

Long-Term Care Insurance Mortality and Lapse Study

Warren Jones, MAAA, FSA, FCA
Chairperson, Valuation Work Group

SOA
Research
INSTITUTE



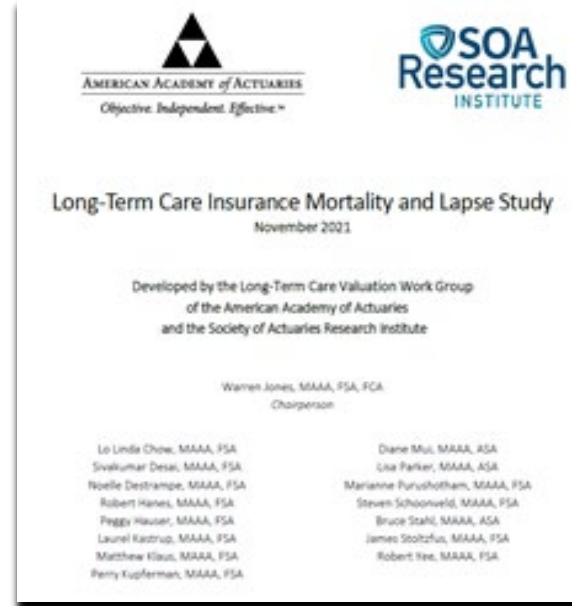
AMERICAN ACADEMY of ACTUARIES

Objective. Independent. Effective.™

Developed by the Long-Term Care Valuation Work Group
of the American Academy of Actuaries
and the Society of Actuaries Research Institute

Long-Term Care Insurance (LTCI) Mortality and Lapse Study

- [Study Released November 2021](#)
- Developed by the Long-Term Care Valuation Work Group of the American Academy of Actuaries and the Society of Actuaries Research Institute



Requests of the LTC Valuation Work Group

- Develop a replacement mortality table for LTCI active life reserves
 - Based on the 2012 Individual Annuity Mortality Table
 - Recommend a margin for conservatism
- Develop a replacement lapse table
 - Recommend a margin for conservatism
- Consider developing tables for valuation on total lives basis as well as active lives basis



Mortality Valuation Tables

- Developed valuation mortality table
 - Mortality is select and ultimate; all previous valuation mortality tables have been aggregate
 - Optional factors are provided for marital status and risk class
 - Mortality tables are provided for both total lives and active lives (off-claim) exposures
 - Margin for valuation mortality tables is included
- Tables are included in the report as an Excel file



Data Source

- ❑ SOA/LIMRA LTC Voluntary Lapse and Mortality Experience Study
 - Comprised of experience data from 2000 through 2011 for 22 companies
- ❑ Selected the observation period 2008–2011 to reflect more recent trends
- ❑ Identified certain participating companies with relatively more accurate data submitted



Data Source

- Data from 10 companies (DEFN 2 in Report) satisfied the following conditions:
 - Deaths are separately identified from lapses
 - Unknown terminations are less than 25% of total terminations
 - Performed matching with Social Security death records within the previous three years from the date of submission.
 - DEFN 2 companies represent approximately 70% of the industry experience for the exposure period used

More Recent Experience Study

- Long-Term Care Intercompany Experience Study—Aggregate Database 2000–2016 Report published August 12, 2020
- Limitations:
 - Credible data for ages over attained age 80 by individual age from few companies that submitted directly to LIMRA
 - Data via MIB is aggregated for attained ages over 90 and LIMRA has grouped the data for ages 80-90



More Recent Experience Study

- Limitations Continued:
 - Not able to apply DEFN 2 filter used by the 2016 study. DEFN 2 filter provided a better determination of mortality v. lapse
 - Not able to do the same level of validation due to limitations of the data provided and length of time between the data submissions to MIB and when received at LIMRA (over 1 year)
 - Not able to calculate active life exposures; only total life mortality can be calculated
 - Only 6 of the original 10 DEFN companies participated in both studies



Conclusions

- ❑ 2016 study has more exposures (2012–2016)
- ❑ 2016 experience includes data for more recent period (2016 v. 2011)
- ❑ 2016 study has significant limitations that impact its use
- ❑ By including the DEFN 2 filter, the 2011 study is a much better data source than the 2016 source for purpose of creating a valuation mortality table
- ❑ Limitations of the 2016 study should be considered when designing future LTCI mortality experience studies that could be used to develop valuation mortality tables



Additional Information

Matthew Williams, JD, MA
Senior Policy Analyst, Health
American Academy of Actuaries
Email: williams@actuary.org
Phone: (202) 223-8196

