# **Report of the Society of Actuaries Group** Life Insurance Experience Committee

# **Waiver Experience Report**

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## Report of the Society of Actuaries Group Life Insurance Experience Committee

### **Waiver Experience Report**

### Abstract

This report is provided as a supplement to the report on the 2013 Group Term Life Experience Study conducted by the Society of Actuaries' Group Life Insurance Experience Committee. The Committee's report was initially presented in May 2013 and revised in January 2014. A copy of the report can be found at: <u>https://www.soa.org/Files/Research/Exp-Study/research-2013-group-term-life-report.pdf</u>.

The 2013 Study includes measures of Death, Accidental Death and Dismemberment ("AD&D") and Disability Waiver of Premium ("Waiver" or "Disability") incidence for Group Term Life Insurance policies in force anytime during the study period of 2007 to 2009. The study results include Basic and Supplemental Group Life coverage for Individually-Billed and Self-Administered Group Life. The focus of this report is on Waiver incidence rates and development of waiver cost relative to expected mortality (non-waiver) claims.

#### Introduction

This report studies Group Life waiver incidence rates, which are also referred to in the 2013 Group Life Mortality Study and pivot tables as Disability Rates. As noted in the 2013 Study write up, the 2005 Group Term Life Waiver Reserve Table (the "2005 Group Term Life Waiver Study") is available on the SOA's website (www.soa.org) to assess the cost of a Waiver claim given a claim has occurred. The Disability incidence rates presented in the 2013 Study can be combined with the waiver reserve from the 2005 Study, or a carrier's own reserve factors, to estimate the total cost of waiver in relation to group life benefits.

Due to the limited number of carriers and potential concerns associated with data reliability with Self-Administered Group Life submissions, this report focuses on Individually-Billed results only.

The 2013 Study included a filter on the type of Waiver Provision. Data were coded using the following segmentation:

- 1. Standard, meaning disabled prior to age 60/65
- 2. Disableds payable as active employees or one-year extended death benefit
- 3. Disableds not covered
- 4. Other, i.e., unknown or more than one definition applies

For the purposes of the analysis shown in this report, results are shown for Standard disability only (#1 above). To assume a standard waiver provision of qualifying age 60, results are shown for fiveyear age bands of 22 through 57 (age 20 through 59). This removes any potential bias in results due to the mix of business with qualifying ages other than 60. In addition, to avoid volatility of results and potential bias due to medical underwriting, groups 2-9 lives and <2 or unknown lives were excluded from this analysis.

Expected values were developed based on the 2013 Individual Basic coverage for groups with 10+ lives and Standard waiver. The expected values used in the segmentation analysis are shown by age and gender in Table 1. Note that these expected values differ from the expected disability rates in the 2013 pivot tables, which are based on all Individual Basic exposure, including all size groups and waiver provisions.

As highlighted in the January 2014 SOA Group Life Insurance Experience Committee report, a number of caveats must be considered when reviewing the analysis shown in this report, particularly for pricing or reserving purposes:

- The results shown represent raw data and have not been smoothed or adjusted in any way.
- Despite the Committee's best efforts to validate data and the cooperation of the contributing companies to investigate and correct their submissions, it is likely that some data errors were not discovered and are, therefore, included in the results.
- Experience will vary from company to company and from year to year for a number of factors that we were unable to study. The impact of the mix of companies' exposure is likely to be more significant on waiver results than mortality due to company claim administration practices, in particular when reviewing results segmented by waiver processing with LTD.
- When reviewing segmented results, the smaller the exposure, the less credible the results for that segment.

#### Results

The following table reflects the waiver incidence rates by age and gender in both the 2013 and 2006 studies for comparison purposes. The 2013 waiver incidence rates shown below are 228% of rates in the 2006 study, with a 157% increase for females and a 105% increase for males on a volume weighted basis. Female 2013 waiver incidence rates by volume are 43% higher than males based on the mix of exposure in the study, and are greater than male rates at all age bands. Rates by claim numbers are 22% higher than males, and similarly greater at all age bands. Note that a direct comparison may not be possible due to the difference in carriers reflected in both studies, driven by differences in carriers' mix of business and waiver claim processes.

#### Waiver Incidence by Age and Gender

#### Table 1: Waiver Incidence Rates by Age and Gender

|      |          |                  |                 | Study                     | 2006 Study  |       |           |           |                 |       |            |       |           |
|------|----------|------------------|-----------------|---------------------------|-------------|-------|-----------|-----------|-----------------|-------|------------|-------|-----------|
|      | Central  | Central Exposure |                 | Exposure Claims Incidence |             | ence  | E         | xposure   | Claims          |       | Incidence  |       |           |
| Sex  | Age      | Lives            | \$ Amount       | Count                     | \$ Amount   | Count | \$ Amount | Lives     | \$ Amount       | Count | \$ Amount  | Count | \$ Amount |
| F    | 22       | 249,633          | 8,648,343,289   | 20                        | 1,111,877   | 0.129 | 0.080     | 93,670    | 2,364,245,465   | 3     | 79,000     | 0.032 | 0.033     |
|      | 27       | 498,241          | 21,458,435,930  | 109                       | 5,597,264   | 0.261 | 0.219     | 199,522   | 6,205,824,350   | 14    | 436,000    | 0.070 | 0.070     |
|      | 32       | 472,274          | 23,188,849,323  | 175                       | 9,534,619   | 0.411 | 0.371     | 219,531   | 7,608,796,319   | 32    | 1,346,590  | 0.146 | 0.177     |
|      | 37       | 486,749          | 24,898,692,543  | 259                       | 14,393,201  | 0.578 | 0.532     | 227,741   | 8,058,614,146   | 51    | 2,345,000  | 0.224 | 0.291     |
|      | 42       | 500,690          | 25,412,877,766  | 343                       | 19,208,283  | 0.756 | 0.685     | 227,678   | 7,953,303,474   | 83    | 3,486,356  | 0.365 | 0.438     |
|      | 47       | 539,372          | 27,121,596,219  | 508                       | 29,900,774  | 1.102 | 0.942     | 204,315   | 7,025,140,031   | 96    | 3,466,166  | 0.470 | 0.493     |
|      | 52       | 489,845          | 24,214,406,076  | 605                       | 33,939,439  | 1.402 | 1.235     | 171,012   | 5,735,668,131   | 103   | 4,454,500  | 0.602 | 0.777     |
|      | 57       | 380,347          | 18,424,467,560  | 645                       | 37,356,571  | 2.028 | 1.696     | 113,242   | 3,576,029,136   | 112   | 4,439,500  | 0.989 | 1.241     |
| F To | tal      | 3,617,152        | 173,367,668,705 | 2,664                     | 151,042,029 | 0.871 | 0.736     | 1,456,711 | 48,527,621,052  | 494   | 20,053,112 | 0.339 | 0.413     |
| М    | 22       | 267,213          | 9,001,289,835   | 20                        | 981,939     | 0.109 | 0.075     | 111,368   | 2,789,760,400   | 4     | 108,000    | 0.036 | 0.039     |
|      | 27       | 541,275          | 24,181,853,108  | 79                        | 3,792,489   | 0.157 | 0.146     | 247,170   | 8,208,939,450   | 16    | 691,000    | 0.065 | 0.084     |
|      | 32       | 589,837          | 31,986,412,175  | 106                       | 6,268,366   | 0.196 | 0.180     | 308,003   | 11,855,004,072  | 16    | 856,750    | 0.052 | 0.072     |
|      | 37       | 647,548          | 39,133,184,872  | 196                       | 11,732,812  | 0.300 | 0.303     | 330,347   | 13,997,753,501  | 49    | 2,430,500  | 0.148 | 0.174     |
|      | 42       | 653,766          | 40,552,432,251  | 287                       | 15,359,160  | 0.379 | 0.439     | 323,116   | 14,303,147,747  | 81    | 4,430,400  | 0.251 | 0.310     |
|      | 47       | 666,834          | 41,624,718,015  | 469                       | 27,217,729  | 0.654 | 0.703     | 271,417   | 12,318,430,506  | 112   | 5,154,177  | 0.413 | 0.418     |
|      | 52       | 582,550          | 36,297,409,623  | 705                       | 39,738,492  | 1.095 | 1.210     | 215,234   | 10,058,270,800  | 146   | 5,880,786  | 0.678 | 0.585     |
|      | 57       | 451,503          | 28,210,086,781  | 783                       | 47,697,133  | 1.691 | 1.734     | 146,986   | 6,769,609,590   | 155   | 8,227,041  | 1.055 | 1.215     |
| ΜT   | otal     | 4,400,527        | 250,987,386,660 | 2,645                     | 152,788,121 | 0.609 | 0.601     | 1,953,640 | 80,300,916,064  | 579   | 27,778,654 | 0.296 | 0.346     |
| Gran | nd Total | 8,017,678        | 424,355,055,365 | 5,309                     | 303,830,149 | 0.716 | 0.662     | 3,410,351 | 128,828,537,117 | 1,073 | 47,831,766 | 0.315 | 0.371     |

#### Waiver Reporting Linked to LTD

Group life carriers who offer long term disability ("LTD") products to common customers have historically demonstrated that linking the reporting of waiver claims to LTD claims results in higher rates of waiver incidence. There are a number of factors potentially driving this result, including shortening the elimination period to align with LTD (3/6 months versus 9 months), using a less restrictive two-year own occupation definition of disability versus any occupation and differences in waiver claim monitoring practices to align with LTD claims.

The 2013 study included segmentation of results based on whether waivers are reported with LTD claims, with indicators of "Yes," "No" or "Unknown." In the following table, "No" and "Unknown" are combined under "Waiver Reporting NOT Linked to LTD."

In providing data for the 2013 study, some carriers coded all of their business with a "Yes" indicator for reporting waivers with LTD, regardless of whether individual groups within their block had both waiver and LTD coverage. Therefore, the findings shown below are directional only and do not accurately reflect the impact of reporting waivers with LTD on waiver incidence. (*Note that for future studies, this distinction has been clarified and we expect more reliable results when data is more accurately segmented at the group rather than carrier level.*)

The 2013 study indicates that there does appear to be a very strong correlation of waiver incidence with combined LTD/waiver reporting. Waiver incidence rates with waiver reporting linked to LTD are more than double those without linked reporting. This provides further evidence to support anecdotal evidence of the correlation of waiver reporting practices and incidence rates. Carriers are encouraged to study their own block to determine the magnitude of this correlation and how it impacts their own experience.

|      |          | Waiver Reporting Linked to LTD |                 |                           |             |       |           |           | Waiver Repo     | rting N | OT Linked to | LTD   |           |
|------|----------|--------------------------------|-----------------|---------------------------|-------------|-------|-----------|-----------|-----------------|---------|--------------|-------|-----------|
|      | Central  | Exposure                       |                 | Exposure Claims Incidence |             | E     | xposure   | C         | laims           | Incie   | lence        |       |           |
| Sex  | Age      | Lives                          | \$ Amount       | Count                     | \$ Amount   | Count | \$ Amount | Lives     | \$ Amount       | Count   | \$ Amount    | Count | \$ Amount |
| F    | 22       | 146,042                        | 5,689,886,501   | 19                        | 1,042,898   | 0.183 | 0.130     | 103,591   | 2,958,456,788   | 1       | 68,980       | 0.023 | 0.010     |
|      | 27       | 298,002                        | 14,491,220,273  | 94                        | 4,937,285   | 0.341 | 0.315     | 200,240   | 6,967,215,657   | 15      | 659,980      | 0.095 | 0.075     |
|      | 32       | 282,155                        | 15,785,257,120  | 162                       | 8,892,631   | 0.563 | 0.574     | 190,119   | 7,403,592,203   | 13      | 641,988      | 0.087 | 0.068     |
|      | 37       | 285,612                        | 16,813,621,032  | 238                       | 13,461,242  | 0.801 | 0.833     | 201,137   | 8,085,071,511   | 21      | 931,959      | 0.115 | 0.104     |
|      | 42       | 289,898                        | 16,985,198,149  | 304                       | 17,683,365  | 1.041 | 1.049     | 210,791   | 8,427,679,617   | 39      | 1,524,918    | 0.181 | 0.185     |
|      | 47       | 307,857                        | 17,864,855,043  | 436                       | 25,390,897  | 1.421 | 1.416     | 231,515   | 9,256,741,176   | 72      | 4,509,877    | 0.487 | 0.311     |
|      | 52       | 275,365                        | 15,696,879,235  | 533                       | 30,646,243  | 1.952 | 1.936     | 214,481   | 8,517,526,841   | 72      | 3,293,196    | 0.387 | 0.336     |
|      | 57       | 212,091                        | 11,884,838,769  | 552                       | 32,996,816  | 2.776 | 2.603     | 168,256   | 6,539,628,790   | 93      | 4,359,755    | 0.667 | 0.553     |
| F To | tal      | 2,097,022                      | 115,211,756,123 | 2,338                     | 135,051,376 | 1.172 | 1.115     | 1,520,130 | 58,155,912,583  | 326     | 15,990,652   | 0.275 | 0.214     |
| М    | 22       | 140,887                        | 5,587,484,999   | 17                        | 864,939     | 0.155 | 0.121     | 126,326   | 3,413,804,836   | 3       | 117,000      | 0.034 | 0.024     |
|      | 27       | 303,273                        | 15,991,219,335  | 69                        | 3,479,489   | 0.218 | 0.228     | 238,002   | 8,190,633,773   | 10      | 313,000      | 0.038 | 0.042     |
|      | 32       | 334,157                        | 21,638,971,633  | 96                        | 5,739,366   | 0.265 | 0.287     | 255,680   | 10,347,440,542  | 10      | 529,000      | 0.051 | 0.039     |
|      | 37       | 365,093                        | 26,442,239,045  | 170                       | 10,349,832  | 0.391 | 0.466     | 282,455   | 12,690,945,827  | 26      | 1,382,980    | 0.109 | 0.092     |
|      | 42       | 361,813                        | 27,100,867,604  | 242                       | 13,559,181  | 0.500 | 0.669     | 291,953   | 13,451,564,646  | 45      | 1,799,980    | 0.134 | 0.154     |
|      | 47       | 361,151                        | 27,356,534,815  | 388                       | 22,673,706  | 0.829 | 1.074     | 305,683   | 14,268,183,200  | 81      | 4,544,023    | 0.318 | 0.265     |
|      | 52       | 310,438                        | 23,516,442,516  | 587                       | 34,231,135  | 1.456 | 1.891     | 272,112   | 12,780,967,108  | 118     | 5,507,357    | 0.431 | 0.434     |
|      | 57       | 236,512                        | 18,001,325,988  | 609                       | 37,862,336  | 2.103 | 2.575     | 214,991   | 10,208,760,793  | 174     | 9,834,797    | 0.963 | 0.809     |
| ΜТ   | otal     | 2,413,324                      | 165,635,085,935 | 2,178                     | 128,759,984 | 0.777 | 0.902     | 1,987,202 | 85,352,300,725  | 467     | 24,028,137   | 0.282 | 0.235     |
| Gran | nd Total | 4,510,346                      | 280,846,842,058 | 4,516                     | 263,811,360 | 0.939 | 1.001     | 3,507,332 | 143,508,213,307 | 793     | 40,018,789   | 0.279 | 0.226     |

#### Table 2: Waiver Incidence Rates by Reporting Type

#### Waiver Incidence by Industry

The table below shows the actual to expected waiver incidence rates by industry, with the expected rates based on the incidence rates by age and gender as shown in Table 1. Industry segments by 2-digit SIC code are detailed in Appendix A.

To compare the relative waiver cost by industry, the relative A/E mortality rate for the same population is shown. In general, most industry segments align their A/E waiver incidence rate with their A/E mortality rate, indicating a relatively flat cost of waiver as a percentage of mortality cost. Exceptions include Agriculture, Forestry and Fishing, with an 86.3% A/E waiver incidence rate and a 151.6% A/E mortality rate, and Health Services with a 125.9% A/E waiver incidence rate and a 91.2% A/E mortality rate.

| Table 3: V | Vaiver | Incidence | Rates | by | Industry |
|------------|--------|-----------|-------|----|----------|
|------------|--------|-----------|-------|----|----------|

|   |           |                 |        | Waiver      |        |        | A/E    | A/E    | A/E    |
|---|-----------|-----------------|--------|-------------|--------|--------|--------|--------|--------|
|   | Lives     |                 | Waiver | Claim       | Waiver | Waiver | Waiver | Waiver | Death  |
| Industry                                  | Exposure  | \$ Exposure     | Claims | Amount      | \$ Inc | # Inc  | Inc \$ | Inc #  | Inc \$ |
| A. Agriculture, Forestry, and Fishing     | 52,267    | 1,902,473,594   | 21     | 1,120,755   | 0.589  | 0.402  | 86.3%  | 65.7%  | 151.6% |
| B. Mining                                 | 40,591    | 2,703,653,691   | 34     | 2,590,632   | 0.958  | 0.838  | 130.5% | 130.7% | 147.7% |
| C. Construction                           | 345,864   | 11,449,911,207  | 229    | 10,142,262  | 0.886  | 0.662  | 140.8% | 111.6% | 129.5% |
| D. Manufacturing- Food                    | 69,004    | 2,881,829,411   | 49     | 3,085,451   | 1.071  | 0.710  | 144.3% | 107.4% | 115.1% |
| E. Manufacturing- Clothes, Textile        | 33,546    | 1,019,892,489   | 16     | 930,918     | 0.913  | 0.477  | 118.7% | 65.9%  | 166.6% |
| F. Manufacturing- Wood Products           | 103,980   | 3,507,735,783   | 72     | 2,933,112   | 0.836  | 0.692  | 117.5% | 104.8% | 181.2% |
| G. Manufacturing- Paper, Drugs, Chemicals | 277,749   | 12,956,233,880  | 197    | 9,205,224   | 0.710  | 0.709  | 97.9%  | 104.9% | 111.7% |
| H. Manufacturing- heavy, steel etc.       | 553,993   | 23,166,402,576  | 445    | 21,828,421  | 0.942  | 0.803  | 131.6% | 116.4% | 125.7% |
| I. Manufacturing- Precision Equipment     | 152,580   | 9,036,554,445   | 115    | 6,581,744   | 0.728  | 0.754  | 100.1% | 107.5% | 95.5%  |
| J. Transport, Communication, Utilities    | 300,269   | 14,455,190,906  | 188    | 9,909,611   | 0.686  | 0.626  | 101.0% | 96.4%  | 125.8% |
| K. Wholesale Trade Durable Goods          | 471,379   | 19,921,145,441  | 336    | 17,590,047  | 0.883  | 0.713  | 129.2% | 109.8% | 99.7%  |
| L. Wholesale Trade Non-Durable Goods      | 228,002   | 9,066,700,896   | 136    | 7,348,832   | 0.811  | 0.596  | 113.5% | 90.8%  | 122.6% |
| M. Retail- Trade                          | 411,660   | 11,385,569,006  | 193    | 8,214,978   | 0.722  | 0.469  | 110.3% | 75.9%  | 142.1% |
| N. Banks & Securities                     | 347,991   | 30,198,963,144  | 241    | 17,741,826  | 0.587  | 0.693  | 78.9%  | 105.5% | 78.0%  |
| O. Insurance, Other Finance               | 432,026   | 30,259,808,849  | 247    | 17,117,120  | 0.566  | 0.572  | 78.1%  | 84.2%  | 80.1%  |
| P. Service- Personal                      | 86,162    | 2,673,561,883   | 32     | 1,254,398   | 0.469  | 0.371  | 69.5%  | 60.7%  | 148.9% |
| Q. Computers                              | 662,892   | 47,290,535,551  | 337    | 20,824,884  | 0.440  | 0.508  | 76.7%  | 92.8%  | 88.0%  |
| R. Services- Other                        | 163,841   | 7,123,382,735   | 74     | 3,701,428   | 0.520  | 0.452  | 80.4%  | 76.3%  | 95.6%  |
| S. Health Services                        | 831,992   | 37,001,230,774  | 689    | 39,341,613  | 1.063  | 0.828  | 125.9% | 111.5% | 91.2%  |
| T. Legal Services                         | 280,049   | 24,765,546,811  | 225    | 18,164,263  | 0.733  | 0.803  | 93.6%  | 113.6% | 70.9%  |
| U. Educational Services                   | 456,032   | 21,145,131,642  | 234    | 13,142,240  | 0.622  | 0.513  | 73.3%  | 68.0%  | 76.8%  |
| V. Services - Public                      | 552,626   | 27,014,562,543  | 390    | 21,684,037  | 0.803  | 0.706  | 100.0% | 100.3% | 114.4% |
| W. Services - Technical                   | 817,816   | 59,835,503,513  | 502    | 33,049,704  | 0.552  | 0.614  | 82.3%  | 100.7% | 88.7%  |
| X. Public Administration                  | 318,013   | 12,369,112,598  | 266    | 14,660,651  | 1.185  | 0.836  | 168.9% | 119.4% | 134.4% |
| Z. Unknown                                | 27,354    | 1,224,421,998   | 41     | 1,666,000   | 1.361  | 1.499  | 176.0% | 205.7% | 103.4% |
| Grand Total                               | 8,017,678 | 424,355,055,365 | 5,309  | 303,830,149 | 0.716  | 0.662  | 100.0% | 100.0% | 100.0% |

#### Waiver Incidence by Region

The table below shows the actual to expected waiver incidence rates by geographical region, with the expected rates based on the incidence rates by age and gender as shown in Table 1. Geographical regions are illustrated on the map in Appendix B.

To compare the relative waiver cost by region, the relative A/E mortality rate for the same population is shown. The two regions with the greater variation in A/E waiver and mortality rates are New England, with a 111.2% A/E waiver incidence rate and a 72.7% A/E mortality rate, and East South Central, with a 159% A/E waiver incidence rate and a 112.2% A/E mortality rate.

|                                   |           |                 |        | Waiver      |        |        | A/E    | A/E    | A/E    |
|-----------------------------------|-----------|-----------------|--------|-------------|--------|--------|--------|--------|--------|
|                                   | Lives     |                 | Waiver | Claim       | Waiver | Waiver | Waiver | Waiver | Death  |
| Industry                          | Exposure  | \$ Exposure     | Claims | Amount      | \$ Inc | # Inc  | Inc \$ | Inc #  | Inc \$ |
| A. Division 1: New England        | 698,445   | 47,377,349,015  | 593    | 37,631,337  | 0.794  | 0.849  | 111.2% | 125.9% | 72.7%  |
| B. Division 2: Middle Atlantic    | 1,178,248 | 71,382,231,024  | 751    | 44,680,124  | 0.626  | 0.637  | 87.9%  | 95.0%  | 108.7% |
| C. Division 3: East North Central | 1,339,529 | 60,354,361,304  | 863    | 42,840,832  | 0.710  | 0.644  | 96.1%  | 94.6%  | 104.0% |
| D. Division 4: West North Central | 655,340   | 27,361,416,069  | 400    | 19,171,631  | 0.701  | 0.610  | 95.5%  | 90.6%  | 92.5%  |
| E. Division 5: South Atlantic     | 1,369,285 | 76,734,973,463  | 1,021  | 57,698,981  | 0.752  | 0.746  | 105.8% | 113.7% | 107.8% |
| F. Division 6: East South Central | 435,973   | 19,705,188,136  | 400    | 23,366,710  | 1.186  | 0.917  | 159.0% | 136.2% | 112.2% |
| G. Division 7: West South Central | 741,304   | 34,409,039,959  | 401    | 23,396,836  | 0.680  | 0.541  | 95.6%  | 84.2%  | 105.4% |
| H. Division 8: Mountain           | 412,393   | 18,461,882,087  | 230    | 13,297,906  | 0.720  | 0.558  | 100.3% | 85.8%  | 109.9% |
| I. Division 9: Pacific            | 1,160,441 | 66,881,439,661  | 628    | 40,063,978  | 0.599  | 0.541  | 86.2%  | 84.8%  | 90.2%  |
| J. Division 10: Canada            | 6,627     | 394,696,196     | 4      | 466,939     | 1.183  | 0.604  | 179.3% | 95.1%  | 120.8% |
| K. Unknown                        | 20,095    | 1,292,478,451   | 18     | 1,214,877   | 0.940  | 0.896  | 144.3% | 138.5% | 160.6% |
| Grand Total                       | 8,017,678 | 424,355,055,365 | 5,309  | 303,830,149 | 0.716  | 0.662  | 100.0% | 100.0% | 100.0% |

#### Table 4: Waiver Incidence Rates by Region

#### Waiver Incidence by Group Size

Waiver and mortality A/E incidence rates are shown below for each size segment reflected in the 2013 study. There did not appear to be significant variation in the A/E waiver and mortality rates, with the slight differences in the 250-499 and 500-999 segments. Due to the varying mixes of business and carriers within each lives segment and the limited credibility of the small amount of data on larger groups (1000+ lives), it is unlikely that any conclusions can be drawn regarding the impact of group size on the cost of waiver.

#### Table 5: Waiver Incidence Rates by Group Size

|              |           |                 |        | Waiver      |        |        | A/E    | A/E    | A/E    |
|--------------|-----------|-----------------|--------|-------------|--------|--------|--------|--------|--------|
|              | Lives     |                 | Waiver | Claim       | Waiver | Waiver | Waiver | Waiver | Waiver |
| Group Size   | Exposure  | \$ Exposure     | Claims | Amount      | \$ Inc | # Inc  | Inc \$ | Inc #  | Inc \$ |
| C. 10-24     | 931,709   | 45,740,387,638  | 623    | 33,672,574  | 0.736  | 0.669  | 101.4% | 97.9%  | 96.0%  |
| D. 25-49     | 1,335,349 | 68,462,207,017  | 894    | 49,367,508  | 0.721  | 0.669  | 100.6% | 100.2% | 100.9% |
| E. 50-99     | 1,806,718 | 94,452,219,236  | 1,250  | 69,498,185  | 0.736  | 0.692  | 103.1% | 105.1% | 105.4% |
| F. 100-249   | 2,157,763 | 117,448,017,678 | 1,399  | 79,215,065  | 0.674  | 0.648  | 94.5%  | 98.9%  | 99.1%  |
| G. 250-499   | 1,089,327 | 60,685,840,755  | 739    | 46,924,375  | 0.773  | 0.678  | 107.8% | 102.9% | 94.3%  |
| Н. 500-999   | 487,330   | 27,664,783,204  | 281    | 17,561,852  | 0.635  | 0.577  | 89.3%  | 88.3%  | 105.2% |
| I. 1000-4999 | 183,518   | 8,799,460,373   | 112    | 6,831,814   | 0.776  | 0.610  | 110.5% | 93.5%  | 90.4%  |
| J. 5000+     | 25,964    | 1,102,139,464   | 11     | 758,775     | 0.688  | 0.424  | 78.4%  | 56.9%  | 102.4% |
| Grand Total  | 8,017,678 | 424,355,055,365 | 5,309  | 303,830,149 | 0.716  | 0.662  | 100.0% | 100.0% | 100.0% |

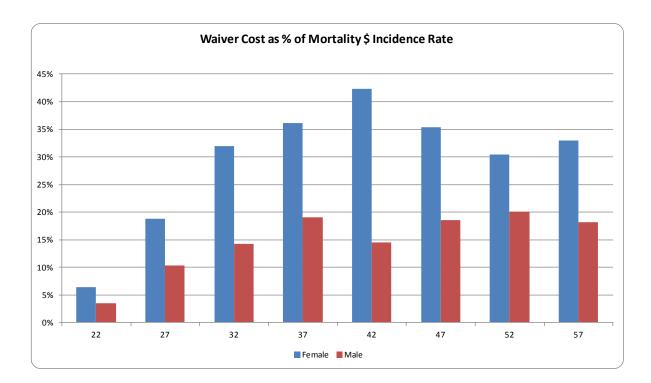
#### **Total Waiver Cost**

To estimate the cost of waiver, 2013 incidence rates were combined with the waiver reserve factors developed based on the 2005 Group Life waiver study using a 4% interest rate. The total cost of waiver is 16% of expected mortality cost based on Basic Individually-Billed exposure for lives aged 20-69 in 10+ life groups with standard waiver.

Carriers are encouraged to apply their own reserve assumptions to waiver incidence rates to determine the impact on their own blocks. In addition, when determining waiver pricing loads, coverage of disabled lives under non-waiver plans needs to be taken into consideration to account for potential reductions in the magnitude of waiver loads.

|      | Central  |                 |               | Waiver Reserve | Waiver Cost | Death \$ | Waiver \$ Inc as % of | Waiver Cost as % of |
|------|----------|-----------------|---------------|----------------|-------------|----------|-----------------------|---------------------|
| Sex  | Age      | \$ Exposure     | Waiver \$ Inc | Factor*        | per \$000   | Inc      | Death \$ Inc          | Mortality Rate      |
| F    | 22       | 8,648,343,289   | 0.129         | 10%            | 0.013       | 0.200    | 64%                   | 6%                  |
|      | 27       | 21,458,435,930  | 0.261         | 14%            | 0.037       | 0.194    | 134%                  | 19%                 |
|      | 32       | 23,188,849,323  | 0.411         | 16%            | 0.066       | 0.206    | 200%                  | 32%                 |
|      | 37       | 24,898,692,543  | 0.578         | 19%            | 0.110       | 0.304    | 190%                  | 36%                 |
|      | 42       | 25,412,877,766  | 0.756         | 22%            | 0.166       | 0.393    | 192%                  | 42%                 |
|      | 47       | 27,121,596,219  | 1.102         | 26%            | 0.287       | 0.812    | 136%                  | 35%                 |
|      | 52       | 24,214,406,076  | 1.402         | 26%            | 0.364       | 1.202    | 117%                  | 30%                 |
|      | 57       | 18,424,467,560  | 2.028         | 25%            | 0.507       | 1.541    | 132%                  | 33%                 |
|      | 62       | 10,205,770,685  | 0.000         | 0%             | 0.000       | 2.648    | 0%                    | 0%                  |
|      | 67       | 2,389,423,479   | 0.000         | 0%             | 0.000       | 4.227    | 0%                    | 0%                  |
| F To | tal      | 185,962,862,869 | 0.812         |                | 0.190       | 0.779    | 104%                  | 24%                 |
| Μ    | 22       | 9,001,289,835   | 0.109         | 20%            | 0.022       | 0.631    | 17%                   | 3%                  |
|      | 27       | 24,181,853,108  | 0.157         | 24%            | 0.038       | 0.365    | 43%                   | 10%                 |
|      | 32       | 31,986,412,175  | 0.196         | 27%            | 0.053       | 0.371    | 53%                   | 14%                 |
|      | 37       | 39,133,184,872  | 0.300         | 29%            | 0.087       | 0.458    | 65%                   | 19%                 |
|      | 42       | 40,552,432,251  | 0.379         | 31%            | 0.117       | 0.812    | 47%                   | 14%                 |
|      | 47       | 41,624,718,015  | 0.654         | 33%            | 0.216       | 1.164    | 56%                   | 19%                 |
|      | 52       | 36,297,409,623  | 1.095         | 32%            | 0.350       | 1.746    | 63%                   | 20%                 |
|      | 57       | 28,210,086,781  | 1.691         | 29%            | 0.490       | 2.712    | 62%                   | 18%                 |
|      | 62       | 17,333,465,172  | 0.000         | 0%             | 0.000       | 4.249    | 0%                    | 0%                  |
|      | 67       | 4,834,188,136   | 0.000         | 0%             | 0.000       | 6.768    | 0%                    | 0%                  |
| ΜТ   | otal     | 273,155,039,969 | 0.559         |                | 0.170       | 1.362    | 41%                   | 13%                 |
| Gran | nd Total | 459,117,902,838 | 0.662         |                | 0.178       | 1.126    | 59%                   | 16%                 |

The cost of waiver varies substantially by age and gender. While females experience higher waiver incidence rates, this is partially offset by higher recoveries and lower mortality in waiver reserve assumptions. In addition, female mortality rates are lower, resulting a higher waiver load as a percentage of mortality



# APPENDIX A

| 2-digit SIC | Industry Grouping                         | Industry Category |
|-------------|---|-------------------|
| 01-09       | A. Agriculture, Forestry, and Fishing     | Blue              |
| 10-14       | B. Mining                                 | Blue              |
| 15-17       | C. Construction                           | Blue              |
| 20-21       | D. Manufacturing- Food                    | Blue              |
| 22-23       | E. Manufacturing- Clothes, Textile        | Blue              |
| 24-26       | F. Manufacturing- Wood Products           | Blue              |
| 27-32       | G. Manufacturing- Paper, Drugs, Chemicals | Grey              |
| 33-37       | H. Manufacturing- heavy, steel etc.       | Blue              |
| 38-39       | I. Manufacturing- Precision Equipment     | Grey              |
| 40-49       | J. Transport, Communication, Utilities    | Blue              |
| 50          | K. Wholesale Trade Durable Goods          | Grey              |
| 51          | L. Wholesale Trade Non-Durable Goods      | Grey              |
| 52-59       | M. Retail- Trade                          | Grey              |
| 60-62       | N. Banks & Securities                     | White             |

# Industry / Industry Category by 2-digit SIC Code

## **APPENDIX B**

### **U.S. Census Bureau Geographical Regions**



# **APPENDIX C**

### **Contributing Companies**

The Committee wishes to thank the following companies that contributed data to the 2013 Study:

- Assurant, Inc. Group
- CIGNA Group
- Guardian Life Group
- Hartford Life Group
- Health Care Service Corporation Group (BC/BS of IL)
- ING
- Liberty Life Assurance Company of Boston
- Lincoln Financial Group
- Metropolitan Life and Affiliated Companies Group
- Mutual of Omaha Group
- OneAmerica Group
- Prudential of America Group
- Reliance Standard Life Group
- Standard Insurance Group
- Symetra Life Group
- UnitedHealth Group
- Unum

## **APPENDIX D**

## Group Life Insurance Experience Committee Prior Study Write-Up Subcommittee

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