   |  |
| Integrated but noncodable                  | 34                               | 20,632                   | 152                    | 294   | 34                               | 20,632                   | 152                    | 294   |  |
| Total                                      | 10,297                           | 2,456,805                | 8,309                  | 100%  | 10,394                           | 3,409,578                | 11,742                 | 103%  |  |

<sup>\*</sup> Tabular claims were calculated by applying to the actual age-sex-group exposures the crude rates of disablement shown in Table 1A.

TABLE 10

#### ANALYSIS OF TABLES 1 AND 1A EXPERIENCE BY PLAN REHABILITATION PROVISION

(Six-Month Elimination Period; Calendar Year of Issue Excluded; All Ages; Males, Females, and Sex Unknown Combined)

Calendar Years of Experience 1971-75

|   | Table 1                          | A Experience             | - Nомдемво Us          | RITS ONLY   | TABLE 1 EXPERIENCE ALL UNITS     |                          |                        |   |  |
|---|----------------------------------|--------------------------|------------------------|---|----------------------------------|--------------------------|------------------------|---|--|
|   | Number of<br>Experience<br>Units | Life<br>Years<br>Exposed | Number<br>of<br>Claims | Ratio of<br>Actual<br>Claims to<br>Tabular<br>Claims* | Number of<br>Experience<br>Units | Life<br>Years<br>Exposed | Number<br>of<br>Claims | Ratio of<br>Actual<br>Claims to<br>Tabular<br>Claims* |  |
| Rehabilitation provision included<br>Rehabilitation provision not included. | 7,826<br>2,471                   | 1,673,889<br>782,916     | 5,772<br>2,537         | 101%<br>9"  | 7,882<br>2,512                   | 2,229,245<br>1,180,333   | 7,246<br>4,496         | 99%<br>109  |  |
| Total   | 10,297                           | 2,456,805                | 8,309                  | 100°,   | 10,394                           | 3,409,578                | 11,742                 | 103%  |  |

<sup>\*</sup> Tabular claims were calculated by applying to the actual age-sex-group exposures the crude rates of disablement shown in Table 1A.

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been compared separately for nonjumbo and for all experience units combined. The results are shown in Table 6B.

As mentioned previously, the basis under which the ratios of actual claims to tabular claims were determined has been changed from previous years. Tables 5-1 and 6-1, with the tabular claims determined as in previous years, have been included in this report so that the reader may analyze the impact of this change on Tables 5 and 6.

Table I examines the interrelationships among various parameters whose effect on disablement rates may not be mutually exclusive. The analysis was based on the experience of those nonjumbo units, all employee classes combined, that have plans that provide for the direct integration of the long-term disability benefit with either the total primary and family benefits payable under social security or with such social security benefits plus income from other sources. The parameters selected for study were (a) the disability income provided by employer-sponsored, short-term plans during the elimination period, (b) the proportion of salary represented by the long-term disability benefit (before integration), and (c) the point at which the long-term disability benefit is reduced, if at all, when total income from all sources exceeds a certain percentage of salary (i.e., nonduplication level), or otherwise.

The respective Table 1A, Table 2, and Table 3 experiences, each of which is a composite of all companies, were examined according to contributing company to determine the variances among companies. The findings along with the relative exposure are displayed in Exhibit I in the form of actual-to-tabular ratios. In comparing the differences between the companies, one should be reminded of the caveats noted throughout this report.

#### ANALYSIS OF RATES OF DETERMINATION

Table D-1 shows, for plans with a six-month elimination period, the crude rates of termination from death or recovery based on number of lives, by sex and age groups, for the period 1962–75. Because of the small number of terminations at the later durations, the experience has been truncated at the end of eight years of disablement. It should be noted that the termination rates for the first year of disablement relate to the six-month period following the end of the elimination period. There were 39,593 claims exposed to termination, of which 11,742 originated from the 1971–75 and 7,032 from the 1962–70 active lives experience (all experience units combined), with the balance from experience units that were not included in the study of rates of disablement. For plans with a six-month elimination period, the Committee did a sub-

#### TABLE 1

## EXPERIENCE UNDER PLANS WHERE LTD BENEFIT IS DIRECTLY INTEGRATED WITH SOCIAL SECURITY

#### PRIMARY AND FAMILY BENEFITS

#### ONLY OR IN COMBINATION WITH OTHER INCOME SOURCES

(Six-Month Elimination Period; Calendar Year of Issue Excluded; All Ages; Males, Females, and Sex Unknown Combined)

Calendar Years of Experience 1971-75

NONJUMBO ALL EMPLOYEE CLASSES

| Indirect Integration<br>Clas⊴ification               | Relationship between<br>LTD Benefit and Salary | Relationship between Disability Income Provided during Elimination Period and Salary | Number of<br>Experience<br>Units | Life<br>Years<br>Exposed | Number<br>of<br>Claims | Ratio of<br>Actual<br>Claims to<br>Tabular<br>Claims* |
|--|--|--|----------------------------------|--------------------------|------------------------|---|
| None or a nonduplication level less than 60%         | 50% or less                                    | 50% or less<br>Greater than 50%  | 1,025<br>149                     | 330,559<br>49,325        | 918<br>124             | 82%<br>71   |
|  |  | Subtotal   | 1,174                            | 379,884                  | 1,042                  | 80%   |
|  | Greater than 50%                               | 50% or less<br>Greater than $50\%$   | 4,316<br>427                     | 800,694<br>115,097       | 2,673<br>422           | 99%<br>109  |
|  | j  | Subtotal   | 4,743                            | 915,791                  | 3,095                  | 100%  |
|  | Subtotal                                       |  | 5,917                            | 1,295,675                | 4,137                  | 94%   |
| Nonduplication level greater than or equal to $60\%$ | 50% or less                                    | 50% or less<br>Greater than 50%  | 128<br>42                        | 41,708<br>18,645         | 172<br>167             | 120%<br>240   |
|  |  | Subtotal   | 170                              | 60,353                   | 339                    | 159%  |
|  | Greater than 50%                               | —<br>50% or less<br>Greater than 50%   | 454<br>557                       | 53,837<br>133,767        | 207<br>424             | 114%<br>96  |
|  |  | Subtotal   | 1,011                            | 187,604                  | 631                    | 101%  |
|  | Subtotal                                       |  | 1,181                            | 247,957                  | 970                    | 116%  |
| Total  |  |  | 7,098                            | 1,543,632                | 5,107                  | 98%   |

<sup>\*</sup> Tabular claims were calculated by applying to actual age-sex-group exposures the crude rates of disablement shown in Table 1A.

analysis of the termination rates of only the claims that were included in the rates of disablement study. Termination rates for these claims were found to be generally from 10 to 15 percent higher than those shown in Table D-1.

The actual number of claims that terminated by death or recovery is shown in Table D-1A. Ratios of the actual terminations to the number of terminations that would have been produced by application of termination rates from the 1964 Commissioners Disability Table (CDT) to

EXHIBIT I

ANALYSIS OF THE EXPERIENCE OF TABLE 1A (SIX-MONTH, NONJUMBO), TABLE 2
(THREE-MONTH, ALL EXPERIENCE), AND TABLE 3 (TWELVE-MONTH,
ALL EXPERIENCE) BY CONTRIBUTING COMPANY

|             | TABLE 1A                               |              | TABL                   | Е 2          | TABLE 3                |              |  |
|-------------|--|--------------|------------------------|--------------|------------------------|--------------|--|
| Company     | % of Total<br>Exposure                 | Ratio<br>A/T | % of Total<br>Exposure | Ratio<br>A/T | % of Total<br>Exposure | Ratio<br>A/T |  |
| r           | 9%                                     | 97%          | 3%                     | 65%          | 11%                    | 115%         |  |
| II          | $\begin{bmatrix} 3 \\ 7 \end{bmatrix}$ | 85           | 6                      | 92           | 6                      | 73           |  |
| III         | 7                                      | 127          | 17                     | 108          | 30                     | 136          |  |
| [ <b>V</b>  | 3                                      | 100          | 9                      | 124          | 1                      | 98           |  |
| V <i></i>   | 11                                     | 96           | 14                     | 91           | 4                      | 68           |  |
| /1          | 1 1                                    | 89           | 3                      | 106          | 0                      | 0            |  |
| /II         | 5                                      | 110          | 10                     | 98           | 2                      | 173          |  |
| /III        | 18                                     | 90           | 8                      | 69           | 2                      | 89           |  |
| X           | 29                                     | 100          | 0                      | 0            | 33                     | 97           |  |
| <b></b>     | 1                                      | 84           | 1                      | 73           | 4                      | 13           |  |
| (Ι          | 10                                     | 98           | 26                     | 104          | i                      | 0            |  |
| ζ <b>ΙΙ</b> | 3                                      | 129          | 3                      | 146          | 6                      | 76           |  |
| All         | 100%                                   | 100%         | 100%                   | 100%         | 100%                   | 100%         |  |

the Table D-1 exposures are presented in Table D-1B. Table D-1C compares the values of a monthly benefit of \$1 payable for a maximum period of sixty months with the values of a similar benefit payable to age 65. The illustrations are done on two alternate bases, each using a 3 percent interest discount. One basis was the Table D-1 crude termination rates for the first six years, regardless of the actual number of terminations in each duration-age cell, and the 1964 CDT rates thereafter. The other basis uses the termination rates from the 1964 CDT throughout. It should be noted that previous reports used the Table D-1 crude termination rates for the first four years and the 1964 CDT rates thereafter. Attention is directed to Exhibit A on page 258, which traces for two age groups on a basis consistent with previous reports the ratios of annuity

#### TABLE D-1

## GROUP LONG-TERM DISABILITY INSURANCE CRUDE TERMINATION RATES PER 1,000 CLAIMS EXPOSED TO DEATH OR RECOVERY

(Six-Month Elimination Period; Calendar Years of Experience 1962-75)

|  | AGE AT DISABLEMENT  |  |   |  |  |  |  |  |
|--|---|--|---|--|--|--|--|--|
| DURATION OF DISABLEMENT  | Under 30  | 30-39  | Under 40  | 40-49  | 50-59  | 60-64  |  |  |
|  | Male and Female Combined  |  |   |  |  |  |  |  |
| 7th month. 8th month. 9th month. 10th month. 11th month. 12th month. 13th month. 13th month. 14th month. 15th month. 15th month. 15th month. 15th month. 15th month. 17th month. 17th month. 12th month. 20th month. 21st month. 22d month. 23d month. 24th month. 24th month. 25th month. 26th wear. 36th year. 4th year. 5th year. 6th year. 7th year. 8th year. | 62.8<br>54.6<br>53.7<br>321.4<br>51.3<br>53.7<br>53.7<br>32.4<br>26.1<br>30.9<br>33.1<br>23.9<br>26.2<br>36.0<br>354.9<br>266.4<br>99.2 | 42.6<br>54.6<br>52.7<br>45.3<br>43.2<br>45.2<br>252.1<br>43.4<br>35.1<br>29.7<br>31.5<br>25.9<br>22.7<br>16.9<br>21.2<br>23.2<br>21.3<br>27.2<br>21.3<br>27.4<br>66.7<br>48.7<br>66.7<br>67.2† | 49.1<br>60.9<br>58.3<br>51.1<br>46.9<br>48.0<br>276.0<br>45.9<br>41.0<br>37.0<br>30.0<br>29.9<br>27.4<br>25.8<br>21.8<br>18.4<br>22.0<br>24.1<br>25.6<br>29.5<br>69.5<br>55.1<br>60.7 | 34.5<br>40.2<br>37.5<br>32.6<br>29.3<br>28.8<br>186.6<br>26.7<br>24.9<br>23.0<br>17.9<br>18.2<br>14.7<br>10.9<br>11.4<br>11.7<br>15.4<br>18.8<br>127.3<br>68.1<br>48.9<br>47.0<br>41.3<br>52.5 | 22.9<br>25.2<br>23.6<br>21.8<br>19.6<br>16.9<br>123.2<br>16.0<br>14.4<br>13.0<br>11.7<br>10.2<br>12.1<br>12.0<br>9.7<br>8.8<br>7.9<br>9.0<br>126.5<br>87.5<br>63.9<br>60.8<br>62.8<br>53.3 | 17.8<br>18.2<br>18.1<br>14.0<br>11.1<br>13.2<br>88.9<br>12.1<br>10.0<br>10.0<br>9.4<br>9.8<br>8.3<br>6.2<br>8.2<br>104.3<br>81.4<br>81.3<br>84.5<br>33.3<br>34.3 |  |  |
|  | Male Only   |  |   |  |  |  |  |  |
| 1st year (last 6 months) 2d year 3d year 4th year 5th year 6th year 7th year 8th year  | 364.7<br>287.5<br>107.2<br>72.0†<br>58.5*<br>73.6*  | 265.7<br>279.0<br>180.2<br>107.7<br>63.5<br>23.1*<br>67.1†<br>41.0*  | 289.5<br>305.8<br>210.8<br>107.8<br>65.5<br>32.1†<br>68.6†<br>31.7*   | 179.2<br>166.9<br>120.5<br>67.1<br>49.9<br>46.2<br>51.4<br>61.2  | 119.4<br>122.8<br>84.8<br>65.5<br>64.8<br>68.4<br>52.7<br>54.0   | 86.2<br>105.9<br>81.8<br>78.3<br>50.8<br>73.4<br>32.2<br>15.3  |  |  |
|  | Female Only   |  |   |  |  |  |  |  |
| 1st year (last 6 months)<br>2d year<br>3d year<br>4th year<br>5th year<br>6th year<br>7th year<br>8th year   | 339.4<br>231.9<br>87.2†<br>88.8†<br>110.7*<br>96.5*   | 229.6<br>262.3<br>182.5<br>80.8<br>70.9<br>83.7<br>53.1*<br>105.1†   | 253.8<br>287.6<br>196.8<br>82.6<br>75.0<br>87.8<br>61.9†<br>105.9†  | 200.6<br>226.1<br>142.4<br>70.5<br>46.6<br>48.7<br>18.7*<br>33.0†  | 134.9<br>138.1<br>96.8<br>57.7<br>45.6<br>42.2<br>42.4<br>50.5†  | 100.3<br>97.0<br>80.5<br>48.0<br>33.8<br>161.9<br>38.5<br>159.7  |  |  |

<sup>\*</sup> Involves fewer than five terminations.

<sup>†</sup> Involves fewer than ten terminations.

values based on the Table D-1 crude termination rates for the first four years and the 1964 CDT rates thereafter to those based on the 1964 CDT rates throughout, as shown in Table D-1C in the last six reports for plans providing a monthly benefit to age 65.

Table D-1D shows male and female disabled life annuity values for a benefit payable to age 65, based on the male and female claims, respec-

TABLE D-1A

GROUP LONG-TERM DISABILITY INSURANCE
NUMBER OF CLAIMS TERMINATED BY DEATH OR RECOVERY
(Six-Month Elimination Period; Calendar Years of Experience 1962-75)

| Duration of Disablement  | Age at Disablement                      |  |  |   |  |   |  |  |
|--|---|--|--|---|--|---|--|--|
| DURATION OF DISABLEMENT  | Under 30                                | 30-39  | Under 40   | 40-49   | 50-59  | 60–64                                     |  |  |
|  | Male and Female Combined                |  |  |   |  |   |  |  |
| 1st year (last 6 months)<br>2d year<br>3d year<br>4th year<br>5th year<br>6th year<br>7th year<br>8th year | 511<br>279<br>100<br>21<br>11<br>6<br>4 | 771<br>452<br>175<br>59<br>28<br>14<br>10    | 1282<br>731<br>275<br>80<br>39<br>20<br>14<br>10 | 1462<br>937<br>401<br>153<br>76<br>52<br>30<br>27 | 1988<br>1430<br>691<br>367<br>246<br>164<br>68<br>41 | 682<br>520<br>235<br>101<br>26<br>13<br>3 |  |  |
|  | Male Only                               |  |  |   |  | _   |  |  |
| 1st year (last 6 months). 2d year. 3d year. 4th year. 5th year. 6th year. 7th year.                        | 6 3                                     | 506<br>285<br>107<br>41<br>16<br>4<br>7      | 829<br>463<br>171<br>55<br>22<br>7<br>9          | 916<br>552<br>265<br>106<br>56<br>35<br>26<br>22  | 1454<br>1054<br>516<br>297<br>208<br>140<br>55<br>33 | 536<br>430<br>193<br>88<br>22<br>10<br>3  |  |  |
|  | Female Only                             |  |  |   |  |   |  |  |
| 1st year (last 6 months)<br>2d year<br>3d year<br>4th year<br>5th year<br>6th year<br>7th year<br>8th year | 5 3                                     | 265<br>167<br>68<br>18<br>12<br>10<br>3<br>6 | 453<br>268<br>104<br>25<br>17<br>13<br>5         | 546<br>385<br>136<br>47<br>20<br>17<br>4<br>5     | 534<br>376<br>175<br>70<br>38<br>24<br>13<br>8       | 146<br>90<br>42<br>13<br>4<br>3<br>0      |  |  |

#### TABLE D-1B

# GROUP LONG-TERM DISABILITY INSURANCE RATIOS OF ACTUAL CLAIMS TERMINATED BY DEATH OR RECOVERY TO NUMBER OF TERMINATIONS EXPECTED FROM THE 1964 COMMISSIONERS DISABILITY TABLE\*

(Six-Month Elimination Period; Calendar Years of Experience 1962-75)

| DURATION OF DISABLEMENT  | ALL<br>AGES OF<br>DIS-  | AGE AT DISABLEMENT  |   |  |   |  |   |  |
|--|---|---|---|--|---|--|---|--|
|  | MENT<br>COM-<br>BINED   | Under<br>30   | 30-39   | Under<br>40  | 40-49   | 50-59  | 60-64   |  |
| Management of the Company of the Com | Male and Female Combined                                      |   |   |  |   |  |   |  |
| 1st year (last 6 months). 2d year. 3d year. 4th year. 5th year. 6th year. 7th year. 8th year.  | 36.4%<br>80.0<br>73.1<br>60.9<br>62.6<br>72.9<br>64.2<br>72.3 | 59.5%<br>114.1<br>115.4<br>57.1<br>58.0<br>70.4†<br>89.6†<br>42.5†      | 48.7%<br>98.8<br>92.1<br>68.5<br>62.6<br>57.1<br>84.2<br>99.8†    | 52.5%<br>104.2<br>99.8<br>65.2<br>61.2<br>60.7<br>85.7<br>85.9     | 40.2%<br>79.7<br>77.3<br>57.5<br>54.2<br>62.9<br>60.0<br>79.2   | 32.4%<br>72.4<br>65.4<br>59.8<br>67.4<br>77.5<br>64.8<br>69.3  | 26.1%<br>75.8<br>67.7<br>68.3<br>48.8<br>90.4<br>36.7†<br>37.3†     |  |
|  | Male Only   |   |   |  |   |  |   |  |
| 1st year (last 6 months)<br>2d year  | 35.0%<br>76.7<br>70.5<br>62.8<br>65.7<br>75.1<br>69.4<br>71.0 | 62 .1%<br>117 .3<br>124 .6<br>61 .7<br>53 .6†<br>53 .7†<br>79 .0†       | 51.3%<br>101.1<br>91.6<br>75.8<br>59.6<br>27.1†<br>91.4†<br>60.9† | 55.1%<br>106.6<br>102.3<br>72.0<br>57.8<br>35.2†<br>88.4†<br>44.7† | 38.6%<br>71.3<br>73.2<br>56.6<br>55.3<br>61.8<br>74.7<br>92.3   | 31.4%<br>70.2<br>63.3<br>61.3<br>71.7<br>84.3<br>67.7<br>70.3  | 25.3%<br>77.0<br>67.9<br>73.2<br>51.4<br>78.6<br>35.5†<br>16.7†     |  |
|  |   | Female Only   |   |  |   |  |   |  |
| 1st year (last 6 months) 2d year 3d year 4th year 5th year 6th year 7th year 8th year  | 39.7%<br>88.6<br>80.4<br>55.2<br>53.1<br>66.1<br>48.7<br>75.9 | 55.2%<br>109.2<br>100.5<br>50.2†<br>66.0†<br>101.5†<br>103.7†<br>129.7† | 44.3%<br>95.0<br>92.7<br>56.9<br>66.5<br>98.2<br>72.3†<br>156.1†  | 48.3%<br>100.2<br>95.5<br>54.8<br>65.7<br>97.0<br>80.2†<br>151.0†  | 43.2%<br>96.5<br>86.5<br>59.6<br>51.7<br>65.2<br>27.1†<br>49.8† | 35.5%<br>79.0<br>72.3<br>54.0<br>50.5<br>52.1<br>54.4<br>65.8† | 29.4%<br>70.5<br>66.8<br>44.9<br>34.1†<br>173.4†<br>42.3†<br>173.6† |  |

<sup>\*</sup> As published by the Health Insurance Association of America, Table B1, Vol. III.

<sup>†</sup> Involves fewer than ten terminations.

tively, included in Table D-1C. There were 28,704 male and 10,889 female claims in this analysis. As was done in Table D-1C, illustrative values are shown on two alternate bases. In making any sex comparisons, the reader is reminded that the 1964 CDT is a unisex table.

The claim termination experience is analyzed further by examining, by claim incurral year during the period 1962–75, the ratio for all ages combined of the actual terminations to the number of terminations that would have been produced by application of the termination rates from the 1964 CDT to the Table D-1 exposures associated with the claims incurred. The results are presented in Table D-1E.

Tables D-2, D2-A, D-2B, D-2C, D-2D, and D-2E analyze the experi-

TABLE D-1C

GROUP LONG-TERM DISABILITY INSURANCE
ILLUSTRATIVE VALUES OF A MONTHLY BENEFIT OF \$1 PAYABLE FOR
VARIOUS BENEFIT PERIODS, DISCOUNTED AT 3 PERCENT INTEREST
(Six-Month Elimination Period; Males and Females Combined)

|   |   | LUE AS OF END<br>IMINATION PER              |                                  | VALUE AS OF END OF<br>TWELFTH MONTH OF DISABLEMENT     |   |                                  |  |  |
|---|---|---|----------------------------------|--|---|----------------------------------|--|--|
| AGE AT<br>DISABLEMENT                     | Based on<br>Table D-1<br>Rates of<br>Termi-<br>nation*  | Based on<br>1964 CDT                        | Ratio to<br>1964 CDT             | Based on<br>Table D-1<br>Rates of<br>Termi-<br>nation* | Based on<br>1964 CDT                        | Ratio to<br>1964 CDT             |  |  |
|   | Benefit Payable for a Maximum of 60 Months but Not beyond Age 6 with First Payment Due at End of Elimination Period |   |                                  |  |   |                                  |  |  |
| 25.5<br>35.5<br>45.5<br>55.5<br>62.5      | \$23.12<br>28.79<br>35.16<br>40.69<br>20.23   | \$16.59<br>18.44<br>21.71<br>26.85<br>14.91 | 139%<br>156<br>162<br>152<br>136 | \$27.25<br>32.07<br>37.19<br>40.66<br>16.23            | \$28.46<br>30.86<br>33.50<br>36.68<br>15.77 | 96%<br>104<br>111<br>111<br>103  |  |  |
|   |   | Benefit Pay                                 | able to Age 6.<br>at End of Eli  |  |   |                                  |  |  |
| 25.5.<br>35.5.<br>45.5.<br>55.5.<br>62.5. | \$48.53<br>65.58<br>75.70<br>60.78<br>20.23   | \$32.62<br>38.72<br>42.87<br>38.40<br>14.91 | 149%<br>169<br>177<br>158<br>136 | \$65.26<br>82.00<br>87.76<br>63.92<br>16.23            | \$63.86<br>73.54<br>73.57<br>55.60<br>15.77 | 102%<br>112<br>119<br>115<br>103 |  |  |

<sup>\*</sup>Annuity values are based on the crude, ungraduated, combined male and female termination rates from Table D-1 for the first six years and on the 1964 Commissioners Disability Table rates thereafter.

ence of terminations for plans with a three-month elimination period and are similar in form and content to the corresponding tables of the D-1 series with two exceptions. The experience shown in Tables D-2, D-2A, D-2B, and D-2E has been truncated at six years instead of the eight years that was used for the six-month elimination period plans. Also, the crude termination rates from Table D-2 are used for four years (instead of the six years that was used for the six-month elimination period plans), with the 1964 CDT termination rates used thereafter, in calculating one of the two sets of illustrative values in Tables D-2C and D-2D. The number of claims exposed to termination was 19,129, of which 4,359 and 1,983 emanated from the 1971-75 and 1962-70 portions, respectively, of

TABLE D-1D

GROUP LONG-TERM DISABILITY INSURANCE
ILLUSTRATIVE VALUES, UNDER PLANS WITH A SIX-MONTH
ELIMINATION PERIOD, OF A MONTHLY BENEFIT OF \$1,
DISCOUNTED AT 3 PERCENT INTEREST, PAYABLE TO AGE 65,
WITH FIRST PAYMENT DUE AT END OF
ELIMINATION PERIOD

|   |  | LUE AS OF END<br>IMINATION PER              |                                  | VALUE AS OF END OF<br>TWELFTH MONTH OF DISABLEMENT |   |                                  |  |
|---|--|---|----------------------------------|--|---|----------------------------------|--|
| AGE AT<br>DISABLEMENT                     | Based on<br>Table D-1<br>Rates of<br>Termi-<br>nation* | Based on<br>1964 CDT                        | Ratio to<br>1964 CDT             | Based on<br>Table D-1<br>Termi-<br>nation*         | Based on<br>1964 CDT                        | Ratio to                         |  |
| ·*************************************    | Male Only  |   |                                  |  |   |                                  |  |
| 25.5<br>35.5.<br>45.5.<br>55.5.           | \$46.46<br>64.65<br>78.49<br>61.09<br>20.26            | \$32.62<br>38.72<br>42.87<br>38.40<br>14.91 | 142%<br>167<br>183<br>159<br>136 | \$63.57<br>82.31<br>90.40<br>63.99<br>16.20        | \$63.86<br>73.54<br>73.57<br>55.60<br>15.77 | 100%<br>112<br>123<br>115<br>103 |  |
|   |  |   | Femal                            | e Only   |   |                                  |  |
| 25.5.<br>35.5.<br>45.5.<br>55.5.<br>62.5. | \$51.76<br>67.44<br>70.30<br>59.97<br>20.09            | \$32.62<br>38.72<br>42.87<br>38.40<br>14.91 | 159%<br>174<br>164<br>156<br>135 | \$67.69<br>81.94<br>82.52<br>63.86<br>16.33        | \$63.86<br>73.54<br>73.57<br>55.60<br>15.77 | 106%<br>111<br>112<br>115<br>104 |  |

<sup>\*</sup> Annuity values are based on the crude, ungraduated, male or female termination rates from Table D-1 for the first six years and on the 1964 Commissioners Disability Table rates thereafter.

TABLE D-1E

### GROUP LONG-TERM DISABILITY INSURANCE RATIOS OF ACTUAL CLAIMS TERMINATED BY DEATH OR RECOVERY TO NUMBER OF TERMINATIONS EXPECTED FROM THE 1964 COMMISSIONERS DISABILITY TABLE\*

(Six-Month Elimination Period; Calendar Years of Experience 1962-75)

#### ALL AGES OF DISABLEMENT COMBINED

|       |   |                               |  |  |  |  | YEAR OF I                                     | Disablement                  |                      |      |      |      |   |
|-------|---|-------------------------------|--|--|--|--|---|------------------------------|----------------------|------|------|------|---|
|       | DURATION OF DISABLEMENT   | 1965 and<br>Prior             | 1966   | 1967   | 1968   | 1969   | 1970  | 1971                         | 1972                 | 1973 | 1974 | 1975 | All Years   |
|       |   |                               | ·  |  |  | М  | Tale and Fen                                  | nale Combine                 | ed                   | ·    |      |      |   |
| 2 2 2 | 1st year (last 6 months) 2d year 3d year 4th year 5th year 6th year 7th year 8th year | 91.6<br>84.2<br>86.6<br>137.6 | 41.6%<br>94.7<br>87.7<br>80.2<br>74.4<br>37.8<br>65.8<br>91.1  | 47.1%<br>100.8<br>84.3<br>73.8<br>44.5<br>74.1<br>69.9<br>82.8 | 41.7%<br>87.7<br>83.5<br>58.9<br>75.8<br>74.5<br>60.3<br>42.9† | 37.6%<br>86.7<br>72.6<br>68.4<br>68.5<br>58.0<br>22.8† | 74.5<br>74.4<br>56.0<br>52.0<br>50.0          | 82.7<br>73.1<br>48.6<br>59.4 | 79.9<br>65.5<br>44.5 | 69.7 | 59.2 |      | 36.4%<br>80.0<br>73.1<br>60.9<br>62.6<br>72.9<br>64.2<br>72.3 |
|       |   |                               |  |  | <del></del>  |  | Male  | Only                         | ·                    | ·    | ·    | ·    |   |
|       | 1st year (last 6 months)<br>2d year<br>3d year<br>4th year<br>5th year<br>6th year<br>7th year<br>8th year  | 88.8<br>74.7                  | 41.4%<br>98.2<br>78.4<br>85.6<br>78.7<br>50.4<br>74.6<br>105.1 | 46.3%<br>94.9<br>74.1<br>77.9<br>46.0<br>77.2<br>83.1<br>72.6  | 41.8%<br>83.3<br>79.6<br>56.2<br>85.2<br>72.2<br>57.4<br>13.5† | 35.5%<br>82.7<br>72.0<br>77.1<br>65.4<br>56.5<br>27.8† | 36.8%<br>67.3<br>71.5<br>57.6<br>56.1<br>55.1 | 77.0<br>71.6<br>51.6<br>59.1 |                      | 68.5 | 56.4 |      | 35.0%<br>76.7<br>70.5<br>62.8<br>65.7<br>75.1<br>69.4<br>71.0 |

<sup>\*</sup> As published by the Health Insurance Association of America, Table B1, Vol. III.

<sup>†</sup> Involves fewer than ten terminations.

TABLE D-1E-Continued

|  |   |   |  |   |   | YEAR OF D   | ISABLEMENT                            |                               |      |      |      | Year of Disablement   |  |  |  |  |  |  |  |  |
|--|---|---|--|---|---|---|---------------------------------------|-------------------------------|------|------|------|---|--|--|--|--|--|--|--|--|
| DURATION OF DISABLEMENT  | 1965 and<br>Prior   | 1966  | 1967   | 1968  | 1969  | 1970  | 971                                   | 1972                          | 1973 | 1974 | 1975 | All Years   |  |  |  |  |  |  |  |  |
|  | <u> </u>  |   |  |   |   | Female  | e (Inly                               | <u>'</u>                      |      |      |      | · · · · · · · · · · · · · · · · · · ·                         |  |  |  |  |  |  |  |  |
| 1st year (last 6 months)<br>2d year<br>3d year<br>4th year<br>5th year<br>6th year<br>7th year<br>8th year | 53.1%<br>90.2<br>99.0<br>111.3<br>69.2<br>112.3<br>79.4†<br>66.6† | 41.9%<br>85.0<br>113.7<br>63.1<br>61.5†<br>0.0†<br>39.3†<br>48.9† | 49.3%<br>115.7<br>112.9<br>61.4<br>40.0†<br>65.4†<br>33.1†<br>109.4† | 41.6%<br>99.4<br>94.5<br>66.4<br>48.2†<br>81.7<br>69.3†<br>113.5† | 42.8%<br>96.8<br>74.1<br>43.5<br>77.2<br>62.1<br>9.2† | 40.0° /.<br>94.8<br>83.6<br>50.5<br>38.2<br>33.0† | 40.8%<br>98.8<br>77.7<br>39.2<br>64.2 | 31.8%<br>88.5<br>70.9<br>43.0 | 72.6 | 65.0 |      | 39.7%<br>88.6<br>80.4<br>55.2<br>53.1<br>66.1<br>48.7<br>75.9 |  |  |  |  |  |  |  |  |

<sup>\*</sup>As published by the Health Insurance Association of America, Table B1, Vol. III.

<sup>†</sup> Involves fewer than ten terminations.

#### TABLE D-2

#### GROUP LONG-TERM DISABILITY INSURANCE CRUDE TERMINATION RATES PER 1,000 CLAIMS EXPOSED TO DEATH OR RECOVERY

(Three-Month Elimination Period; Calendar Years of Experience 1962-75)

|   |  |   | AGE AT DI  | SABLEMENT  |  |  |
|---|--|---|--|--|--|--|
| DURATION OF DISABLEMENT   | Under 30   | 30-39   | Under 40   | 40-49  | 50-59  | 60-64  |
|   |  | М   | ale and Fen  | iale Combi   | ned  |  |
| 4th month 5th month 6th month 7th month 8th month 9th month 10th month 11th month 12th month 13th month 14th month 15th month 14th month 15th month 16th month 17th month 18th month 12th month 18th month 17th month 12th month 12th month 12th month 12th month 12th month 12th month 20th month 21st month 21st month 22d month 23d month 24th month 24th month 25th month 26th year 36th year 5th year 6th year | 123 .7<br>149 .6<br>139 .3<br>120 .1<br>102 .3<br>95 .7<br>84 .2<br>75 .4<br>85 .1<br>645 .0<br>79 .2<br>69 .7<br>59 .1<br>40 .0†<br>38 .1<br>40 .2†<br>29 .8†<br>29 .4†<br>45 .3†<br>30 .4*<br>27 .1†<br>418 .2<br>242 .4<br>48 .1*<br>51 .4*<br>20 .0* | 112.7<br>127.9<br>118.4<br>101.4<br>81.3<br>58.5<br>49.3<br>56.1<br>53.3<br>549.6<br>47.0<br>38.5<br>37.5<br>38.7<br>29.6<br>23.6<br>17.7†<br>14.2†<br>20.6<br>23.8†<br>21.5†<br>28.1<br>292.7<br>211.6<br>94.2<br>48.5†<br>32.5* | 117.2<br>136.7<br>126.8<br>108.7<br>89.5<br>72.6<br>62.4<br>63.0<br>64.5<br>588.3<br>57.9<br>44.7<br>44.5<br>39.1<br>32.3<br>28.9<br>21.5<br>18.9<br>26.4<br>30.2<br>24.2<br>27.8<br>335.1<br>220.2<br>83.2<br>49.4<br>47.3<br>30.5* | 92.4<br>105.1<br>93.2<br>78.5<br>70.3<br>59.7<br>48.4<br>43.4<br>38.4<br>480.7<br>32.0<br>28.9<br>24.2<br>22.5<br>22.9<br>20.9<br>17.1<br>13.2<br>12.3<br>14.4<br>13.3<br>15.3<br>213.0<br>144.6<br>81.1<br>25.9†<br>42.0† | 64. 7<br>70. 4<br>65. 4<br>54. 2<br>41. 6<br>34. 9<br>30. 6<br>25. 9<br>23. 3<br>344. 2<br>20. 6<br>16. 7<br>15. 2<br>16. 8<br>16. 5<br>13. 3<br>11. 4<br>10. 2<br>10. 1<br>9. 3<br>7. 7<br>8. 2<br>145. 4<br>95. 6<br>73. 1<br>72. 2<br>81. 4 | 45.1<br>53.5<br>48.0<br>41.4<br>36.0<br>23.1<br>18.9<br>18.8<br>16.1<br>264.2<br>14.7<br>12.8<br>13.2<br>12.6<br>10.3<br>7.0†<br>6.0†<br>10.6<br>11.4<br>7.3†<br>7.2†<br>8.0†<br>114.5<br>105.8<br>95.4<br>103.4<br>100.9* |
|   |  |   | Male   | Only   |  | ,  |
| 1st year (last 9 months)<br>2d year<br>3d year<br>4th year<br>5th year<br>6th year  | 663.5<br>388.4<br>188.6<br>40.6*<br>47.1*<br>0.0*  | 556.0<br>303.8<br>218.4<br>114.0†<br>88.1†<br>58.8*   | 599.6<br>332.3<br>211.3<br>95.8<br>78.2†<br>47.3*  | 465.4<br>213.5<br>142.3<br>91.2<br>23.2†<br>37.7†  | 326.3<br>143.9<br>99.8<br>77.4<br>77.2<br>86.6   | 269.1<br>112.1<br>115.8<br>86.5<br>98.4†<br>0.0*   |
|   |  |   | Female   | e Only   |  |  |
| 1st year (last 9 months)<br>2d year<br>3d year<br>4th year<br>5th year<br>6th year  | 619.9<br>455.2<br>318.6<br>58.0*<br>50.0*  | 540.3<br>276.3<br>202.1<br>68.1*<br>0.0*<br>0.0*  | 572.7<br>338.2<br>233.4<br>65.6†<br>11.4*<br>11.4*   | 505.5<br>212.2<br>149.2<br>58.8<br>29.8*<br>50.2*  | 388.7<br>149.4<br>83.0<br>60.3<br>55.3<br>64.1†  | 248.1<br>122.2<br>71.5<br>120.6<br>121.8*<br>505.6*  |

<sup>\*</sup> Involves fewer than five terminations.

<sup>†</sup> Involves fewer than ten terminations.

#### TABLE D-2A

### GROUP LONG-TERM DISABILITY INSURANCE NUMBER OF CLAIMS TERMINATED BY DEATH OR RECOVERY

(Three-Month Elimination Period; Calendar Years of Experience 1962-75)

| _  |                                 |                              | AGE AT DIS                        | ABLEMENT                           |                                      |                                   |
|--|---------------------------------|------------------------------|-----------------------------------|------------------------------------|--------------------------------------|-----------------------------------|
| DURATION OF DISABLEMENT  | Under 30                        | 30-39                        | Under 40                          | 40-49                              | 50-59                                | 60-64                             |
|  |                                 | М                            | ale and Fem                       | ale Combi                          | ned                                  |                                   |
| 1st year (last 9 months).<br>2d year.<br>3d year.<br>4th year.<br>5th year.<br>6th year  | 847<br>123<br>26<br>2<br>2<br>0 | 1055<br>175<br>62<br>13<br>5 | 1902<br>298<br>88<br>15<br>7<br>2 | 1951<br>336<br>127<br>41<br>7<br>9 | 2409<br>486<br>200<br>99<br>58<br>35 | 794<br>166<br>80<br>30<br>12<br>2 |
|  |                                 | A Party gray open            | Male                              | Only                               |                                      |                                   |
| 1st year (last 9 months)<br>2d year<br>3d year<br>4th year<br>5th year<br>6th year       | 65<br>13<br>1<br>1              | 616<br>105<br>37<br>9<br>5   | 1115<br>170<br>50<br>10<br>6<br>2 | 1174<br>214<br>83<br>31<br>5       | 1624<br>361<br>156<br>78<br>48<br>29 | 619<br>125<br>68<br>20<br>9       |
|  |                                 |                              | Female                            | Only                               | ·                                    |                                   |
| 1st year (last 9 months).<br>2d year.<br>3d year.<br>4th year.<br>5th year.<br>6th year. | 13<br>1<br>1                    | 439<br>70<br>25<br>4<br>0    | 787<br>128<br>38<br>5<br>1        | 777<br>122<br>44<br>10<br>2<br>4   | 785<br>125<br>44<br>21<br>10<br>6    | 175<br>41<br>12<br>10<br>3<br>2   |

#### TABLE D-2B

## GROUP LONG-TERM DISABILITY INSURANCE RATIOS OF ACTUAL CLAIMS TERMINATED BY DEATH OR RECOVERY TO NUMBER OF TERMINATIONS EXPECTED FROM THE 1964 COMMISSIONERS DISABILITY TABLE\*

(Three-Month Elimination Period; Calendar Years of Experience 1962-75)

| Duration of Disablement   | ALL<br>AGES OF<br>DIS-                        |  |  | Age at Di  | SABLEMEN  | т  |  |
|---|---|--|--|--|---|--|--|
| :   | MENT<br>COM-<br>BINED                         | Under<br>30  | 30-39  | Under<br>40  | 40-49   | 50-59  | 60~64  |
|   |   |  | Male and   | d Female (   | Combined  |  |  |
| 1st year (last 9 months) 2d year 3d year 4th year 5th year 6th year | 51.8%<br>91.7<br>82.9<br>69.6<br>67.1<br>82.0 | 72.6%<br>134.5<br>105.0<br>27.7†<br>38.2†<br>18.3† | 62.5%<br>106.0<br>107.5<br>66.3<br>45.5†<br>38.2†  | 66.6%<br>116.7<br>107.1<br>55.6<br>43.8†<br>33.6†  | 57.1%<br>90.9<br>87.9<br>68.5<br>28.7†<br>56.1† | 45.9%<br>83.2<br>71.4<br>68.4<br>80.0<br>100.4 | 39.8%<br>83.3<br>87.8<br>89.1<br>104.4<br>108.0†   |
|   |   |  |  | Male Only  | ,   |  |  |
| 1st year (last 9 months) 2d year 3d year 4th year 5th year 6th year | 49.8%<br>89.7<br>84.0<br>73.7<br>74.0<br>85.5 | 74.7%<br>124.9<br>81.7<br>23.4†<br>35.0†<br>0.0†   | 63.2%<br>110.0<br>111.0<br>80.2†<br>82.7†<br>69.0† | 67.9%<br>115.6<br>102.6<br>63.8<br>68.9†<br>52.2†  | 55.3%<br>91.1<br>86.5<br>77.0<br>25.7†<br>50.5† | 43.5%<br>82.3<br>74.6<br>72.4<br>85.5<br>106.8 | 40.6%<br>81.5<br>96.1<br>80.8<br>99.4†<br>0.0†     |
|   |   |  | F  | emale Onl  | у   |  |  |
| 1st year (last 9 months) 2d year 3d year 4th year 5th year 6th year | 55.7%<br>95.9<br>80.1<br>59.4<br>48.9<br>73.4 | 69.8%<br>146.4<br>138.0<br>33.4†<br>37.2†<br>45.9† | 61.4%<br>100.1<br>102.7<br>47.9†<br>0.0†<br>0.0†   | 64.9%<br>117.8<br>113.8<br>44.0†<br>10.2†<br>12.6† | 60.1%<br>90.6<br>90.6<br>49.6<br>33.1†<br>67.1† | 51.8%<br>85.5<br>62.0<br>56.4<br>61.2<br>79.1† | 37.4%<br>88.8<br>59.3<br>112.7<br>123.1†<br>541.3† |

<sup>\*</sup> As published by the Health Insurance Association of America, Table B1, Vol. III.

<sup>†</sup> Involves fewer than ten terminations.

TABLE D-2C

## GROUP LONG-TERM DISABILITY INSURANCE ILLUSTRATIVE VALUES OF A MONTHLY BENEFIT OF \$1 PAYABLE FOR VARIOUS BENEFIT PERIODS, DISCOUNTED AT 3 PERCENT INTEREST

(Three-Month Elimination Period; Males and Females Combined)

|   |  | UE AS OF END                               |                                   | 1  | LUE AS OF END<br>MONTH OF DI                |                                 |
|---|--|--|-----------------------------------|--|---|---------------------------------|
| AGE AT<br>Disablement                     | Based on<br>Table D-2<br>Rates of<br>Termi-<br>nation* | Based on<br>1964 CDT                       | Ratio to<br>1964 CDT              | Based on<br>Table D-2<br>Rates of<br>Termi-<br>nation* | Based on<br>1964 CDT                        | Ratio to<br>1964 CDT            |
|   | Benefit  |  |                                   | 60 Months by<br>End of Elim                            |   |                                 |
| 25.5.<br>35.5.<br>45.5.<br>55.5.<br>62.5. | \$13.76<br>18.61<br>23.32<br>31.05<br>18.96            | \$ 5.43<br>5.95<br>7.82<br>12.25<br>9.67   | 253°;<br>313<br>298<br>253<br>196 | \$24.59<br>29.31<br>33.78<br>37.58<br>16.04            | \$27.50<br>29.72<br>32.18<br>35.19<br>15.77 | 89%<br>99<br>105<br>107<br>102  |
|   |  |  |                                   | 5 with First P<br>nination Perio                       |   |                                 |
| 25.5.<br>35.5.<br>45.5.<br>55.5.<br>62.5. | \$25.85<br>38.16<br>46.38<br>45.72<br>18.96            | \$ 9.41<br>11.09<br>14.23<br>17.24<br>9.67 | 275%<br>344<br>326<br>265<br>196  | \$59.42<br>73.68<br>79.17<br>60.47<br>16.04            | \$63.86<br>73.54<br>73.57<br>55.60<br>15.77 | 93%<br>100<br>108<br>109<br>102 |

<sup>\*</sup> Annuity values are based on the crude, ungraduated, combined male and female termination rates from Table D-2 for the first four years and on the 1964 Commissioners Disability Table rates thereafter.

#### TABLE D-2D

# GROUP LONG-TERM DISABILITY INSURANCE ILLUSTRATIVE VALUES, UNDER PLANS WITH A THREE-MONTH ELIMINATION PERIOD, OF A MONTHLY BENEFIT OF \$1, DISCOUNTED AT 3 PERCENT INTEREST, PAYABLE TO AGE 65, WITH FIRST PAYMENT DUE AT END OF ELIMINATION PERIOD

|   |  | LUE AS OF END<br>IMINATION PER             |                                  |  | LUE AS OF END<br>MONTH OF DI                |                                 |  |  |  |  |
|---|--|--|----------------------------------|--|---|---------------------------------|--|--|--|--|
| Age at<br>Disablement                     | Based on<br>Table D-2<br>Rates of<br>Termi-<br>nation* | Based on<br>1964 CDT                       | Ratio to<br>1964 CDT             | Based on<br>Table D-2<br>Rates of<br>Termi-<br>nation* | Based on<br>1964 CDT                        | Ratio to<br>1964 CDT            |  |  |  |  |
|   |  |  | Male                             | Only   |   |                                 |  |  |  |  |
| 25.5.<br>35.5.<br>45.5.<br>55.5.<br>62.5. | \$26.88<br>36.51<br>47.39<br>46.73<br>18.86            | \$ 9.41<br>11.09<br>14.23<br>17.24<br>9.67 | 286%<br>329<br>333<br>271<br>195 | \$66.25<br>71.00<br>78.65<br>60.22<br>16.05            | \$63.86<br>73.54<br>73.57<br>55.60<br>15.77 | 104%<br>97<br>107<br>108<br>102 |  |  |  |  |
| İ   |  | Female Only                                |                                  |  |   |                                 |  |  |  |  |
| 25.5<br>35.5<br>45.5<br>55.5<br>62.5      | \$24.37<br>40.59<br>44.83<br>43.33<br>19.29            | \$ 9.41<br>11.09<br>14.23<br>17.24<br>9.67 | 259%<br>366<br>315<br>251<br>199 | \$50.93<br>77.53<br>80.30<br>61.27<br>16.02            | \$63.86<br>73.54<br>73.57<br>55.60<br>15.77 | 80%<br>105<br>109<br>110<br>102 |  |  |  |  |

<sup>\*</sup> Annuity values are based on the crude, ungraduated, male or female termination rates from Table D-2 for the first four years and on the 1964 Commissioners Disability Table rates thereafter.

## TABLE D-2E—GROUP LONG-TERM DISABILITY INSURANCE RATIOS OF ACTUAL CLAIMS TERMINATED BY DEATH OR RECOVERY TO NUMBER OF TERMINATIONS EXPECTED FROM THE 1964 COMMUNIONERS DISABILITY TABLE\*

(Three-Month Elimination Period; Calendar Years of Experience of 1962-75)

ALL AGES OF DISABLEMENT COMBINE.

|  |   |   |   |   |   | YEAR OF D                                       | ISABL: MENT                               |                                |                       |          |       |   |
|--|---|---|---|---|---|---|---|--------------------------------|-----------------------|----------|-------|---|
| DURATION OF DISABLEMENT  | 1965 and<br>Prior                                   | 1966  | 1967  | 1968  | 1969  | 1070  | 111 1                                     | 1972                           | 1973                  | 1974     | 1975  | All Years                                     |
|  |   |   |   |   | М   | ale and Fem                                     | ale Combined                              | ì                              |                       | <u> </u> |       |   |
| 1st year (last 9 months)<br>2d year<br>3d year<br>4th year<br>5th year<br>6th year       | 58.4%<br>130.1<br>121.3<br>99.9<br>61.2†<br>114.5†  | 63.2%<br>120.1<br>92.6<br>105.8<br>22.3†<br>99.8†   | 57.5%<br>107.5<br>103.4<br>102.0<br>125.8<br>92.3†  | 61.0°7<br>107.7<br>99.2<br>90.9<br>70.8<br>87.1     | 57.0%<br>90.2<br>112.0<br>87.1<br>58.5<br>84.4    | 51.5°,<br>99.5<br>90.9<br>68.8<br>69.3<br>26.2† | 54.24,<br>104.3<br>86.4<br>49.4<br>114.7  | 51.9%<br>90.3<br>63.3<br>31.0  | 49.3%<br>74.7<br>52.6 |          | 44.5% | 51.8%<br>91.7<br>82.9<br>69.6<br>67.1<br>82.0 |
|  |   | ··································                  |   |   |   | Male  | Only                                      | · —!                           |                       | <u>'</u> |       | <u>'                                    </u>  |
| 1st year (last 9 months)<br>2d year<br>3d year<br>4th year<br>5th year<br>6th year       | 57.4%<br>150.2<br>112.8<br>93.0<br>73.6†<br>96.6†   | 64.1%<br>127.4<br>100.4<br>96.7†<br>24.5†<br>117.1† | 58.007<br>95.7<br>112.2<br>114.6<br>154.8<br>83.5†  | 60.6%<br>108.1<br>106.0<br>110.2<br>80.9†<br>102.7† | 54.6%<br>96.6<br>104.9<br>95.1<br>71.1<br>91.9†   | 48 7',<br>93.6<br>87.8<br>66.5<br>64.4<br>35.0† | 5 1 97 2<br>96.4<br>87 5<br>54.1<br>106.5 | 50.0%<br>90.2<br>62.7<br>34.3  | 46.4%<br>71.8<br>57.8 |          |       | 49.8%<br>89.7<br>84.0<br>73.7<br>74.0<br>85.5 |
|  |   | ····  |   | <u> </u>  |   | Female  | · Only                                    |                                |                       |          |       | '   |
| 1st year (last 9 months).<br>2d year.<br>3d year.<br>4th year.<br>5th year.<br>6th year. | 60.4%<br>83.1<br>137.1<br>114.9†<br>30.3†<br>158.0† | 61.2%<br>106.1<br>77.3†<br>122.9†<br>16.6†<br>60.3† | 56.5%<br>131.4<br>82.5†<br>71.7†<br>53.9†<br>111.5† | 61.8%<br>106.1<br>80.3†<br>38.6†<br>45.9†<br>47.6†  | 63.0%<br>72.7<br>130.0<br>67.0†<br>26.1†<br>62.7† | 58.177<br>114.6<br>98.9<br>74.9<br>83.3†        | 57.2%<br>124.4<br>83.0<br>35.8†<br>134.9† | 55.5%<br>90.4<br>64.2<br>24.0† | 54.8%<br>80.7<br>40.2 |          |       | 55.7%<br>95.9<br>80.1<br>59.4<br>48.9<br>73.4 |

<sup>\*</sup> As published by the Health Insurance Association of America, Table B1, Vol. III.

<sup>†</sup> Involves lewer than ten terminations,

the active lives experience, and the balance from experience units that were not included in the study of rates of disablement. Termination rates for the first year of disablement cover the nine months immediately following the elimination period.

For plans with a twelve-month elimination period, the experience of terminations is analyzed in Tables D-3, D-3A, D-3B, D-3C, D-3D, and D-3E. These tables are similar in format to the corresponding tables of the D-2 series. The number of claims exposed to termination was 3,357, of which 678 and 362 originated from the 1971–75 and 1962–70 portions, respectively, of the active lives experience, and the balance from experience units that were not included in the study of rates of disablement.

For both the six- and the three-month elimination period plans, the low first-year ratios shown in Tables D-1B and D-2B, respectively, would appear to be due to the shorter elimination periods of the individual health insurance experience underlying the first-year termination rates of the 1964 CDT.

The overall termination rates shown in this report, which includes one additional year of experience, for both six- and three-month elimination period plans, male and female combined, are slightly lower (varies by plan, age, duration, and sex) than those shown in last year's report. The financial consequences of this change are apparent from a comparison of Table D-1C and Table D-2C values between last year's and this year's report. The variation from one report to the next underscores the need to exercise caution and judgment when using the disabled life annuity values shown in Tables D-1C, D-2C, and D-3C for actuarial purposes such as reserving.

TABLE D-3

## GROUP LONG-TERM DISABILITY INSURANCE CRUDE TERMINATION RATES PER 1,000 CLAIMS EXPOSED TO DEATH OR RECOVERY

(Twelve-Month Elimination Period; Calendar Years of Experience 1962-75)

| DURATION OF   |  |   | Age at Dis   | SABLEMENT  |  |  |
|---|--|---|--|--|--|--|
| DISABLEMENT   | Under 30   | 30-39   | Under 40   | 40-49  | 50-59  | 60-64  |
|   |  |   | Male and Fem   | ale Combined   |  |  |
| 13th month. 14th month. 15th month. 16th month. 17th month. 18th month. 19th month. 20th month. 21st month. 22d month. 23d month. 24th month. 2d year. 3d year. 4th year. 5th year. | 17.7* 12.4* 6.4* 14.5* 22.3* 16.1* 17.1* 18.4* 9.6* 0.0* 10.6* 10.6* 145.3† 225.6† 134.2* 121.1* | 23.8† 35.4† 37.8† 10.4* 16.8* 30.1* 22.5* 18.7* 14.3* 14.9* 20.4* 15.9* 239.3* 108.8† 92.1* 30.1* | 21.5† 27.0† 26.5† 17.7* 19.0† 25.2* 20.7* 18.6* 10.1* 17.2* 14.2* 207.7 146.6 103.3† 49.8* | 12.6<br>17.5†<br>15.4†<br>13.1†<br>16.9<br>18.5†<br>13.5†<br>10.4*<br>14.4†<br>21.0†<br>15.2*<br>8.0*<br>163.0<br>139.7<br>110.9<br>61.2†<br>19.5* | 12.1<br>15.9<br>13.7<br>9.1<br>10.6<br>11.7<br>10.7<br>9.2<br>7.6+<br>8.7<br>13.7<br>14.0<br>128.9<br>97.4<br>71.6<br>72.4<br>79.3 | 15.6† 14.0† 11.5† 9.8* 7.9* 5.8* 4.8* 5.8* 11.1† 14.4† 111.0 87.3 50.5† 5.5* 83.3* |
| 6th year  | 437.5*   | 44.9*   | 118.2*  <br>Male   |  | 79.3   | 03.3   |
| _   |  |   |  |  |  |  |
| 2d year   | 124.3†<br>213.0†<br>162.0*<br>137.8*<br>569.3*   | 259.9<br>91.7†<br>98.5*<br>38.1*<br>61.5*   | 216.4<br>130.3<br>115.0†<br>62.1*<br>160.6*  | 152.1<br>129.5<br>113.4<br>46.9†<br>22.1*  | 128.5<br>93.9<br>78.3<br>75.9<br>81.6  | 113.1<br>89.8<br>40.8†<br>6.2*<br>100.0*   |
|   |  |   | Female   | Only   |  |  |
| 2d year   | 230.3*<br>280.5*<br>0.0*<br>0.0*<br>0.0*   | 108.4*<br>195.1*<br>50.0*<br>0.0*<br>0.0*   | 160.6†<br>227.1†<br>35.7*<br>0.0*<br>0.0*  | 218.1<br>195.8<br>93.6*<br>161.8*<br>0.0*  | 131.6<br>119.6<br>26.1*<br>49.7*<br>65.1*  | 96.6†<br>66.8*<br>129.3*<br>0.0*<br>0.0*   |

<sup>\*</sup> Involves fewer than five terminations.

<sup>†</sup> Involves fewer than ten terminations.

TABLE D-3A

GROUP LONG-TERM DISABILITY INSURANCE
NUMBER OF CLAIMS TERMINATED BY DEATH OR RECOVERY
(Twelve-Month Elimination Period; Calendar Years of Experience 1962–75)

| DURATION OF |                       |                   | AGE AT DIS              | SABLEMENT                |                             |                         |
|-------------|-----------------------|-------------------|-------------------------|--------------------------|-----------------------------|-------------------------|
| DISABLEMENT | Under 30              | 30-39             | Under 40                | 40-49                    | 50-59                       | 60-64                   |
|             |                       |                   | Male and Fem            | ale Combined             |                             |                         |
| 2d year     | 9<br>9<br>2<br>1<br>2 | 32<br>9<br>4<br>1 | 41<br>18<br>6<br>2<br>3 | 81<br>47<br>25<br>8<br>1 | 163<br>87<br>47<br>34<br>23 | 49<br>23<br>8<br>0      |
|             |                       | ·                 | Male                    | Only                     |                             |                         |
| 2d year     | 6<br>7<br>2<br>1<br>2 | 30<br>6<br>4<br>1 | 36<br>13<br>6<br>2<br>3 | 63<br>37<br>22<br>5      | 139<br>73<br>45<br>31<br>20 | 43<br>21<br>6<br>0<br>1 |
|             |                       |                   | Female                  | Only                     |                             |                         |
| 2d year     | 3<br>2<br>0<br>0      | 2<br>3<br>0<br>0  | 5<br>5<br>0<br>0<br>0   | 18<br>10<br>3<br>3<br>0  | 24<br>14<br>2<br>3<br>3     | 6<br>2<br>2<br>0<br>0   |

#### TABLE D-3B

## GROUP LONG-TERM DISABILITY INSURANCE RATIOS OF ACTUAL CLAIMS TERMINATED BY DEATH OR RECOVERY TO NUMBER OF TERMINATIONS EXPECTED FROM THE 1964 COMMISSIONERS DISABILITY TABLE\*

(Twelve-Month Elimination Period; Calendar Years of Experience 1962-75)

| DURATION OF DIS-                                       | ALL AGES OF DIS- ABLE- MENT              |  |  | AGE AT DI                                  | SABLEMENT                                 |  |  |
|--|--|--|--|--|---|--|--|
| ADELERI  | Com-<br>BINED                            | Under 30                                     | 30-39                                      | Under 40                                   | 40-49                                     | 50-59                                    | 60-64                                    |
|  |  |  | Male a                                     | nd Female C                                | ombined                                   |  |  |
| 2d year<br>3d year<br>4th year<br>5th year<br>6th year | 73.4° c<br>75.5<br>70.5<br>69.5<br>85.2  | 46.7%†<br>97.8†<br>77.3†<br>90.0†<br>401.4†  | 86.7°;<br>55.3†<br>64.8†<br>28.2†<br>52.7† | 72.0°,<br>70.8<br>69.1+<br>44.5+<br>133.8+ | 69.6%<br>84.9<br>93.7<br>67.9†<br>26.0†   | 73.8° 67.8<br>67.0<br>80.1<br>97.8       | 80.7%<br>72.5<br>47.2†<br>5.6†<br>89.2†  |
|  |  |  |  | Male Only                                  |   | •  | <u>-</u>                                 |
| 2d year  | 72.7%<br>72.2<br>74.0<br>69.5<br>89.9    | 40.0%†<br>92.3†<br>93.3†<br>102.4†<br>522.3† | 94.1%<br>46.6†<br>69.3†<br>35.7†<br>72.2†  | 75.1%<br>63.0<br>77.0†<br>55.4†<br>182.2†  | 64.9%<br>78.7<br>95.8<br>51.9†<br>29.6†   | 73.5%<br>70.1<br>73.2<br>84.0<br>100.6   | 82.2%<br>74.5<br>38.1†<br>6.2†<br>107.1† |
|  |  |  |  | Female Only                                | <i>'</i>                                  |  |  |
| 2d year<br>3d year<br>4th year<br>5th year<br>6th year | 77.1%<br>95.8<br>47.1†<br>69.5†<br>57.0† | 74.1%†<br>121.6†<br>0.0†<br>0.0†<br>0.0†     | 39.3%+<br>99.1+<br>35.2+<br>0.0+<br>0.0+   | 55.4%<br>109.7†<br>23.8†<br>0.0†<br>0.0†   | 93.1%<br>118.9<br>79.1†<br>179.4†<br>0.0† | 75.3%<br>89.3<br>24.4†<br>55.0†<br>80.2† | 70.3%<br>55.4†<br>120.8†<br>0.0†<br>0.0† |

<sup>\*</sup> As published by the Health Insurance Association of America, Table B1, Vol. III.

<sup>†</sup> Involves fewer than ten terminations.

#### TABLE D-3C

## GROUP LONG-TERM DISABILITY INSURANCE ILLUSTRATIVE VALUES OF A MONTHLY BENEFIT OF \$1 PAYABLE FOR VARIOUS BENEFIT PERIODS, DISCOUNTED AT 3 PERCENT INTEREST

### (Twelve-Month Elimination Period; Males and Females Combined)

|   |   | ALUE AS OF END                                       |                                  |  |  |  |
|---|---|--|----------------------------------|--|--|--|
| Age at<br>Disablement                     | Based on<br>Table D-3<br>Rates of<br>Termi-<br>nation*  | Based on<br>1964 CDT                                 | Ratio to<br>1964 CDT             |  |  |  |
|   | Benefit Payable for a Maximum of<br>60 Months but Not beyond Age 65<br>with First Payment Due at End<br>of Elimination Period |  |                                  |  |  |  |
| 25.5.<br>35.5.<br>45.5.<br>55.5.<br>62.5. | \$37.21<br>37.50<br>39.87<br>43.25<br>16.15   | \$30.28<br>33.03<br>36.02<br>39.53<br>15.77          | 123%<br>114<br>111<br>109<br>102 |  |  |  |
|   | Payr  | yable to Age 65<br>nent Due at En<br>limination Peri | d of                             |  |  |  |
| 25.5.<br>35.5.<br>45.5.<br>55.5.<br>62.5. | \$81.15<br>87.50<br>82.49<br>61.62<br>16.15   | \$63.86<br>73.54<br>73.57<br>55.60<br>15.77          | 127%<br>119<br>112<br>111<br>102 |  |  |  |

<sup>\*</sup> Annuity values are based on the crude, ungraduated, combined male and female termination rates from Table D-3 for the first four years and on the 1964 Commissioners Disability Table rates thereafter.

#### TABLE D-3D

GROUP LONG-TERM DISABILITY INSURANCE
ILLUSTRATIVE VALUES, UNDER PLANS WITH A TWELVEMONTH ELIMINATION PERIOD, OF A MONTHLY BENEFIT OF \$1, DISCOUNTED AT 3 PERCENT INTEREST,
PAYABLE TO AGE 65, WITH FIRST PAYMENT DUE AT
END OF ELIMINATION PERIOD

|                                  | VALUE AS OF END OF<br>EXIMINATION PERIOD                |   |                                   |  |  |  |
|----------------------------------|---|---|-----------------------------------|--|--|--|
| AGE AT<br>DISABLEMENT            | Based on<br>Table 1)-3<br>Rates of<br>Termi-<br>nation* | Based on<br>1964 CDT                        | Ratio to<br>1964 CDT              |  |  |  |
|                                  | Male Only   |   |                                   |  |  |  |
| 25.5                             | \$82.16<br>86.18<br>84.15<br>61.54<br>16.11             | \$63.86<br>73.54<br>73.57<br>55.60<br>15.77 | 12977<br>117<br>114<br>111<br>102 |  |  |  |
|                                  | Female Only   |   |                                   |  |  |  |
| 25.5.<br>35.5.<br>45.5.<br>55.5. | \$76.89<br>96.60<br>74.24<br>62.09<br>16.41             | \$63.86<br>73.54<br>73.57<br>55.60<br>15.77 | 120%<br>131<br>101<br>112<br>104  |  |  |  |

<sup>\*</sup> Annuity values are based on the crude, ungraduated, male or female termination rates from Table D-3 for the first four years and on the 1964 Commissioners Disability Table rates thereafter.

### TABLE D-3E—Group Long-Term Disability Insurance Ratios of Actual Claims Terminated by Death or Recovery to Number of Terminations Expected from the 1964 Commissioners Disability Table\*

#### (Twelve-Month Elimination Period; Calendar Years of Experience 1962-75)

#### ALL AGES OF DISABLEMENT COMBINED

| DURATION OF DISABLEMENT                                     | Year of Disablement                          |   |  |   |   |  |                                |        |               |      |      |                                       |
|---|--|---|--|---|---|--|--------------------------------|--------|---------------|------|------|---------------------------------------|
|   | 1965 and<br>Prior                            | 1966                                      | 1967                                       | 1968                                      | 1969                                    | 1970                                   | 1971                           | 1972   | 1973          | 1974 | 1975 | All Years                             |
|   | Male and Female Combined                     |   |  |   |   |  |                                |        |               |      |      |                                       |
| 2d year.<br>3d year.<br>4th year.<br>5th year.<br>6th year. |  | 74.7%<br>78.8†<br>84.6†<br>73.6†<br>37.0† | 73.3%<br>56.8†<br>55.1†<br>88.1†<br>101.5† | 64.7%<br>52.9<br>97.4<br>68.5†<br>123.6†  | 64.9%<br>114.5<br>76.0<br>94.5<br>67.9† | 89.4%<br>91.9<br>88.1<br>56.6†<br>4.4† | 89.2%<br>47.0<br>50.8<br>27.1† |        | 51.8%<br>50.4 |      |      | 73.4%<br>75.5<br>70.5<br>69.5<br>85.2 |
|   | Male Only                                    |   |  |   |   |  |                                |        |               |      |      |                                       |
| 2d year   | 55.2%†<br>134.2<br>51.3†<br>74.8†<br>197.8†  | 80.4%<br>82.2†<br>84.9†<br>64.2†<br>42.6† | 69.0%<br>63.8†<br>61.8†<br>81.7†<br>113.5† | 62.7%<br>43.0†<br>91.5<br>65.0†<br>137.6† | 54.7%<br>95.2<br>85.0<br>108.1<br>67.5† | 91.2%<br>96.2<br>85.3<br>56.6†<br>5.0† | 87.8%<br>50.1<br>57.0<br>19.5† |        |               |      |      | 72.7%<br>72.2<br>74.0<br>69.5<br>89.9 |
|   | Female Only                                  |   |  |   |   |  |                                |        |               |      |      |                                       |
| 2d year   | 72.4%e†<br>87.9†<br>35.6†<br>47.3†<br>142.9† | 38.7%†<br>56.6†<br>80.0†<br>117.7†        | 103.2%†                                    | 76.8%<br>114.5†<br>136.6†<br>96.5†        | 109.1%†<br>213.2<br>16.0†<br>70.9†      | 76.9%†<br>61.6†<br>107.5†<br>56.2†     | 97.5%<br>20.9†                 | 115.3† | 38.3†         |      |      | 95.8<br>47.1†                         |

<sup>\*</sup> As published by the Health Insurance Association of America, Table B1, Vol. III.

<sup>†</sup> Involves fewer than ten terminations.

#### EXHIBIT A

## GROUP LONG-TERM DISABILITY INSURANCE RATIOS OF ANNUITY VALUE BASED ON THE COMBINED TABLE D-1 EXPERIENCE FOR THE FIRST FOUR YEARS AND ON THE 1964 CDT RATES THEREAFTER TO THE ANNUITY VALUE BASED ON

THE 1964 CDT THROUGHOUT

BENEFIT PAYABLE TO AGE 65, WITH FIRST PAYMENT DUE AT END OF ELIMINATION PERIOD

(Six-Month Elimination Period; Males and Females Combined)

| AGE AT DISABLE-MENT 1962-1969 1962-1970 1962-1971 1962-1972 196 | CALENDAR YEARS OF DISABLED LIVES TERMINATION EXPERIENCE |              |             |             |             |             |             |  |  |  |
|---|---|--------------|-------------|-------------|-------------|-------------|-------------|--|--|--|
|   | 1962-1973   | 1962-1974    | 1962-1975   |             |             |             |             |  |  |  |
|   | Ratio Based on Values as of End of Elimination Period   |              |             |             |             |             |             |  |  |  |
| 45.5<br>55.5  | 139%<br>142   | 145%<br>144  | 141%<br>143 | 157%<br>150 | 159%<br>149 | 161%<br>150 | 169%<br>155 |  |  |  |
|   | Ra  | tio Based on | Values as o | f End of Tw | elfth Month | of Disablem | ent         |  |  |  |
| 45.5<br>55.5  | 99%<br>104  | 101%<br>105  | 99%<br>104  | 108%<br>109 | 108€<br>108 | 110%<br>110 | 114%<br>112 |  |  |  |