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Long-Term Care (LTC) Credibility Monograph Work Group

Update to NAIC LTC Actuarial Working Group

August 25, 2016

Warren Jones, MAAA, FSA, FCA



Agenda

- Review Purpose of monograph
- Summary of monograph



Purpose of Monograph

- To increase the awareness of the application of credibility procedures to LTCI-related work and the importance of applying them to that work;
- To provide information on current practice, relevant publications, and underlying theory that an actuary could reference to inform the application of credibility procedures to LTCI-related work;



Purpose of Monograph (cont.)

- To outline considerations for deciding on and applying credibility procedures to LTCI actuarial work, as well as presenting results; and
- To suggest next steps for advancing actuarial practice in this regard.



Summary of Monograph

Outline

- **Section I** provides background on the issue of credibility in LTCI
- **Section II** discusses misestimation and volatility risks
- **Section III** summarizes the history of credibility theory
- **Section IV** summarizes key considerations
- **Section V** discusses the potential impacts of using credibility procedures
- **Section VI** outlines next steps



Summary of Monograph (cont.)

Section I - Background

- Relevant ASOPs for LTCI credibility
- Relevant stakeholder perspectives



Summary of Monograph (cont.)

Section II - Misestimation and Volatility Risks

- Credibility and misestimation/volatility
- LTCI projection assumptions
 - Morbidity – incidence, continuance, utilization
 - Mortality – active, disabled
 - Lapse
 - Investment yield



Summary of Monograph (cont.)

Section II - Misestimation and Volatility Risks

- Application and impacts
 - Determination of original pricing
 - Determination of rate increases
 - Valuation projections
 - Appraisal of a business
 - Surplus capital



Summary of Monograph (cont.)

Section III – Credibility Theory

- History of credibility theory
- Credibility methods
 - Full credibility
 - Partial credibility
 - Limited fluctuation credibility
 - Greatest accuracy credibility
 - Application to LTCI



Summary of Monograph (cont.)

Section III – Credibility Theory

- Challenges and limitations
- Why credibility procedures are useful



Summary of Monograph (cont.)

Section IV – Key Considerations in the Selection of Credibility Procedures for LTCI

- Professional and regulatory sources
- Purpose and application
- Subject experience
- Related experience
- Full and partial credibility
- The Application of credibility theory to LTCI



Summary of Monograph (cont.)

Section V – Potential Impacts of Using Credibility Procedures

- Sensitivity testing
- Multi-scenario deterministic testing
- Stochastic testing



Summary of Monograph (cont.)

Section VI – Next Steps

- Developing a comprehensive summary of credibility theory with direct applicability to LTCI-related actuarial work
- Performing research in which differing credibility procedures, methods, and assumptions are tested on actual blocks of historical data



Summary of Monograph (cont.)

Appendix

- Relevant documentation
- Relevant ASOPs



Staff Contact Information

David N. Linn

Health Policy Analyst

American Academy of Actuaries

1850 M St., NW (Suite 300)

Washington, DC 20036

202-223-8196

linn@actuary.org

