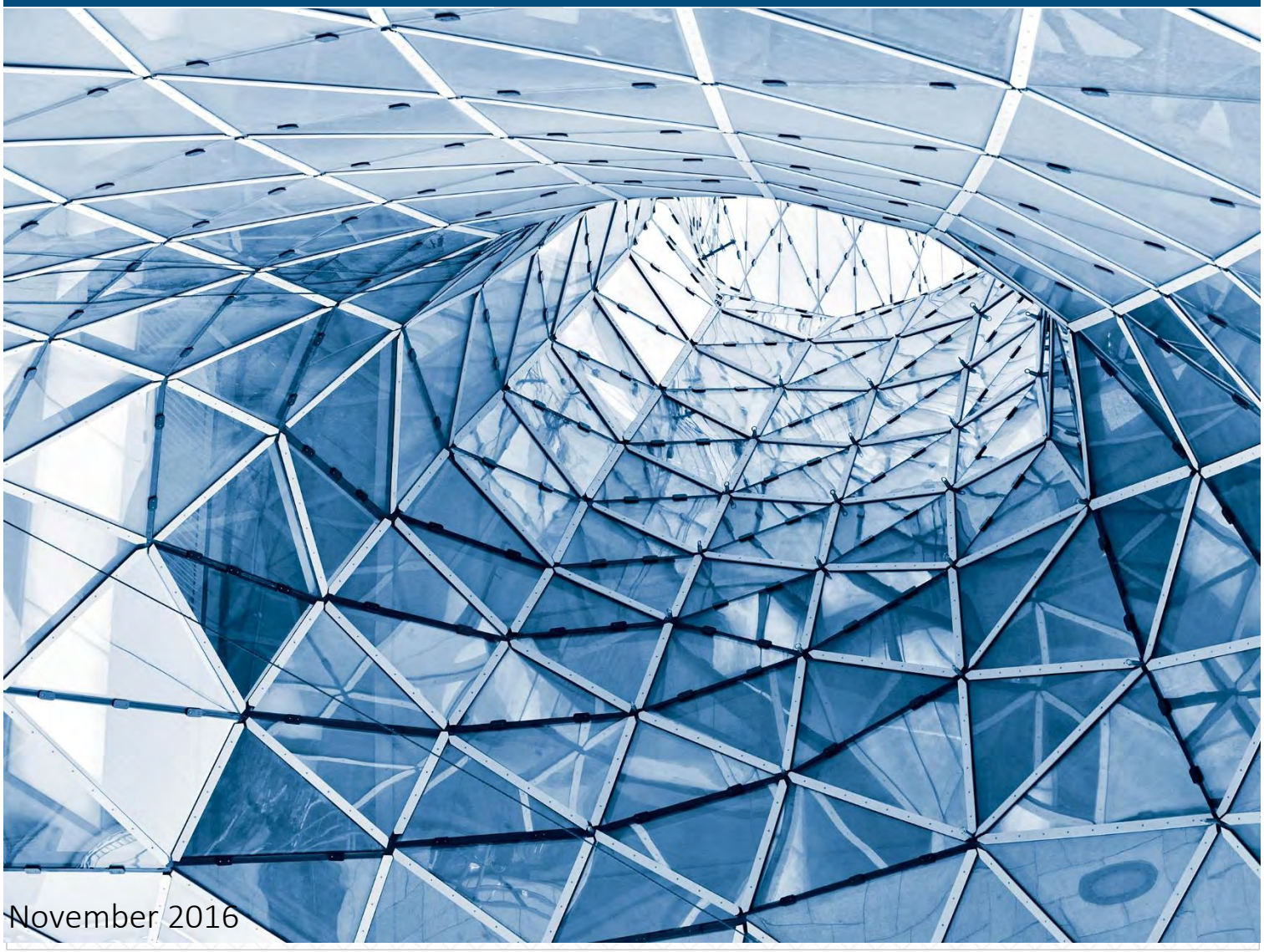
SOCIETY OF ACTUARIES

2016 Group Long Term Disability Experience Study Preliminary Report



November 2016

2016 Group Long Term Disability Experience Study Preliminary Report

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Society of Actuaries

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Acknowledgements

The Society of Actuaries (SOA) would like to thank the members of the Group Long Term Disability Experience Committee (GLTDEC) for its work on this study.

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Overview

This document accompanies the pivot table results that were distributed in June of 2016 to the carriers that participated in the 2016 Group Long Term Disability Claim Experience Study. The report is not intended to provide a comprehensive analysis of the study, but rather to guide the reader in their own use and review of the pivot table results.

Study Details

The study covers the experience period from January 1, 2004 to December 31, 2012, using claim data that was collected as of December 31, 2013. There were 25 participating companies as listed below:

Aetna
AIG
American Fidelity
Anthem
Assurant
Boston Mutual
Cigna
Dearborn National
Disability RMS
Guardian
MetLife
Mutual of Omaha
Northwestern Mutual
OneAmerica
Hartford Group Reinsurance
Liberty Mutual
Lincoln Financial
The Hartford
Principal Financial Group
Prudential
Reliance Standard
The Standard
Sun Life Financial
United Healthcare
Unum

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Study Definitions

The study explicitly uses the same definitions as used in the 2008 study that was the basis for the GLTD2008 experience table. This experience table was used to set the termination expectations that are presented in the pivot table results. In addition to the core variables that were part of the 2008 study, we also requested several additional variables that were provided for the segmentation of results.

Data Submission

Companies were requested to submit data on all fully insured group long term disability ("LTD") claims that were open at any time during the study period, and that also had at least one benefit payment.

Certain claims were excluded from the study, including full or partial administrative services only ("ASO") claims, claims from reserve buy-outs, international claims, and claims with extended elimination periods (greater than 15 months). Zero-day elimination periods ("EP") claims are excluded from all analyses. In order to ensure confidentiality of individual company data, an external vendor, the Medical Information Bureau (MIB), was utilized to collect and sort the data.

In the data request, companies were asked to assign claim terminations to one of five categories:

1. Recovery
2. Death
3. Contractual maximum benefit period being reached ("Max-Out")
4. Expiration due to internal benefit period limit ("Limit")
5. Settlement

The term recovery refers to any claim termination that is not otherwise identified by the other four categories and thus includes many terminations that are not due strictly to a recovery from the disability. In particular terminations due to the change in definition from own-occupation to any-occupation are counted as recoveries.

The LTD experience committee worked with MIB to ensure the accuracy and validity of the submitted data. A self-audit guide was provided to the participating companies that identified a number of specific data integrity checks that should be performed before submitting the data. Once the data was submitted, MIB created their own data validation reports, which were reviewed by the experience committee, which then decided whether to work around the issues, or request clarification or resubmission of the data from specific carriers.

The Committee then reviewed a contributor-level variance report to identify potential outliers. The data was presented in a manner which precluded individual company identification. Any potential issues identified by the Committee were addressed through MIB back to the contributing company.

The primary data manipulation performed by MIB that materially effects the results is that claims that terminated within 45 days of the submitted maximum benefit duration date were reclassified

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as Max-outs. Some of the new segment variables were missing or had invalid values. There was no attempt to fix these values and so they are passed directly to the pivot tables as "Unknown/Invalid".

Exposure Definition

The definitions of exposure and duration of claims used in this report are consistent with the assumptions used to develop the GLTD2008 experience table. While the experience report provided with this study can be referred to for additional details, the following is a brief summary of how exposures were defined:

Throughout the study, the elimination period is based on the benefit commencement date minus the date of disability. This means that an effective elimination period was used instead of the contractual elimination period. For example, they can differ due to a temporary return to work during the elimination period. The elimination period is converted to months by dividing by 30 and rounding to the nearest integer.

The exposure ends with the earlier of the claim termination date or the end of the study period. If a claim is open as of the study valuation date (December 31, 2013), or has a termination date after the study-end date, (December 31, 2012), then it is exposed to the study end-date. All claims are given a full month of exposure for each month in which they are at least partially exposed, except for the following specific exceptions:

1. Claims that are receiving benefits when the study begins may get a fractional month exposure in the first month of the study.
2. Claims that are receiving benefits when the study ends may get a fractional month exposure in the last month of the study. Claims that last until the end of the contractual benefit period may get a fractional month exposure in the last month of benefits.
3. Fractional exposures are determined by dividing the number of days exposed by 30 and capping at 100%.

We note that these exposure definitions are appropriate for a "pricing" or "experience" basis, in which we estimate the total months of benefit paid for each claim incurred, as opposed to a "valuation" basis, which applies only to reported or "known" claims. The primary difference between an experience table and a valuation table is that, for a valuation table, claims would not be exposed to termination before they have been reported. In addition, claims that close within the study period, but were not known to be closed as of the end of the study period, would be counted as open when determining an appropriate valuation table.

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Carrier Dampening

Similar to the 2008 study, data associated with the largest contributors was dampened to prevent their experience from dominating the study results. Specifically, the exposure for companies that had more than 6% of the total exposure was dampened with a factor that was calculated as follows:

Carrier-Specific Dampening Factor = (6% / Carrier % of Total Exposure) ^ 0.5

Dampening was performed by applying the Carrier-Specific Dampening Factor to all exposures and terminations before summarizing the results.

Note that the above approach applies less dampening than was used in the 2008 study (when the exposure for each of the top five companies was reset to represent 12% of the total study exposure). Less dampening was needed as there were more contributing companies than in 2008.

Pivot Table Considerations

The following are some items that the user should bear in mind when contemplating the study pivot tables.

Interpreting Trends by Calendar Year

The study shows a pronounced upward trend in A/E Recovery Rates by calendar year. Specifically, the A/E ratio grades steadily upward from nearly 100% in 2004 to more than 125% in 2012.

At this point the Committee has not attempted to ascertain whether this trend represents a broad based improvement in claim management or other factors not directly related to claim management execution. These may include the addition of several new contributors whose experience is not reflected in the underlying expected basis (2008 GLTD Experience Table), changes in the weighting of company specific experience compared to the construction of the GLTD2008 Experience table, and changes in claim characteristics (e.g. diagnosis mix) over time.

In short, while a definite upward trend in A/E Recovery ratios is evident, it is premature to reach conclusions regarding the drivers of this trend.

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Comparison of A/E Recoveries to 2008 Study

To understand if the changes in A/E recovery rates from the 2008 study are being driven by either a different mix of contributing companies and/or different dampening factors, we compared A/E termination rates for the overlapping years of each study (2004 to 2006):

Termination Rate Comparison between studies - overlapping years

	Recovery A to E's				Death A to E's			
	2004	2005	2006	04-06	2004	2005	2006	04-06
2008 Study	103.3%	106.1%	105.4%	104.9%	94.8%	96.7%	95.6%	95.7%
2016 Study	99.7%	106.7%	108.6%	105.1%	90.5%	93.1%	92.5%	92.1%
Change	-3.7%	0.7%	3.2%	0.1%	-4.3%	-3.6%	-3.1%	-3.7%

The above shows that A/E recoveries were reasonably consistent between the two studies from 2004 to 2006, with results that were within 3.7% (and 0.1% for all three years combined). A/E Deaths were also reasonably close, but lower than the 2008 study for all three years.

A/E Recovery Ratios Through the Own Occupation/Any Occupation Transition Period

The 2008 Experience table includes monthly expected terminations for claims with limited own occupations periods from the month of the change in definition through 8 months after the transition month. The expected termination pattern through this period was based on the weighted results of the contributing companies. However, it is not necessarily the expected pattern for any one company.

The 2004-12 experience study shows widely fluctuating A/E ratios through the transition period, especially with respect to the transition month and the subsequent month. This result is not surprising given the addition of several new contributing companies with new weightings combined with the fact that a one day difference in the coding of the effective date of termination can alter the indicated transition termination month. In addition, we note that the prior 2008 study also showed highly variable results by the exact month of transition, but with the A to E set to 100% over the entire transition period.

In evaluating A/E ratios through the transition period it may be best to use combined results over the entire transition period, or at least the month of transition and the subsequent month.

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Termination Category for Claims with Internal Limits

Evaluation of A/E ratios with internal limits on the benefit period for a subset of claims is subject to the integrity of the categorization of claim terminations between recoveries, claims reaching the end of their contractual maximum benefit period (max-outs), and claims closed due to the internal limit. This is especially important in examining results for Mental & Nervous claims.

In the 1997-2006 experience study it was noted that in addition to claims closing due to the internal limit, there was an increase in max-outs and recoveries in the limit month and the next several months. Therefore, it was decided to analyze total terminations, excluding deaths, within 3 months of the limit date. The 2008 GLTD Experience Table was constructed using this methodology.

The Committee observed the same phenomenon in the 2004-12 experience study and recommends that Mental &Nervous claims be evaluated on the same total terminations excluding deaths basis for the period within 3 months on the limit date.

Termination Rates at Older Ages

The 2004-12 experience study contains material exposure volume for ages 65+ on both an attained age and age at disability basis. The Committee observed elevated A/E Recovery ratios for ages 65-69 on both bases. It is possible that some of the reported recoveries were truly max-outs, but a full evaluation has not been completed. Therefore, the Committee recommends caution in reaching conclusions about recovery results at advanced ages.

A/E Recovery Rates by Duration from Disability Date

The committee noted a decline in A/E recovery rates by disability year, starting in year 4 as summarized in the table below:

Duration of Disability	AE Recovery
Year: 1	110.7%
Year: 2	121.5%
Year: 3	135.7%
Year: 4	111.5%
Year: 5	93.1%
Year: 6 to 10	87.3%
Over 10 Years	79.6%
Grand Total	**113.9%**

This represents a change from the experience observed in the 2008 study. This will warrant further investigation from the committee to identify if there are specific drivers of this pattern.

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New Segmentation Variables

An enhancement from the 2008 study was the addition of several new segmentation variables to assess claim termination results against. Note that values for some of these variables were not available for all claims. There are more instances where claims have "unknown" listed as the value for these variables. The new variables are listed below, along with some comments:

- Taxability of Benefits (Full Taxable, Partially Taxable, Not Taxable, and Unknown): The Committee noted that the percentage of claims with non-taxable benefits was higher than we originally expected, but upon some investigation, we determined that the percentage appeared reasonable. Experience for Taxability "unknown" had significantly better experience than for other categories. If any contributor has ideas what may be driving that, they could send an e-mail to MIB with that info, and MIB could maintain that company's confidentiality (if that is a concern).

- Indexed Monthly Salary: For most claims, this value was consistent with the Indexed Gross Monthly Benefit. However, there were some instances where the Indexed Monthly Salary did not appear to be consistent. We recommend that results with this new variable be viewed with caution in situations where the benefit to salary relationship does not appear to be reasonable.

- Integration with STD: (Yes, No, Unknown)

- Industry: (25 categories based on SIC Code)

- Case-Size: (seven categories): Experience for Case Sizes "unknown" or "0" had significantly better experience than for other categories. If any contributor has ideas what may be driving that, they could send an e-mail to MIB with that info, and MIB could maintain that company's confidentiality (if that is a concern).

- Region: (nine categories)

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Pivot Table Details

The following summarizes the data elements included with each pivot table. Please note that in addition to the company segment that groups carriers by size, each participating carrier also receives an additional code that identifies their individual results. The pivot table header also identifies the group into which the individual carrier falls.

Pivot Table A

1. Company: Carriers were grouped by the total size of the submitted exposure with group 1 representing the largest 8 carriers, group 2 the second largest 8 carriers and group 3 the smallest nine carriers.
2. Elimination Period: 7 categories
3. Duration: quarterly for three years, year 4, year 5, year 6-10, and year 11+
4. Age at Disability: five year age groups
5. Diagnosis Group: 13 categories used in the GLTD2008 table
6. Limited Own Occ Period: six categories
7. OwnOcctoAnyTransition: seven categories defined relative to the transition month
8. Calendar Year: grouped into four categories

Pivot Table B

1. Company: Carriers were grouped by the total size of the submitted exposure with group 1 representing the largest 8 carriers, group 2 the second largest 8 carriers and group 3 the smallest nine carriers.
2. Elimination Period: 7 categories
3. Duration: quarterly for three years, year 4, year 5, year 6-10, and year 11+
4. Age at Disability: five year age groups
5. Diagnosis Group: 13 categories used in the GLTD2008 table
6. Gender
7. Attained Age: five year age groups
8. Annual Duration
9. Mental and Nervous Limit Period: five categories
10. M&N Limit Transition: six categories defined relative to M&N transition month
11. Calendar Year: grouped into four categories

Pivot Table C

1. Company: Carriers were grouped by the total size of the submitted exposure with group 1 representing the largest 8 carriers, group 2 the second largest 8 carriers and group 3 the smallest nine carriers.
2. Annual Duration
3. Limited Own-Occ Period: six categories

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4. OwnOcctoAnyTransition: seven categories defined relative to the transition month
5. Industry: 25 categories based on SIC Code
6. Age at Disability: four broad groups (<30, 30-44, 45-59, 60+)
7. Indexed Monthly Salary
8. Indexed Gross Monthly Benefit
9. Calendar Year: grouped into four categories

Pivot Table D

1. Company: Carriers were grouped by the total size of the submitted exposure with group 1 representing the largest 8 carriers, group 2 the second largest 8 carriers and group 3 the smallest nine carriers.
2. Elimination Period: 7 categories
3. Duration: quarterly for three years, year 4, year 5, year 6-10, and year 11+
4. Age at Disability: four broad groups (<30, 30-44, 45-59, 60+)
5. Diagnosis Group: 13 categories used in the GLTD2008 table
6. Indexed Monthly Salary
7. Indexed Gross Monthly Benefit
8. Taxability of Benefits: Full Taxable, Partially Taxable, Not Taxable, Unknown
9. Integration with STD: Yes, No, Unknown
10. Calendar Year: grouped into four categories

Pivot Table E

1. Company: Carriers were grouped by the total size of the submitted exposure with group 1 representing the largest 8 carriers, group 2 the second largest 8 carriers and group 3 the smallest nine carriers.
2. Elimination Period: 7 categories
3. Annual Duration:
4. Age at Disability: four broad groups (<30, 30-44, 45-59, 60+)
5. Diagnosis Group: 13 categories used in the GLTD2008 table
6. Case-Size: seven categories
7. Region: nine categories
8. Industry: twenty five categories
9. Calendar Year: grouped into four categories

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The Society of Actuaries (SOA), formed in 1949, is one of the largest actuarial professional organizations in the world dedicated to serving 24,000 actuarial members and the public in the United States, Canada and worldwide. In line with the SOA Vision Statement, actuaries act as business leaders who develop and use mathematical models to measure and manage risk in support of financial security for individuals, organizations and the public.

The SOA supports actuaries and advances knowledge through research and education. As part of its work, the SOA seeks to inform public policy development and public understanding through research. The SOA aspires to be a trusted source of objective, data-driven research and analysis with an actuarial perspective for its members, industry, policymakers and the public. This distinct perspective comes from the SOA as an association of actuaries, who have a rigorous formal education and direct experience as practitioners as they perform applied research. The SOA also welcomes the opportunity to partner with other organizations in our work where appropriate.

The SOA has a history of working with public policymakers and regulators in developing historical experience studies and projection techniques as well as individual reports on health care, retirement, and other topics. The SOA's research is intended to aid the work of policymakers and regulators and follow certain core principles:

Objectivity: The SOA's research informs and provides analysis that can be relied upon by other individuals or organizations involved in public policy discussions. The SOA does not take advocacy positions or lobby specific policy proposals.

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