SOA Research Institute

LIMRA

2015-2022 Group Long-Term Disability Incidence Study Data Request

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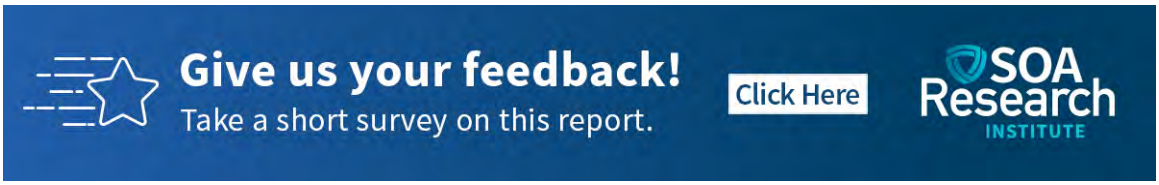
2015-2022 Group Long-Term Disability Incidence Study Data Request

AUTHORS Group Disability Experience Committee



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2015-2022 Group Long-Term Disability Incidence Study Data Request

Request for Data Contributions

The Society of Actuaries (SOA) Research Institute's Group Disability Experience Committee (GDEC or the Committee) and LIMRA are soliciting group long-term disability (LTD) incidence experience for 2015-2022.

Purpose of the Study

The SOA Research Institute and LIMRA are partnering together to complete industry experience studies. Under this partnership, the SOA Research Institute's GDEC and LIMRA plan to complete a group LTD incidence study in response to the results of an industry survey performed in fall 2022. The goals of this update are to:

- measure incidence rates for 2015 through 2022 in aggregate as well as several categorical variables, including elimination period, industry groups, case size bands, geographic areas, and diagnosis
- analyze conditional incidence rates for claims lasting at least a certain duration of time (e.g., 12 months, 24 months, etc.).

Form of Data Contributions

A detailed description of the data request documents can be found in Appendices A and B. Data can be submitted in one of the following file formats, which must use the ASCII character set:

- Microsoft Excel workbook;
- Comma-separated values (.csv) file;
- Fixed width Text (.txt) using specified columns to denote data elements;
- For formats that do not match the enclosed format specifications, column headings and/or attached mapping instructions are required.

Important Dates

Your timely voluntary data submission is a valuable contribution to this Study. We request your data, as described in the following section, no later than November 15, 2023. If you would like to contribute, but find that this timing is challenging, please contact StudyPro@soa.org. Once your company's intent to participate has been received, you will be sent a confidential company ID code.

Data Transmission Instructions

The SOA Research Institute and LIMRA have partnered to validate, compile and aggregate the data for this effort. When you are ready to submit your data, please send an email to SOADataTransmissions@limra.com and LIMRA will send you a secure link to facilitate the data transmission.

Study Outputs

A report with high level summary results of the study will be made publicly available.

In an effort to ensure these important industry studies can be funded on a sustainable basis, the SOA Research Institute and LIMRA will begin offering the detailed outputs of this work for purchase.

The following may be included in the outputs made available for purchase:

- detailed experience study report with analysis and commentary;
- a set of data visualization dashboards with the ability to filter on and drill down into the detail of the results of the study;
- dataset(s) containing the aggregated experience collected for the purpose of this study. The datasets may be made available in excel files, text files or downloads from the data visualization tool;
- models or other tools developed to support the analyses completed in the study; and
- other outputs as determined by the SOA Research Institute and LIMRA.

Any output of the study, whether publicly available or available for purchase, will not contain any private information or any confidential contributor level information.

Benefits to Data Contributors

Data contributors will be acknowledged in the study output. Their experience data will be part of a broad industry study that will benefit the industry. Data contributors whose data is retained for inclusion in the study and who purchase the available detailed study outputs will also receive the following benefits:

- the cost of any study outputs that are not publicly available will be deeply discounted for data contributors relative to the cost for non-data contributors.
    - Cost for non-contributors: $60,000
    - Cost for contributors whose data is retained for inclusion in the study: $15,000
- the ability to see their own experience results compared to the industry results in any non-public, data visualization dashboards or Excel pivot tables;
- the option to choose a group of no less than 5 peer companies from the companies who provided data to the study and receive a comparison of the aggregated results of these peer companies to their own company results;
    - If your company is chosen to be in another company's peer group, your company's confidentiality will be protected in any peer group analysis in the following ways:
        - A peer group must contain at least five (5) companies.
        - If needed, any company with data that dominates the rest of the group (i.e., represents more than 25% of the exposure for the group) will be scaled back to 25%.
    - If you submit data for more than one company, please contact StudyPro@soa.org if you prefer the data for all the companies to be combined as one 'company group' or kept as separate individual companies in your peer group analysis.
    - By being a data contributor, you acknowledge and agree that your company's data may be part of another company's peer group analysis. If you want to exclude your company's data from another company's peer group analysis, please notify StudyPro@soa.org. In this case, your company will not have the option to receive a peer group analysis.

- the opportunity to have a meeting with the SOA Research Institute and LIMRA researcher(s) who performed the analyses for the study. At this meeting, the contributor will be able to quickly gain deeper insights into the results and questions in specific areas of interest.

Data Access, Ownership and Retention

The SOA Research Institute and LIMRA have partnered together to collect and process experience data for this effort. The data collected under this partnership will be processed and housed within LIMRA's existing study data infrastructure. The agreement between the SOA Research Institute and LIMRA includes provisions to ensure the data is kept secure and confidential. Only SOA Research Institute and LIMRA staff directly involved with the project will have access to the original data. SOA Research Institute volunteers working on the experience analysis and table development will not have access to original data. For more information on LIMRA's information security program, please see the LLG (LIMRA) Governing Information Security Policy in the Appendix D.

The SOA Research Institute and LIMRA will create aggregated datasets from the original data contributions for the purpose of completing this effort. These aggregated datasets will not contain any personally identifiable information (PII). All aggregated datasets compiled by the SOA Research Institute and LIMRA from the original data contributions will be the property of the SOA Research Institute and LIMRA. Only SOA Research Institute staff, LIMRA staff, or contracted independent consultants will have access to contributor-level data. The aggregated datasets may be used for future research, education or other purposes and offerings, as deemed appropriate by the SOA Research Institute or LIMRA.

APPENDIX A – Data Request Description

A.1 OVERVIEW

The study covers experience from 1/1/2015 through 12/31/2022 using a claim valuation date of 06/30/2023. We are requesting information at three levels of detail. These levels are defined within three tabs of the accompanying workbook and can also be found in the tables below. We are requesting that all carriers match these formats and use the variable mappings as defined in the workbook and this appendix. This will likely involve a conversion or mapping process from your own sources of data. If you have capacity issues or questions on the mappings, the Group LTD experience committee will assign a data buddy who can assist with these conversions.

These three data files are specified as follows:

Policy by Month:

This submission should include one row for each Group LTD policy for each month within the study period when the policy was active. Some of the information, such as premium will change month to month, whereas other information such as policy effective dates will be static, but we ask you to fill these in for each month. If you capture premium amounts for periods longer than a month (e.g. quarterly or annual payments), we ask you to split these out into months based on a reasonable method for pro-rating the premiums. We are asking for lives and volumes and understand that these may not be readily available, but ask you to develop reasonable methods for filling these in. For example, covered volume can be calculated as the monthly billed premium divided by the inforce rate. Or, premium per life can be determined at time of sale or renewal and then used to determine the lives from the monthly billed premium. There should be one row for each policy for every month in which the LTD coverage is active and which falls within the study period.

We request some optional policy averages, such as average age, average salary, and percent female. These values can be determined monthly for list-billed business or filled in based on the last captured census.

Policy Plan

This submission should include one row for each policy, plan, and effective period of the plan. Unlike the monthly file, you should only include a row each time the plan changes, along with the beginning and ending effective dates of the LTD plan.

Some of the information such as SIC Code, ZIP code, employee participation, etc. may only be captured at the policy level, but we are asking for this information here, spread-out across the plans, along with the information that would be distinct at the plan level. If you only capture the plan information in aggregate at the policy level then you can place that information here but with only a single row for each policy and dates.

The plan items are identified as “Required” and “Optional” based on our estimate of the importance to claim incidence. You should make a significant effort to capture the required fields, but you still have the option of entering Blanks for unknown values. For the optional fields, please provide these if you have these already captured, but you can leave blank if you don’t have the capability to capture. If optional fields are only available for some of the policy level records, please include that which is available and leave the remaining blank.

For core / buy-up plans we expect to receive one plan record for the core and one for each buy-up option. If you do not capture the information in this format, please discuss with your data buddy how best to handle.

We are requesting lives and volumes for each plan as a way to allocate the exposure to the appropriate plans. Since the total information is included on the Policy by Month file, the absolute levels do not matter here, only the split between the plans. For example, if at time of rating you can see that 25% of lives are in Plan 1 and 75% in Plan 2 then you can just use these ratios here. If you really do not know or have a way to capture the lives or volume then leave blank and the Committee will decide how to handle in the data assembly.

If there is only a single plan per policy then unique plan identifier can be left blank.

Claims

The study period is defined as 1/1/2015 through 12/31/2022. We are requesting one row for each claim that was either 1) active and being paid at some point during the study period or 2) incurred during the study period with approval and receipt of at least one claim payment prior to the valuation date of 6/30/2023. Since this will include claims that were disabled prior to the study period, these may not be used for the LTD incidence study, but the Committee can use this file by itself for an updated termination study. This data request is very similar to the data request for the last LTD termination study to allow carriers to leverage prior data submissions. However, a policy ID has been added to allow the Committee to link the claims data to the policy by month and policy plan submissions. Some of the fields may not be used in the incidence study but are requested so that this file layout can be considered for an LTD termination study. These fields are all listed as optional.

Please provide one record per distinct claim. We understand that some carriers use multiple claim records to capture supplemental benefits, or for other reasons, and ideally these should be combined. The data request is restricted to claims that have been approved and have received at least one claim payment as of the study valuation date.

A.2 EXCLUSIONS

This study is intended to be restricted to fully insured Group LTD and so the following business should be excluded from this study:

1. ASO LTD
2. No shorter term-LTD coverage: This should exclude any group with an elimination period less than 30 days OR with a benefit duration less than 24 months.
3. Any business sold on an individual policy form or contract
4. LTD contracts that have been post-porting or conversion to a retired or terminated employee trust. Please include only exposure during time on traditional LTD plans.
5. Worksite business that is sold with a long contract guarantee and attained age rates, e.g. multi-life individual disability policies.
6. Voluntary Association LTD

A.3 DATA REQUEST LAYOUT

Additional submission guidelines and some data validation checks are described below in Appendix B.

The term "Blank" below refers to instances when the data is unknown and should be interpreted as the text string "BLANK", -9 (minus 9) for numerical fields and 19010101 for date fields.

Policy by Month Submission

Field No.	Variable	Required / Optional	Example	Comments
1)	Carrier Code	Required	AA	A unique code will be assigned by the SOA
2)	Unique Policy Identifier	Required	1234954	A unique identifier for the policy. You may use your own unique policy identifiers or create your own unique ID that can be linked to the other data files.
3)	Policy Effective Date	Required	20190101	The effective date of the LTD coverage for the policy - always start on day 1 of a month. Format YYYYMMDD.
4)	Policy Termination Date	Required	20201231	The date specifying the termination date of the LTD coverage for the policy. Format YYYYMMDD.
5)	Calendar Month	Required	1220	The calendar month for which the exposure is tracked MMYY
6)	Policy ZIP Code	Required	19103	Use the primary policyholder ZIP code. If there are multiple ZIP codes, then choose what you think if most representative of the group. Format 00000.
7)	Lives Exposed	Required	438	The total lives insured under the policy during the calendar month
8)	Covered Volume	Required	10000000	The total volume covered under the policy during the calendar month, determined from billing
9)	Definition of Volume	Required	2	The rating basis for the policy. Valid values include: Blank = Unknown 1 = Covered Payroll 2 = Gross Monthly Benefit 3 = Per Person Per Month 4 = Other
10)	Basis for Lives	Optional	1	Basis for lives and volume values: Blank = Unknown 1 = Exact values for the month based on billing 2 = Estimate from point of sale or prior period census 3 = Estimate from total premium 4 = Other
11)	Monthly Billed Premium	Optional	5236.13	The monthly billed premium for the policy during the calendar month.
12)	Average Monthly Salary	Optional	6700	Average monthly salary covered under the policy.
13)	Average Age	Optional	42.3	By-count average age of lives covered under the policy as of calendar month

14)	Percent Female	Optional	41%	By-count percentage of lives covered under the policy which are female as of the calendar month

Plan-Level Submission

Field No.	Variable	Required / Optional	Example	Comments
1)	Carrier Code	Required	AA	A unique code will be assigned by the SOA
2)	Unique Policy Identifier	Required	1234954	A unique identifier for the policy. This should match the codes used on the policy by month file.
3)	Unique Plan Identifier	Required	3	A unique identifier for the plan. You can use your own method of identifying plans or create unique identifiers for this submission.
4)	Plan Effective Date	Required	20190101	The effective date of the LTD plan - always start on day 1 of the effective period. Format YYYYMMDD.
5)	Plan Termination Date	Required	20201231	The date specifying the last day the LTD plan was effective. Format YYYYMMDD.
6)	STD Indicator	Required	1	This variable should identify policies with LTD Policies that are accompanied by a front-end STD and/or PMFL coverage from your company (including ASO). If the insurance status of the STD and PMFL differ then use the status for the product that has larger premiums. Valid Values: Blank = Unknown 1 = Packaged with Fully-Insured STD and/or PMFL 2 = Packaged with ASO STD and/or PMFL 3 = Packaged with STD and/or PMFL but insurance status is Unknown 4 = No Packaging with STD or PMFL
7)	Employee Contribution	Required	1	Blank = Unknown 1 = None 2 = Partial, with mandatory participation 3 = Core/Buyup 4 = Gross-up: mandatory participation - 100% EE contrib 5 = Full contrib without mandatory participation
8)	Actual Employee Participation	Required	1	Blank = Unknown 1 = 100% 2 = 75% to 99% 3 = 50% to 74% 4 = 25% to 49% 5 = less than 25%
9)	Taxability of Benefits	Required	T	This variable should indicate the tax status of benefits for the plan Blank = Unknown T = 100% Taxable

				N = 100% Non-Taxable P = Partial Taxability
10)	Standard Industrial Classification (SIC) Code	Required	8049	This variable should identify the industry that the employer group was operating in as plan effective date, as defined by the Standard Industrial Classification system. Most recent SIC code is acceptable. 4 Digit numerical character (e.g. 0111, 8211, etc.) Unknown SIC's should be Blank
11)	Lives for Plan	Required	500	Used to allocate policy lives across plans, when more than one plan available for policy. If you do not know the exact lives make an effort to estimate the lives based on the proportion of lives in each plan. These lives will not be used directly, but will be used to allocate lives from the Policy by Month file
12)	Exposure for Plan	Required	1000000	Used to allocate policy exposure across plans, when more than one plan available for policy. Preference is covered payroll or gross monthly benefit.
13)	Elimination Period	Required	90	Plan Elimination Period in days.
14)	Benefit Percent	Required	60%	The percent of earnings that represents the monthly benefit. Valid values include: Blank = Unknown -1 = flat -2 = split XX% = Benefit Percent
15)	Flat Benefit	Required		Flat benefit. Valid values include: Blank = benefit is percentage entered value = flat benefit amount
16)	Limited Own Occ Claim Indicator	Required	1	Indication as to whether claims under the Plan are subject to limited Own Occ period. Valid values include: Blank = Unknown 1 = Yes 2 = No
17)	Length of Own Occupation Period	Required if Limited Own Occ Claim = ”Yes”	24	The length of time expressed in months that the claimant is entitled to receive benefits while being unable to perform their own occupation, as specified in the plan. Enter 999 for unlimited.
18)	Mental & Nervous Benefit Limit Indicator	Required	1	Indication as to whether the plan contains a Mental & Nervous benefit period limit. Valid values include: Blank = Unknown 1 = Yes 2 = No
19)	Mental & Nervous Benefit Period Limit	Required if Mental & Nervous Benefit Limit Indicator = ”Yes”	24	The length of time expressed in months that the claimant is entitled to receive benefits with a Mental & Nervous diagnosis. Enter 999 for unlimited.
20)	Core/Buy-up	Required if Core/Buy up is	1	Blank = Unknown 1 = Core (includes plans with no buy-up) 2 = Buy-up

		specified in item 7)		
21)	Maximum Duration Value	Optional	65	Blank if SSNRA
22)	Maximum Duration Type	Optional	1	Blank = Unknown 1 = ToAge 2 = SSRNA 3 = Months 4 = Years 999 = Lifetime benefit
23)	Maximum Benefit	Optional	30000	The maximum contractual amount of the monthly gross benefit that any claimant is entitled to under the Plan.
24)	Own Specialty Definition	Optional	1	Definition of disability includes own specialty language. Blank = Unknown 1 = Yes 2 = No
25)	Drug & Alcohol Benefit Limit Indicator	Optional	1	Indication as to whether the plan contains a Drug & Alcohol benefit period limit. Valid values include: Blank = Unknown 1 = Yes 2 = No
26)	Drug & Alcohol Benefit Period Limit	Optional, but only applicable if D & A Benefit Limit Indicator = 1	24	The length of time expressed in months that the claimant is entitled to receive benefits with a Drug & Alcohol diagnosis. Enter 999 for unlimited.
27)	Other Diagnoses Benefit Limit Indicator	Optional	1	Indication as to whether the plan for this claim contains a benefit period limit for diagnoses other than Mental & Nervous or Drug & Alcohol. Valid values include: Blank = Unknown 1 = Yes 2 = No
28)	Other Diagnoses Benefit Period Limit	Optional, but only applicable if other Benefit Limit Indicator = 1	24	The length of time expressed in months that the claimant is entitled to receive benefits subject to benefit period limit for diagnoses other than Mental & Nervous or Drug & Alcohol. Enter 999 for unlimited.
29)	Social Security Integration	Required	3	Blank = Unknown 1 = Yes 2 = No 3 = All Source / Backdoor
30)	COLA Benefit Indicator	Optional	1	Indication as to whether a Plan has a COLA benefit of any kind. Valid values include: Blank = Unknown 1 = Yes 2 = No

31)	And/Or Definition	Optional	2	Blank = Unknown 1 = Earnings and Work Capacity Loss 2 = Earnings or Work Capacity Loss
32)	Pre-existing Condition	Required	3	Blank = Unknown 1 = 3/12 2 = 6/12 3 = 12/12 4 = 12/24 5 = 3/3/12 6 = 3/6/12 7 = 12/12/24 8 = None 9 = Other
33)	Pre-existing Condition Provision Type	Required	2	Blank = Unknown 1 = Limited benefit 2 = Exclusion 3 = Other
34)	Employee ZIP Code	Required	19103	Use the primary policyholder ZIP code. If there are multiple ZIP codes, then choose what you think if most representative of the group.

Claims Submission

Field No.	Variable	Required / Optional	Example	Comments
1)	Carrier Code	Required	AA	A unique code will be assigned by the SOA
2)	Unique Policy Identifier	Required for claims incurred on or after 1/1/2015	1234954	A unique identifier for the policy. This should match the codes used on the policy by month file. (Field is optional for claims incurred prior to 1/1/2015)
3)	Unique Plan Identifier	Optional	3	A unique identifier for the plan. If you fill this in, please match the plan ID on the Policy Plan file. Blank if unknown
4)	Claim Status	Required	1	The status code for the claim as of the valuation date. Valid values include: 1 = Open 2 = Closed You may have additional statuses including in suspense, or in litigation. If you hold a reserve, list as open, otherwise closed.
5)	Termination Code	Required on closed claims	1	The reason that the claim was terminated: Blank if Claim Status = 1. Otherwise, valid values include: 1 = Death 2 = Maximum contractual duration (e.g. age 65) reached (this does not include claims reaching internal limits such as Mental & Nervous) 3 = Termination due to expiration of benefits subject to internal limits such as Mental & Nervous 4 = Recovery 5 = Settlement (considered a settlement if the amount paid is in excess of 6 months of monthly benefit)
6)	Date of Birth	Required	19750505	The claimant's date of birth - YYYYMMDD
7)	Date of Disability	Required	20190701	The date that the claimant became disabled - YYYYMMDD

8)	Benefit Commencement Date	Optional	20191001	The effective date of the first payment - YYYYMMDD
9)	First Paid Date	Optional	20191015	The date the first disability payment was made (check cutting date) - YYYYMMDD
10)	Liability Termination Date / Maximum Paid Through Date	Optional	20201201	The date specifying the end of the liability (not the calendar date of the action) - YYYYMMDD
11)	Claim Maximum Date / Contractual Benefit End Date	Optional	20420701	The date that the contractual maximum duration was, or will be, reached not including any internal limits (i.e., Mental & Nervous, Self-reported, etc.) - YYYYMMDD
12)	Sex	Required	1	Valid values include: Blank = Unknown 1 = Male 2 = Female Companies should make every attempt to determine sex for each claim.
13)	Diagnosis Code	Required	I25.118	The original primary ICD-9 or ICD-10 code of the sickness or accident that caused the disability. If not available, current diagnosis code is acceptable.
14)	Diagnosis Code Type	Required	1	Valid values include: Blank = Unknown 1 = ICD-9 2 = ICD-10
15)	Gross Benefit Amount	Required	12523	The base contractual amount of the monthly gross benefit that the claimant is entitled to. If only the current gross benefit amount, including COLA impact, is available, that is acceptable. Integer (e.g. 100000, 45000, etc.)
16)	COLA Benefit Indicator	Required	2	Indication as to whether a claim has a COLA benefit of any kind. Valid values include: Blank = Unknown 1 = Yes 2 = No
17)	Claimant Elimination Period	Required	90	The elimination period for the claim expressed in days.
18)	Limited Own Occ Claim Indicator	Required	1	Indication as to whether claim is subject to limited Own Occ period (includes SS definition). Valid values include: Blank = Unknown 1 = Yes 2 = No
19)	Length of Own Occupation Period	Required if Limited Own Occ is Indicator = 1	24	The length of time expressed in months that the claimant is entitled to receive benefits while being unable to perform their own occupation, as specified in the plan. Enter 999 for unlimited.

20)	Mental & Nervous Benefit Limit Indicator	Required	2	Indication as to whether the policy for this claim contains a Mental & Nervous benefit period limit. Valid values include: Blank = Unknown 1 = Yes 2 = No
21)	Mental & Nervous Benefit Period Limit	Required if M & N Benefit Limit Indicator = 1	24	The length of time expressed in months that the claimant is entitled to receive benefits with a Mental & Nervous diagnosis. Enter 999 for unlimited.
22)	Drug & Alcohol Benefit Limit Indicator	Optional	1	Indication as to whether the plan for this claim contains a Drug & Alcohol benefit period limit. Valid values include: Blank = Unknown 1 = Yes 2 = No
23)	Drug & Alcohol Benefit Period Limit	Optional, but only applicable if D & A Benefit Limit Indicator = 1	24	The length of time expressed in months that the claimant is entitled to receive benefits with a Drug & Alcohol diagnosis. Enter 999 for unlimited.
24)	Other Diagnoses Benefit Limit Indicator	Optional	1	Indication as to whether the plan for this claim contains a benefit period limit for diagnoses other than Mental & Nervous or Drug & Alcohol. Valid values include: Blank = Unknown 1 = Yes 2 = No
25)	Other Diagnoses Benefit Period Limit	Optional, but only applicable if other Benefit Limit Indicator = 1	24	The length of time expressed in months that the claimant is entitled to receive benefits subject to benefit period limit for diagnoses other than Mental & Nervous or Drug & Alcohol. Enter 999 for unlimited.
26)	STD Indicator	Required	1	This variable should identify LTD claims that are accompanied by a STD claim from your company (including ASO). Valid Values: 1 = with Fully-Insured STD 2 = with ASO STD 3 = with STD, but not known whether ASO or Fully Insured 4 = No STD with your company Blank = Unknown
27)	Taxability of Benefits	Required	T	This variable should indicate the tax status of LTD benefits. T = 100% Taxable N = Non-Taxable P = Partial Taxability Blank = Unknown

28)	Monthly Salary	Required	10000	This variable should show the claimants' pre-disability monthly earnings based on the earnings definitions in the LTD contracts. Integer (e.g. 100000, 45000, etc.) Unknown salaries should be coded as "0"
29)	State of Residence	Required	ME	This variable should indicate claimants'' states of residence as of the most recent valuation date. 2-digit alphabetical character (e.g. ME, CA, etc.) Unknown states of residence should be Blank
30)	Current SS Status	Required	Y	SS Status as of Valuation Date (6/30/2023). Treat PERS/STRS as equivalent to SS Y = Yes (approved) N = No Blank = Unknown
31)	SS Award Date	Required	20200101	The date the SS award was approved, or best estimate - YYYYMMDD. If item 30 is N or Blank, this field should be Blank. If item 30 is coded Y and the SS Award Date is unknown, code this field Blank.
32)	Net Benefit	Optional	12523	The current ongoing net monthly benefit that the claimant is entitled to receive. Blank if unknown.
33)	Standard Industrial Classification (SIC) Code	Optional	8049	This variable should identify the industry that a claimant's employer group was operating in as of the LTD date of disability, as defined by the Standard Industrial Classification system. Most recent SIC code is acceptable. 4 Digit numerical character (e.g. 0111, 8211, etc.) Unknown SIC's should be coded as Blank
34)	Case Size	Optional	100	The number of LTD covered lives associated with the group policy (as of most recent date is acceptable). Blank if unknown.
35)	Policy ZIP Code	Required	19103	Use the primary policyholder ZIP code. If there are multiple ZIP codes, then choose what you think if most representative of the group.

APPENDIX B – Data Submission Guidelines and Data Validation Checks

For this study, study data will be assembled and processed by the SOA and LIMRA, with validation rules specified by the GDEC. The Committee will then make decisions about how to handle data integrity issues, which can include excluding data, using default fixes, or potentially asking for a resubmission. In order to streamline this process, it will be helpful if the submitting companies do their own validation prior to submission. The validation rules are listed below, along with some suggestions as how to handle discrepancies that arise.

One point to note is that we expect many carriers to participate and so there should be sufficient data for a very robust study, which means it is less important for the submissions to be 100% complete than it is for the submissions to be mostly free of data integrity issues. This means that if you have policies or blocks of business with significant data quality issues, or for which you have significant difficulty capturing the required data, or which do not meet the normal definition of long-term disability, then you should feel free to drop this business from the study. If you are dropping groups from the exposure files, then please make sure the claims against this business are also dropped.

Each carrier will be assigned a data buddy that can help with the validation and provide advice on how to handle data validation issues.

Policy by Month Submission

1) Carrier Code: Please enter as assigned by the SOA

2) Unique Policy Identifier: This field can be your own policy number or a unique ID created for this study. We will look for duplicate identifiers for a given exposure month. If there are duplicates, we will likely drop one record or combine records depending on the reasons given for the duplicates.

3 & 4) Policy Effective and Termination Dates: These should be the effective dates of the LTD coverage. We will look for effective dates after the monthly exposure or termination dates before the monthly exposure. We will either drop the exposure months or modify the dates depending on the carrier responses.

5) Calendar Month: These should fall within the study period (1/1/2015 – 12/31/2022) and will also be checked against the effective and termination dates as indicated above.

6) Policy ZIP Code: Should be a valid 5-digit ZIP code. Invalid ZIP codes will be reported as unknown. If the three-digit ZIP code is supplied, we will convert these to a valid ZIP code.

7) Lives Exposed: Carriers should make sure the exposure count is not double counting any covered employees. For example, billing practices associated to core / buy-up plans may create situations where bills include all covered employees in the core plus all employees in buy-up plans resulting in significantly inflated exposure. Carriers should feel free to remove cases where exposure is subject to duplications that cannot be properly corrected. Overall, lives exposed should be greater than zero. These will be compared against billed premium with premium-per-life checked against minimum and maximum thresholds. Most groups should have lives exposed between 5 and 25,000 lives.

8) Covered Volume: Should be greater than zero. These will be compared against Billed Premium and against Lives Exposed for reasonability.

9) Definition of Volume: Blank or 1-4

10) Basis for Lives: Blank or 1-4

11) Monthly Billed Premium: Should be greater than zero. Will be validated against Lives Exposed and Covered Volume as described above. If you capture premium amounts for periods longer than a month (e.g., quarterly or annual payments), we ask you to split these out into months based on a reasonable method for pro-rating the premiums. For cases subject to school year billing (10 months billed at 120% of normal bill and 2 months without any bill), we also ask that you normalize the lives and premium figures to represent a continuous 12-month billing scheme.

12) Average Monthly Salary: Should be greater than zero. Valid values will be between $100 and $1,000,000.

13) Average Age: Greater than or equal to 15 and less or equal to 75

14) Percent Female: Greater than or equal to zero and less than or equal to 100%

Plan-Level Submission

1) Carrier Code: Please enter as assigned by the SOA

2) Unique Policy Identifier: Should match Policy Identifier on the Policy by Month Submission. If there is no match it is likely that we will drop the plan row.

3) Unique Plan Identifier: We will look for duplicates with the same policy identifier. We will make a decision about whether to drop the policy or consolidate the plans based on the other plan items.

4 & 5) Plan Effective and Termination Dates: These dates will be checked against the policy dates. Plan Effective Date should be greater than or equal to the Policy Effective Date and the Plan Termination Date should be less than or equal to the Policy Termination Date. If the Plan Effective Date is less than the Policy Effective Date or the Plan Termination Date is greater than the Policy Termination Date then the Plan Dates will be set to match the Policy Dates. If there is a gap between the Policy Effective Date and the earliest Plan Effective Date then we will back date the earliest Plan Effective Date to match the Policy Effective Date. If the Policy Termination Date is greater than the latest Plan Termination Date then we will update the latest Plan Termination Date to match the Policy Termination Date. If there are gaps between different plan effective periods for the same policy then we will modify the Plan Termination Dates to eliminate the gaps. In other words, coverage will be based only on the Plan Effective Dates.

6) STD Indicator: Blank or 1-4.

7) Employee Contribution: Blank or 1-5: Determined ideally at the plan level. If this is known only at the policy level then use that.

8) Actual Employee Participation: Blank or 1-5. Determined ideally at the plan level. If this is known only at the policy level then use that.

9) Taxability of Benefits: Blank or T, N, P. This code will be checked for consistency with the Employee Contribution codes. If there are a small proportion of inconsistencies, we will fix this code to ensure consistency, but if there are a large proportion, we will ask the carrier to review.

10) Standard Industrial Classification Code (SIC Code): Should be a valid 4-digit code. If 4-digit codes are not available, consult with your assigned data buddy.

11) Lives for Plan: Should be greater than zero. If there is only one plan for a policy, we will ignore this entry. If there are multiple plans, we will allocate policy lives based the lives for the plan divided by the lives for all plans within that policy.

12) Exposure for Plan: Should be greater than zero. If there is only one plan for a policy we will ignore this entry. If there are multiple plans, we will allocate Covered Volume for the plan based on the exposure for the plan divided by the exposure for all plans within that policy.

13) Elimination Period: Plan Elimination Period in days.

14) Benefit Percent: Greater than 0 and less or equal to 100%, or Blank, -1, or -2. Values that are obviously percentages rather than numbers will be converted. For example, 60 will be converted to 0.60. Other invalid entries will be treated as unknown. Blank if plan has a flat benefit.

15) Flat Benefit: Greater than zero and less than 10,000. Blank if plan has a Benefit Percent. Either Flat Benefit or Benefit Percent should be populated.

16) Limited Own Occ Indicator: Blank, 1, or 2.

17) Length of Own Occupation Period: Greater than or equal to zero and less than or equal 120. Values greater than 120 will be converted to Blank. Enter 999 if unlimited. Code as Blank if unknown.

18) Mental and Nervous Benefit Limit Indicator: Blank, 1 or 2

19) Mental and Nervous Period Limit: Greater than or equal to zero and less than or equal 120. Values greater than 120 will be converted to Blank. Enter 999 if unlimited. Code as Blank if unknown.

20) Core / Buyup: Blank, 1 or 2. We will look for values of 2 on a policy with no associated value of 1 for the same policy. If this occurs, we may drop this policy or convert to Blank.

21) Maximum Duration Value: Blank or a positive integer less than or equal to 999. We will look for consistency with the Maximum Duration Type. For example, if the value is between 12 and 60 and the Maximum Duration Type indicates "to-age" (1) then we will covert this type to "months" (3).

22) Maximum Duration Type: Blank or 1-4. For lifetime benefits, input 999.

23) Maximum Benefit: The maximum contractual amount of the monthly gross benefit that any claimant is entitled to under the Plan. Should be a number greater than zero.

24) Own Specialty Definition: Blank, 1 or 2.

25) Drug and Alcohol Benefit Limit Indicator: Blank, 1 or 2

26) Drug and Alcohol Period Limit: Greater than or equal to zero and less than or equal to 120. Values greater than 120 will be converted to Blank. Enter 999 if unlimited. Code as Blank if unknown.

27) Other Diagnoses Benefit Limit Indicator: Should be Blank, 1 or 2

28) Other Diagnoses Benefit Period Limit: Should be an integer between 0 and 120. Enter 999 if unlimited. Blank if unknown. We look for discrepancies between the Other Indicator and this field, flagging values of 1 with no Other Limit or values of 2 with a limit. If there are a few discrepancies we will likely force consistency, but if there are many, we will ask the carrier to review.

29) Social Security Integration: Blank, 1-3. There are many types of alternative integration. These should all be coded as 3.

30) COLA Benefit Indicator: Blank, 1 or 2. COLA of any type should be grouped as 2.

31) And / Or Definition: Blank, 1 or 2. We acknowledge that there are many variants of this definition but would like to keep this simple. Traditional LTD coverage that requires and earnings loss and a loss of work capacity should be coded 1. Any variant that involves not needing one of those losses to qualify should be coded as 2.

32) Pre-Existing Condition: Blank or 1-9. If you have a pre-existing condition that is close to one of the predefined codes, please convert to match that code.

33) Pre-existing Condition Provision Type: Blank or 1-3.

34) Employee ZIP Code: Should be a valid 5-digit ZIP code. Invalid ZIP codes will be reported as unknown. If the three-digit ZIP code is supplied, we will convert these to a valid ZIP code.

Claims Submission

We have kept the form of the claim submission extract in substantially the same form as the last LTD claim termination request in order to make it easier to use this submission or one like it at a later time frame for a subsequent termination study. Since this extract is to be used for the incidence study the guidelines and data validation checks are kept limited consistent with what is more important for this study.

1) Carrier Code: Please enter as assigned by the SOA

2) Unique Policy Identifier: This should be the same numbers as provided for the Policy and Plan submissions. We will look for matches on the policy file both for the ID itself and for a date of loss that falls within the monthly exposure. If there are a few claims that do not match, we will drop the claim. If there are many mismatches we will ask the submitting carrier to review the IDs and dates. This field is required for claims incurred on or after 1/1/2015 and optional for claims incurred prior to 1/1/2015.

3) Unique Plan Identifier: This field will be used to match back to the plan items to potentially validate the plan items on the claims. We understand that in many instances the plan ID is not on the claim record and so this field is listed as optional. Even without this option we will be checking to see whether the plan value listed on the claim matches one of the plan values for that policy. We understand there will be some mismatches and will be looking for large systematic issues that might pertain to a data collection error.

4) Claim Status: The allowed values are 1 or 2 for open and closed. We understand that there are many additional statuses associated with claims and then general rule is that if you are holding a reserve for expected payments other than for survivor benefits or due to an expectation of potential reopen, then the claim should be counted as Open. If the claim is listed as closed, we will look for a Termination Code and Liability Termination Date. Claims that are closed but with a reserve for potential future reopening should be considered closed.

5) Termination Code: Blank or 1-5: These codes match the most recent LTD Term study. Any reason for termination other than the explicitly defined values of Death, Max Duration, M&N or other contractual limits, and Settlement should be coded as Recovery or code 4. Settlement is defined as a lump payment that exceeds six months of net benefit. A claim that is closed after paying off less than six months of expected benefit should count as a recovery with the Liability Termination Date being the end of the payout period. The code should be Blank if the Claim Status value is 1 (open). If there are other values on open claims, we will reset these to Blank.

6) Date of Birth: This should be a valid date. If you only have age and not date of birth, fill in the date of birth by subtracting the age in years from the Date of Disability. In addition, the age implied by the date of birth and the date of disability should be greater than 14 or less than 120.

7) Date of Disability: Should be a valid date prior to the end of the study (12/31/2022). Technically we only need dates of disability that will within the study period (>= 1/1/2015) but we are asking for all dates of loss consistent with what we would request for the claim termination study. This extract should include any claim that was open within the study period.

8) Benefit Commencement Date: Should be a valid date on or after the Date of Disability. This should be defined as the first day on which a claimant is eligible for benefit. Normally, this would be the end of the elimination period and the difference between this date and the date of loss should equal to the plan elimination period in days, but there are instances when the date will differ to due salary continuation or

some other reason. If there are a high proportion of claims where the Benefit Commencement Date differs from the Claimant Elimination Period then we will ask the carrier to review.

9) First Paid Date: Should be a valid date on or after the date of loss and prior to the claim valuation date. This field is used only to verify that the claim has been paid and listed as optional. If the date is after the valuation date the claim will be discarded.

10) Liability Termination Date/Maximum Paid Through Date: Should be a valid date on or after the Benefit Commencement Date. This is the date through which benefits have been paid. If a claim was closed and paid off with an amount equal to less than six months of benefit, then the date should be equal to the date through which the claimant would have been paid had the claim been paid the current net benefit each month. If the amount is more than six months of net benefit, then the claim counts as "Settled" and the date should be set to the date the claim was closed. If the Liability Termination Date is after the end of the study period then the claim will be counted as open. This field is required for all claims with a current status of closed.

11) Claim Maximum Date/ Contractual Benefit End Date: This is the plan maximum date, not counting any benefit limits due to diagnosis such as Mental and Nervous or Drug and Alcohol. This should be consistent with the Maximum Duration listed in the Policy-Plan submission, within +/- 3 months.

12) Sex: should be Blank, 1, or 2. Code sexes other than Male or Female as Blank.

13) Diagnosis Code: This should be a valid ICD-9 or ICD-10 code. We have also requested this as the original code, but if all that is available is the current code, then please submit the current code. We will make an effort to convert apparent invalid codes if they are near a valid code or look to be a shortened version of a valid code. If the code does not map at all to valid codes, it will be converted to Blank or unknown.

14) Diagnosis Code Type: should be Blank, 1 or 2. Even if Blank, our mappings can likely determine whether the code is either a valid ICD-9 or ICD-10 code.

15) Gross Benefit Amount: should be greater than zero. The gross benefit amount should be checked against the highest maximum benefit for that policy. If a few Gross Benefit Amounts are greater than the maximum, then these will be capped by the maximum or otherwise modified based on the values. For example, the amounts may be divided by 100 if it looks like a misplaced decimal is the issue. If there are a large number of Gross Benefit Amounts greater than the maximum, we will ask the carrier to review.

16) COLA Benefit Indicator: should be Blank, 1 or 2. Any COLA provision at all of any type should be listed as 2.

17) Claimant Elimination Period: This should be greater than 14 and less than 730. If the plan is for a specified number of months, you can either use the 30-day convention (3 months = 90 days) or subtract the Date of Disability from the expected Benefit Commencement Date (which could be 91 or 92 days). We will check the Claimant Elimination Period against the Benefit Commencement Date. A commencement date less than the Date of Disability plus Claimant Elimination Period will be reviewed. If there are a few commencement dates greater than this date then we will let them flow through. If there are a high proportion we will ask the carrier to review.

18) Limited Own Occ Claim Indicator: Should be Blank, 1 or 2.

19) Length of Own Occupation Period: Should be an integer between 0 and 120. Values greater than 120 will be assumed to be unlimited. We look for discrepancies between the Own Occ Indicator and this field, flagging values of 1 with Unlimited Own Occ or values of 2 with a limit. If there are a few discrepancies we will likely force consistency, but if there are many, we will ask the carrier to review. Enter 999 if unlimited. Blank if unknown.

20) Mental & Nervous Benefit Limit Indicator: Should be Blank, 1 or 2

21) Mental & Nervous Benefit Period Limit: Should be an integer between 0 and 120. Values greater than 120 will be assumed to be unlimited. We look for discrepancies between the M&N Indicator and this field, flagging values of 1 with Unlimited M&N or values of 2 with a limit. If there are a few discrepancies we will likely force consistency, but if there are many we will ask the carrier to review. Enter 999 if unlimited. Blank if unknown.

22) Drug & Alcohol Benefit Limit Indicator: Should be Blank, 1 or 2

23) Drug & Alcohol Benefit Period Limit: Should be an integer between 0 and 120. Enter 999 if unlimited. Blank if unknown. We will look for discrepancies between the D&A Indicator and this field, flagging values of 1 with Unlimited D&A or values of 2 with a limit. If there are a few discrepancies we will likely force consistency, but if there are many, we will ask the carrier to review.

24) Other Diagnoses Benefit Limit Indicator: Should be Blank, 1 or 2

25) Other Diagnoses Benefit Period Limit: Should be an integer between 0 and 120. Enter 999 if unlimited. Blank if unknown. We look for discrepancies between the Other Indicator and this field, flagging values of 1 with no Other Limit or values of 2 with a limit. If there are a few discrepancies we will likely force consistency, but if there are many, we will ask the carrier to review.

26) STD Indicator: Should be Blank, 1-4.

27) Taxability of Benefits: Allowed values are T, N, P, or Blank (for unknown).

28) Monthly Salary: This should be between $100 and $10M. This will be checked against the Gross Benefit Amount, Benefit Percent, and the maximum benefit for the policy, flagging instances where the Monthly Salary times the Benefit Percent is less than the Gross Benefit Amount. We will also flag instances when the product is greater than the Gross Benefit Amount but the Gross is less than the lowest Maximum Benefit Amount for the policy. If there are a small proportion of discrepancies then we will clean them up, but if there are large proportion we will ask the carriers to review.

29) State of Residence: Should be a valid two-digit state abbreviation. If the code is not valid it will be counted as unknown. Note that we have asked for State of Residence of the claimant. If this is not known you can enter the domicile state for the Policy.

30) Current SS Status: Should be N, Y, or U. This identifies whether there is a known SS award. Other awards such as PERS or STRS disability should be treated like SS. Retirement SS should not be counted as an SS award.

31) SS Award Date: Should be a valid date between the Date of Disability and the Claim Valuation Date. This field is intended to indicate when the insured was notified of the award rather than the effective date of the award. We will check the distribution of dates relative to the Date of Disability. If there are a high proportion in the sixth month of duration, then we will ask the carrier to review to make sure we are not getting the effective dates of the awards. If there are a small number of invalid dates, then we will address. If there are large number of invalid dates, then we will ask the carrier to review.

32) Net Benefit: Should be Blank or between 0 and 100K. This is the current ongoing Net Benefit amount. This amount can be greater than the Gross Benefit Amount due to COLA or supplemental benefits. We will look for significant outliers, such more than 10 times the Gross Benefit Amount and then treat as unknown.

33) Standard Industrial Classification (SIC) Code: Should be a valid SIC code.

34) Case Size: Should be Blank or between 1 and 1M. Ideally this would be the group size at the Date of Disability, but this also could be whatever you have on record for the policy. If this field is invalid or missing, it can be filled in from the Policy Submission.

35) Policy ZIP Code: Should be a valid 5-digit ZIP code. Invalid ZIP codes will be reported as unknown. If the three-digit ZIP code is supplied, we will convert these to a valid ZIP code. If this field is invalid or missing, it can be filled in from the Policy Submission.

Appendix C - LLG Governing Information Security Policy

LLG Information Technology has created and maintains a comprehensive information security program called Governing Information Security Policy for LLG. This program covers information security, risk assessment, and privacy for all LLG IT activities. The program ensures that LLG has in place adequate technical, administrative, and physical safeguards to protect sensitive information. LLG's Chief Information Security Officer is the owner of the program document, and reviews and updates it annually.

1. ZERO TRUST ARCHITECTURE MODEL

LLG's security model is centered on the belief that devices are not to automatically trusted inside or outside our perimeters. All connections must verify and continually be verified they meet a defined set of requirements before being granted access as well as ongoing access.

2. PHYSICAL SECURITY

LLG has industry best practice physical controls to protect staff, information, and guard against intrusion theft, damage, and unauthorized access. A badge reader system controls access to LLG's facilities, computer rooms, and areas where sensitive information is stored. Employees, contractors, and consultants have photo ID badges that must be prominently displayed. Visitors and third parties must be provided with badges that are prominently displayed at all times during their use of LLG's buildings. LLG IT maintains procedures to ensure that computer and communications rooms are secured and protected from fire.

3. DATA STORAGE

The physical storage location of data is Windsor, CT. The core physical infrastructure that includes physical hardware asset management, security, data protection, and networking services is managed by LLG staff. All systems are managed, monitored, and operated by LLG.

4. END-POINT PROTECTION

LLG Information Technology department develops, maintains, and revises as needed, a manual of procedures that govern the following:

- Use of software to protect the computing environment from viruses and other malicious tools
- Updating the computing environment with "patches" for known vulnerabilities
- Restricting the ability of unprotected systems to access the environment
- Installed and running on all LLG connected computers is an industry approved end-point protection software program that is updated regularly. Definitions are set to update daily.

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Serving as the research arm of the Society of Actuaries (SOA), the SOA Research Institute provides objective, data-driven research bringing together tried and true practices and future-focused approaches to address societal challenges and your business needs. The Institute provides trusted knowledge, extensive experience and new technologies to help effectively identify, predict and manage risks.

Representing the thousands of actuaries who help conduct critical research, the SOA Research Institute provides clarity and solutions on risks and societal challenges. The Institute connects actuaries, academics, employers, the insurance industry, regulators, research partners, foundations and research institutions, sponsors and non-governmental organizations, building an effective network which provides support, knowledge and expertise regarding the management of risk to benefit the industry and the public.

Managed by experienced actuaries and research experts from a broad range of industries, the SOA Research Institute creates, funds, develops and distributes research to elevate actuaries as leaders in measuring and managing risk. These efforts include studies, essay collections, webcasts, research papers, survey reports, and original research on topics impacting society.

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Society of Actuaries Research Institute
475 N. Martingale Road, Suite 600
Schaumburg, Illinois 60173
www.SOA.org

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