

MEETING MATERIALS PACKET  
LIFE ACTUARIAL (A) TASK FORCE  
December 7-8, 2025  
NAIC FALL NATIONAL MEETING

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Draft date: 11/24/25

*2025 Fall National Meeting  
Hollywood, Florida*

## **LIFE ACTUARIAL (A) TASK FORCE**

Sunday, December 7, 2025

8:00 a.m. – 4:30 p.m.

Diplomat Convention Center—Atlantic Ballroom—Level 2

Monday, December 8, 2025

8:00 – 10:00 a.m.

Diplomat Convention Center—Atlantic Ballroom—Level 2

### **NAIC Member**

Cassie Brown, Chair  
Scott A. White, Vice Chair  
Mark Fowler  
Heather Carpenter  
Peter M. Fuimaono  
Ricardo Lara  
Jarod Kosky  
Ann Gillespie  
Holly W. Lambert  
Doug Ommen  
Vicki Schmidt  
Marie Grant  
Grace Arnold  
Angela L. Nelson  
Remedio C. Mafnas  
Eric Dunning  
Ned Gaines  
Justin Zimmerman  
Kaitlin Asrow  
Judith L. French  
Glen Mulready  
TK Keen  
Michael Humphreys  
Jon Pike

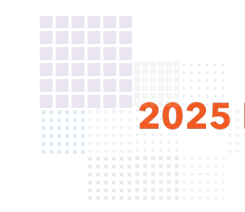
### **Representative**

Rachel Hemphill, Chair  
Craig Chupp, Vice Chair  
Sanjeev Chaudhuri  
Sharon Comstock  
Elizabeth Perri  
Ahmad Kamil  
Wanchin Chou  
Matt Cheung  
Scott Shover  
Mike Yanacheak  
Nicole Boyd  
Nour Benchaaboun  
Fred Andersen  
William Leung  
Charlette C. Borja  
Michael Muldoon  
Maile Campbell  
Seong-min Eom  
William B. Carmello  
Peter Weber  
Andy Schallhorn  
Tashia Sizemore  
Steve Boston  
Tomasz Serbinowski

### **State/Territory**

Texas  
Virginia  
Alabama  
Alaska  
American Samoa  
California  
Connecticut  
Illinois  
Indiana  
Iowa  
Kansas  
Maryland  
Minnesota  
Missouri  
N. Mariana Islands  
Nebraska  
Nevada  
New Jersey  
New York  
Ohio  
Oklahoma  
Oregon  
Pennsylvania  
Utah

NAIC Committee Support: Scott O’Neal/Jennifer Frasier

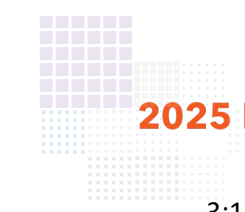


# 2025 NAIC FALL NATIONAL MEETING

## AGENDA

### Sunday, December 7, 2025

- |                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8:00 – 8:05 a.m.        | 1. Consider Adoption of its Minutes and Written Subgroup Reports<br>— <i>Rachel Hemphill (TX)</i>                                                                                                                                                                                                                                                                                                                                                                                                  |
| 8:05 – 9:15 a.m.        | 2. Discuss the Work of the Valuation Manual (VM)-22 (A) Subgroup and Longevity Risk (E/A) Subgroup<br>A. Discuss Comments on the Aggregation, Settlement Options, and Deposit-Type Contracts— <i>Ben Slutsker (MN)</i><br>B. Consider Adoption of the VM-22 (A) Subgroup Report<br>— <i>Ben Slutsker (MN)</i><br>C. Hear an Update on the Longevity Risk C-2 Proposal<br>— <i>Seong-min Eom (NJ)</i><br>D. Consider Adoption of the Longevity (E/A) Subgroup Report<br>— <i>Seong-min Eom (NJ)</i> |
| 9:15 – 9:30 a.m.        | Break                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 9:30 – 10:30 a.m.       | 3. Consider Adoption of the Experience Reporting (A) Subgroup Report, and Consider Exposure of Amendment Proposal Form (APF) 2024-12 Group Annuity Data Collection— <i>Fred Andersen (MN)</i> , <i>Seong-min Eom (NJ)</i> , <i>Pat Allison (NAIC)</i> , and <i>Angela McNabb (NAIC)</i>                                                                                                                                                                                                            |
| 10:30 a.m. – 12:00 p.m. | 4. Discuss the Work of the Generator of Economic Scenarios (GOES) (E/A) Subgroup— <i>Mike Yanacheak (IA)</i><br>A. Receive Comments on the GOES Model Governance Framework and Consider Adoption<br>B. Consider Adoption of the GOES (E/A) Subgroup Report                                                                                                                                                                                                                                         |
| 12:00 – 1:30 p.m.       | Lunch                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 1:30 – 2:15 p.m.        | 5. Receive an Update on <i>Actuarial Guideline LIII—Application of the Valuation Manual for Testing the Adequacy of Life Insurer Reserves (AG 53) Reports</i> — <i>Fred Andersen (MN)</i>                                                                                                                                                                                                                                                                                                          |
| 2:15 – 2:45 p.m.        | 6. Hear an Update on International Mortality— <i>R. Dale Hall (Society of Actuaries—SOA)</i>                                                                                                                                                                                                                                                                                                                                                                                                       |
| 2:45 – 3:15 p.m.        | 7. Consider Exposure of APF 2025-18 Pension Risk Transfer Reinvestment Guardrail— <i>Seong-min Eom (NJ)</i>                                                                                                                                                                                                                                                                                                                                                                                        |



## 2025 NAIC FALL NATIONAL MEETING

3:15 – 3:35 p.m.

8. Consider Exposure of APF 2025-16 *Valuation Manual* Reinvestment Guardrail—*Rachel Hemphill (TX)*

3:35 – 4:30 p.m.

9. Discuss In-Force Application of VM-22, Principle-Based Reserves for Non-Variable Annuities—*Ben Slutsker (MN)*

### Monday, December 8, 2025

8:00 – 8:20 a.m.

10. Hear an Update on SOA Research and Education  
—*R. Dale Hall (SOA)*

8:20 – 8:35 a.m.

11. Hear an Update from the American Academy of Actuaries (Academy) Council on Professionalism and Education—*Tricia Matson (Academy)*, *Kevin Dyke (Actuarial Standards Board—ASB)*, *Linda Lankowski (Counsel on Qualifications)*, and *William Hines (Actuarial Board for Counseling and Discipline—ABCD)*

8:35 – 8:50 a.m.

12. Hear an Update from the Academy Life Practice Council  
—*Amanda Barry-Moilanen (Academy)*

8:50 – 9:20 a.m.

13. Consider Exposure of APF 2025-17 (VM-20 Stochastic Reserve Aggregation Benefit)—*Rachel Hemphill (TX)*

9:20 – 9:35 a.m.

14. Receive an Update from the Insurance Compact—*Katie Campbell (Insurance Compact)*

9:35 – 10:00 a.m.

15. Discuss Any Other Matters Brought Before the Task Force—*Rachel Hemphill (TX)*

10:00 a.m.

Adjournment

Agenda Item 1

Consider Adoption of its Minutes  
and Written Subgroup Reports

Draft: 11/26/25

Life Actuarial (A) Task Force  
Virtual Meeting  
November 13, 2025

The Life Actuarial (A) Task Force met Nov. 13, 2025. The following Task Force members participated: Cassie Brown, Chair, represented by Rachel Hemphill (TX); Scott A. White, Vice Chair, represented by Craig Chupp (VA); Heather Carpenter represented by Sharon Comstock (AK); Mark Fowler represented by Sanjeev Chaudhuri (AL); Peter M. Fuimaono represented by Edward Lotulelei (AS); Ricardo Lara represented by Thomas Reedy (CA); Andrew N. Mais represented by Wanchin Chou (CT); Doug Ommen represented by Mike Yanacheak (IA); Ann Gillespie represented by Matt Cheung (IL); Holly W. Lambert represented by Scott Shover (IN); Vicki Schmidt represented by Nicole Boyd (KS); Marie Grant represented by Nour Benchaaboun (MD); Grace Arnold represented by Fred Andersen and Ben Slutsker (MN); Ned Gaines represented by Maile Campbell (NV); Justin Zimmerman represented by Seong-min Eom (NJ); Adrienne A. Harris represented by William B. Carmello (NY); Judith L. French represented by Peter Weber (OH); Glen Mulready represented by Kate Yang (OK); TK Keen represented by Joshua Blakey (OR); Michael Humphreys represented by Steve Boston (PA); and Jon Pike represented by Tomasz Serbinowski (UT).

1. Adopted Revisions to Actuarial Guideline 49-A

Colin Masterson (American Council of Life Insurers – ACLI) discussed the ACLI’s comment letter regarding *Actuarial Guideline XLIX-A—Application of the Life Illustrations Model Regulation to Policies with Indexed-Based Interest Sold On or After December 14, 2020* (AG 49-A). Masterson proposed: 1) a 5-year minimum period before historical returns can be shown to provide policyholders with critical information regarding the available indices available; and 2) changing multiple instances of “policies issued prior to April 1, 2026” to “policies sold prior to April 1, 2026” for consistency across AG 49-A. Slutsker supported changing the language to “policies sold prior to April 1, 2026” throughout AG 49-A and additionally proposed changing “an index first exceeds” to “an index first has”. He noted “exceeds” implies waiting till the start of the next year to illustrate historical performance while “has” dictates beginning illustrations on that specified year. Masterson and Brian Lessing (American Academy of Actuaries—Academy) supported Slutsker’s additional changes.

Slutsker continued discussion on the minimum required period since inception of an index until historical returns can appear on an illustration. Slutsker noted state insurance regulator concerns regarding indices being illustrated during years the indices even existed. Chupp, Yanacheak, Blakey, Benchaaboun supported a 10-year minimum period before historical data can be illustrated to align AG 49-A with *Annuity Disclosure Model Regulation (#245)* which uses 10-year minimum for indexed annuity illustrations. Yanacheak said that consumers often lack understanding of index construction and may misinterpret short-term performance, where a 10-year minimum would avoid misleading information.

Slutsker said that he preferred a 5-year minimum period before historical data can be illustrated, noting that shorter periods like one or two years could mislead consumers due to temporary spikes, while five years typically captures both favorable and unfavorable cycles without unnecessarily extending the timeframe. Hemphill acknowledged the argument for a ten-year period to capture a full business cycle but agreed with Slutsker’s reasoning for supporting a 5-year minimum and expressed concern that withholding historical returns when an index has existed 8 or 9 years could confuse consumers or lead consumers to seek data outside the illustration where they would not have the benefit of other required disclosures.

Slutsker made a motion, seconded by Blakey, to adopt revisions to AG 49-A (Attachment A) with the following edits: 1) using “policies sold” rather than “policies issued”; 2) using “has” rather than “exceeds”; and 3) using 10

years for the minimum period since index inception to allow illustration of historical returns. The motion passed unanimously.

## 2. Re-exposed APF 2023-10

Hemphill noted amendment proposal form (APF) 2023-10 had been put on hold during the development of the generator of economic scenarios (GOES) but was being considered again now that the GOES has been adopted into the 2026 *Valuation Manual*. Jon Heldmann (Academy) began walking through APF 2023-10, noting that: 1) with new GOES scenarios, very low or negative treasury rates may cause problems for reserve calculations in VM-20, Requirements for Principle-Based Reserves for Life Insurance when 105% of the 1-Year US Treasury rate is used; and 2) the Academy's review of the proceedings did not find concrete support for the use of 105% of the 1-Year US Treasury rate as the discount rate. Given those considerations, Heldmann said that APF 2023-13 replaced the 105% of the US Treasury discount rate with a net asset earned rate (NAER) for VM-20.

Hemphill noted that the NAER methodology for the deterministic reserve (DR) was different from the proposed NAER method for the stochastic reserve (SR) and asked why two distinct methodologies were needed. Dave Neve (Academy) commented that the intent was to provide flexibility regarding the net asset earned rate (NAER). Currently, the DR uses a discount rate based on the entire starting asset portfolio. By allowing a pro rata slice of the starting assets for the SR, companies could choose to apply the same NAER as the DR. Alternatively, Neve concluded, if a company prefers to use a different portfolio of additional assets, they could establish a separate NAER for the SR.

Chanho Lee (Academy) emphasized a fundamental difference between the NAER methodology used in the VM-20 DR and the proposed SR NAER that utilizes the additional asset portfolio. Lee said that the proposed SR NAER is calculated without incorporating liability cash flows of the products. Instead, it relates solely to the return of the additional supporting assets required to support the greatest present value of accumulated deficiencies (GPVAD) beyond the starting asset portfolio.

Cheung sought clarification on whether the additional asset portfolio includes any available starting assets for projections or if the slice must match the characteristics of additional supporting assets. Lee explained that under the current framework, the final scenario reserve at the valuation date equals the starting assets plus an additional liability, which corresponds to the GPVAD. To support this additional liability, companies must have additional assets available beyond the original starting portfolio. Lee concluded by stating that the additional invested asset portfolio is separate from the starting assets but should maintain the same characteristics as those assets to ensure consistency in methodology. Hemphill and Lee clarified there should be no double counting of assets in this process.

Weber made a motion, seconded by Chupp, to re-expose APF 2023-10 for a 70-day public comment period ending Jan. 21. The motion passed unanimously.

Having no further business, the Life Actuarial (A) Task Force adjourned.

SharePoint/NAIC Support Staff Hub/Member Meetings/A CMTE/LATF/2025-3-Summer/LATF Calls/11 13/Nov 13 Minutes.docx

Draft: 11/24/25

Life Actuarial (A) Task Force  
Virtual Meeting  
November 6, 2025

The Life Actuarial (A) Task Force met Nov. 6, 2025. The following Task Force members participated: Cassie Brown, Chair, represented by Rachel Hemphill (TX); Scott A. White, Vice Chair, represented by Craig Chupp (VA); Heather Carpenter represented by Sharon Comstock (AK); Mark Fowler represented by Sanjeev Chaudhuri (AL); Ricardo Lara represented by Thomas Reedy (CA); Andrew N. Mais represented by Wanchin Chou (CT); Doug Ommen represented by Mike Yanacheak (IA); Ann Gillespie represented by Matt Cheung (IL); Holly W. Lambert represented by Scott Shover (IN); Vicki Schmidt represented by Nicole Boyd (KS); Marie Grant represented by Nour Bouchaaboun (MD); Grace Arnold represented by Fred Andersen and Ben Slutsker (MN); Justin Zimmerman represented by Seong-min Eom (NJ); Ned Gaines represented by Maile Campbell (NV); Kaitlin Asrow represented by William B. Carmello (NY); Judith L. French represented by Peter Weber (OH); Glen Mulready represented by Kate Yang (OK); TK Keen represented by Tashia Sizemore and Joshua Blakey (OR); Michael Humphreys represented by Steve Boston (PA); and Jon Pike represented by Tomasz Serbinowski (UT).

1. Exposed APF 2025-15 (Credit Ratings Consistency)

Hemphill introduced amendment proposal form (APF) 2025-15, which would update the *Valuation Manual* to replace Table K with NAIC designation categories for credit rating mappings. Hemphill continued that the APF also introduces new guidance on credit rating mapping for residential mortgage loans by comparing the relationship of their risk-based capital (RBC) factors to those of commercial mortgage loans. Hemphill concluded by stating that APF 2025-15 clarifies that only tables that include the final factors (A, F, G, H, I, and J) used in calculations are published on the NAIC website to prevent companies from mistakenly applying interim steps. Those interim tables (B, C, D, and E) remain available upon request.

Chanho Lee (American Academy of Actuaries—Academy) asked if there was any data or rationale behind NAIC commercial mortgage designations CM6 and CM7 being mapped to principle-based reserve (PBR) credit rating 20. Hemphill clarified that the mapping is based on current practice, and she expected to receive comments on this matter.

Chupp made a motion, seconded by Cheung, to expose APF 2025-15 with Hemphill's suggested edits for a 60-day public comment period ending Jan. 21, 2026. The motion passed unanimously.

2. Adopted APF 2025-13 (Non-U.S. Mortality)

Hemphill stated that the Task Force would consider adoption of APF 2025-13, which clarifies documentation requirements for companies seeking approval of non-U.S. valuation mortality tables. Noting the robust discussion around whether non-U.S. business should be allowed, Hemphill said that she had received guidance from the Life Insurance and Annuities (A) Committee and NAIC legal staff that those types of discussions are out of scope for the work of the Task Force. She also said that further information around non-U.S. mortality tables would be presented by the Society of Actuaries (SOA) at the Task Force's session at the upcoming Fall National meeting.

Reedy made a motion, seconded by Chou, to adopt APF 2025-13 (Attachment A). The motion passed unanimously.

### 3. Adopted the Revised AG 55 Templates

Andersen walked through changes to the *Actuarial Guideline LV—Application of the Valuation Manual for Testing the Adequacy of Reserves Related to Certain Life Reinsurance Treaties* (AG 55) templates that had been made based on feedback from the American Council of Life Insurers (ACLI). Andersen said that: 1) additional language had been added to the “Asset Yields – Ceding” tab to indicate that ceding companies do not need to fill the tab out if the assuming company performs all of the reinvestments; and 2) the “Assumptions – Product 1” tab now states company assumptions need to be provided only if they are different from ceding company assumptions and applicable to the analysis.

Andersen made a motion, seconded by Cheung, to adopt the AG 55 templates (Attachment B). The motion passed unanimously.

Having no further business, the Life Actuarial (A) Task Force adjourned.

SharePoint/NAIC Support Staff Hub/Member Meetings/A CMTE/LATF/2025-3-Summer/LATF Calls/11 06/Nov 6 Minutes.docx

Draft: 11/30/25

Life Actuarial (A) Task Force  
Virtual Meeting  
October 30, 2025

The Life Actuarial (A) Task Force met Oct. 30, 2025. The following Task Force members participated: Cassie Brown, Chair, represented by Rachel Hemphill (TX); Scott A. White, Vice Chair, represented by Craig Chupp (VA); Heather Carpenter represented by Sharon Comstock (AK); Mark Fowler represented by Sanjeev Chaudhuri (AL); Peter M. Fuimaono represented by Edward Lotulelei (AS); Ricardo Lara represented by Ahmad Kamil (CA); Andrew N. Mais represented by Wanchin Chou (CT); Doug Ommen represented by Mike Yanacheak (IA); Ann Gillespie represented by Matt Cheung (IL); Holly W. Lambert represented by Scott Shover (IN); Marie Grant represented by Nour Benchaaboun (MD); Grace Arnold represented by Fred Andersen and Ben Slutsker (MN); Eric Dunning represented by Michael Muldoon (NE); Justin Zimmerman represented by Seong-min Eom (NJ); Adrienne A. Harris represented by William B. Carmello (NY); Judith L. French represented by Peter Weber (OH); TK Keen represented by Tashia Sizemore and Joshua Blakey (OR); Michael Humphreys represented by Steve Boston (PA); and Jon Pike represented by Tomasz Serbinowski (UT).

1. Re-Exposed Revisions to Actuarial Guideline 49-A

Slutsker introduced the latest revisions to *Actuarial Guideline XLIX-A—Application of the Life Illustrations Model Regulation to Policies with Index-Based Interest Sold On or After December 14, 2020* (AG 49-A) that had incorporated feedback from interested parties. The updates included: 1) adding the word “annualized” when referring to both historical and illustrated index crediting rates; 2) clarifying that the requirements do not prohibit showing the rates calculated in Section 4.B.i in the basic or supplemental illustration; and 3) adding a statement that indicated that historical returns shown in illustrations may not be indicative of future results. Brian Lessing (American Academy of Actuaries—Academy) spoke to the Academy’s comment letter; noting tradeoffs in setting a minimum historical period since index inception to allow illustration and supporting the inclusion of additional language indicating how past performance may not be indicative of future results.

Brian Bayerle (American Council of Life Insurers—ACLI) said that the edits to AG 49-A were reflective of the ACLI’s comments. Bayerle then noted that he had received a question from an ACLI member regarding mandatory illustration of an index once it reaches the minimum historical period and suggested a future edit to the language to allow 90 days after a minimum historical period is reached to implement the index illustration. Hemphill suggested that this could be a verbal edit to include in the re-exposure. Benchaaboun noted his support for the Academy’s suggestion to add a statement that historical returns are not necessarily indicative of future results but suggested using the word “returns” instead of “results”.

Serbinowski raised concerns with the utilization of historical index performance in illustrations, noting that the parameters of the index crediting could be very different depending on the strategy of the company and the economic environment which could make the illustration using historical performance misleading. Yanacheak agreed with concerns around using historical index performance and suggested looking into an illustration approach similar to what is done for variable annuities. Kim O’Brien (Federation for Americans for Consumer Choice) asked for flexibility for insurance carriers to be allowed to use the revisions to AG49-A prior to the April 1, 2026, effective date. Blakey questioned the necessity of O’Brien’s suggested revision given that the language states that the new disclosures are required “on or after April 1, 2026” but do not prohibit the additional disclosures. After hearing Blakey’s comment, O’Brien agreed that the current language addressed her concern.

Slutsker made a motion, seconded by Benchaaboun, to expose the revisions to AG 49-A with the ACLI's and Benchaaboun's suggested edits for a 13-day public comment period ending Nov. 11. The motion passed unanimously.

Having no further business, the Life Actuarial (A) Task Force adjourned.

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Draft: 11/18/25

Life Actuarial (A) Task Force  
Virtual Meeting  
October 23, 2025

The Life Actuarial (A) Task Force met Oct. 23, 2025. The following Task Force members participated: Cassie Brown, Chair, represented by Rachel Hemphill (TX); Scott A. White, Vice Chair, represented by Craig Chupp (VA); Heather Carpenter represented by Sharon Comstock (AK); Peter M. Fuimaono represented by Elizabeth Perri (AS); Ricardo Lara represented by Ahmad Kamil (CA); Andrew N. Mais represented by Wanchin Chou (CT); Doug Ommen represented by Mike Yanacheak (IA); Ann Gillespie represented by Matt Cheung (IL); Holly W. Lambert represented by Scott Shover (IN); Vicki Schmidt represented by Nicole Boyd (KS); Marie Grant represented by Nour Benchaaboun (MD); Grace Arnold represented by Fred Andersen and Ben Slutsker (MN); Angela L. Nelson represented by William Leung (MO); Eric Dunning represented by Michael Muldoon (NE); Justin Zimmerman represented by Seong-min Eom (NJ); Kaitlin Asrow represented by William B. Carmello (NY); Judith L. French represented by Peter Weber (OH); TK Keen represented by Tashia Sizemore and Joshua Blakey (OR); and Michael Humphreys represented by Steve Boston (PA).

1. Adopted its 2026 Proposed Charges

Hemphill walked through the Task Force's 2026 proposed charges and noted that the Life and Annuity Illustrations (A) Subgroup had been removed. Hemphill said that the Life Insurance and Annuities (A) Committee will consider forming a group focused on illustrations that would be able to consider a broader scope beyond actuarial considerations.

Chupp made a motion, seconded by Leung, to adopt the Task Force's 2026 charges (Attachment A). The motion passed unanimously.

2. Re-Exposed AG 55 Reporting Templates

Andersen walked through updates to the draft templates for *Actuarial Guideline LV—Application of the Valuation Manual for Testing the Adequacy of Reserves Related to Certain Life Reinsurance Treaties* (AG 55) reporting that had been made based on feedback from interested parties. Andersen noted the following changes: 1) instructions were added on the "Company Info and Instructions" tab; 2) reserve basis was added as one of the rows in the "Risk Identification" tab; 3) information was added noting that the "Counterparty Portfolio" tab only needed to be filled out if the assets were significantly different than the ceding company's *Actuarial Guideline LIII—Application of the Valuation Manual for Testing the Adequacy of Life Insurer Reserves* (AG 53) report; and 4) information was added that could be copied and pasted from AG 53 reports, if applicable, for the "Asset Yields – Ceding and Asset Yields – Assuming" tabs.

Andersen addressed a comment received from Peter Gould (Retired Annuity Consumer) on whether the AG 55 templates could be made public, explaining that the information within the reports was confidential under the *Standard Valuation Law* (#820) and the *Valuation Manual*. However, Andersen said that aggregate findings from AG 55 reporting could be discussed at public meetings.

Andersen made a motion, seconded by Cheung, to expose the AG 55 templates for a 14-day public comment period ending Nov. 5. The motion passed unanimously.

SharePoint/NAIC Support Staff Hub/Member Meetings/A CMTE/LATF/2025-3-Summer/LATF Calls/10 23/Oct 23 Minutes.docx

Draft: 11/17/25

Life Actuarial (A) Task Force  
Virtual Meeting  
October 2, 2025

The Life Actuarial (A) Task Force met Oct. 2, 2025. The following Task Force members participated: Cassie Brown, Chair, represented by Rachel Hemphill (TX); Scott A. White, Vice Chair, represented by Craig Chupp (VA); Heather Carpenter represented by Sharon Comstock (AK); Mark Fowler represented by Sanjeev Chaudhuri (AL); Peter M. Fuimaono represented by Edward Lotulelei (AS); Ricardo Lara represented by Ahmad Kamil (CA); Andrew N. Mais represented by Wanchin Chou (CT); Doug Ommen represented by Mike Yanacheak (IA); Ann Gillespie represented by Matt Cheung (IL); Angela L. Nelson represented by William Leung (MO); Marie Grant represented by Nour Benchaaboun (MD); Grace Arnold represented by Fred Andersen and Ben Slutsker (MN); Justin Zimmerman represented by Seong-min Eom (NJ); Adrienne A. Harris represented by William B. Carmello (NY); Judith L. French represented by Peter Weber (OH); TK Keen represented by Tashia Sizemore (OR); Michael Humphreys represented by Steve Boston (PA); and Jon Pike represented by Tomasz Serbinowski (UT).

1. Adopted the 2026 GREs

Chupp made a motion, seconded by Cheung, to adopt the 2026 Generally Recognized Expense Tables (GREs) (Attachment A). The motion passed unanimously.

2. Adopted APF 2025-05 (Contractually Guaranteed Revenue Sharing)

Hemphill introduced amendment proposal form (APF) 2025-05, which would add a guidance note to provide clearer definitions of what constitutes “guaranteed revenue sharing income” in Valuation Manual (VM)-20, Requirements for Principle-Based Reserves for Life Insurance, and VM-21, Requirements for Principle-Based Reserves for Variable Annuities.

Brian Bayerle (American Council of Life Insurers—ACLI) recommended striking “explicitly” from “explicitly modeled at such level of granularity” from VM-20, Section 9.G.8. Bayerle emphasized that the inclusion of the word could suggest that modeling simplifications would not be allowed. Hemphill declined the revision because the *Valuation Manual* is written to allow for simplifications, approximations, and modeling efficiency techniques subject to certain requirements.

Chupp made a motion, seconded by Kamil, to adopt the APF 2025-05 (Attachment B). The motion passed unanimously.

3. Exposed its 2026 Proposed Charges

Hemphill discussed the Task Force’s proposed 2026 charges, noting that the main changes resulted from the adoption of VM-22, Principle-Based Reserve Requirements for Non-Variable Annuities, and a revised focus for the VM-22 (A) Subgroup. Serbinowski asked whether the approval of international mortality tables should be included in the proposed charges. Hemphill pointed to the Task Force’s charge 1.A. as likely covering the potential approval of international mortality tables and noted that requests may be made during the exposure.

Kim O’Brien (Federation of Americans for Consumer Choice—FACC) questioned the lack of specifics under the Life and Annuity Illustration (A) Subgroup’s charges. Hemphill pointed out that work was currently being done to assess illustration practice and determine whether changes needed to be made. Andersen added that there may

be actuarial and non-actuarial aspects of the Subgroup, where specific charges would come from NAIC leadership or a parent committee.

Hemphill exposed the Task Force's 2026 proposed charges for a 10-day public comment period ending Oct. 13.

#### 4. Exposed APF 2025-13 (Non-US Mortality Documentation Requirements)

Hemphill walked through APF 2025-13, which requires additional documentation for the Task Force to consider the adoption of international tables. These materials include: 1) valuation results illustrating differences between the use of a U.S. mortality table and the requested international mortality table; 2) robust support for adjustment factors for lower mortality levels; 3) actual to expected analysis; 4) narrative discussion about why mortality is different in the local jurisdiction; and 5) copies of external studies or publications to support non-U.S. tables. Hemphill said that APF 2025-13 also includes a June 1 deadline for requests and documentation support.

Serbinowski asked whether the Task Force would approve an industry-wide international table or the use of an international table for a specific company. Hemphill clarified that, for instance, the Task Force could potentially approve the Canadian Institute of Actuaries (CIA) table for Canadian business, and note that all companies would then be able to use it. She added that any multiplicative scalars would be more likely to be approved for a specific company if approved, to the extent they represent a specific geographic subset of the overall population that may not apply to other insurers. Additionally, Hemphill stated that the Task Force would look to the Society of Actuaries (SOA) to provide information on non-U.S. mortality tables and mortality improvement studies.

Serbinowski then asked whether a company should be required to consistently apply international tables for other non-U.S. blocks of business if it used an international mortality table for one block of non-U.S. business. Hemphill stated that a company cannot just pick between international and U.S. tables, selecting the most favorable for different non-U.S. blocks of business.

Eric Holt (Globe Life) requested clarification on whether it is a requirement for companies with non-U.S. business to use international mortality tables. Hemphill stated that for 2025, no non-U.S. tables were approved, and companies will continue to use U.S. mortality tables, applying any upward adjustments needed based on the comparison to anticipated mortality required by VM-20 Section 3.C.1.g. However, for future years, Hemphill said that companies are required to submit non-U.S. mortality tables for approval by the Task Force.

Serbinowski questioned whether a June 1 submission deadline allows enough time for consideration by the Task Force before approval deadline of September. Linda Lankowski (Reinsurance Group of America—RGA) and Holt noted that any submission requirements before June 1 would be challenging, given other company efforts with VM-20 reporting. Lankowski suggested adding that the Task Force approve international mortality tables by a deadline of Sept. 30. Hemphill agreed to add the Sept. 30 deadline to APF 2025-13.

Leung made a motion, seconded by Chupp, to expose APF 2025-13 with Lankowski's suggested edits for a 21-day public comment period ending Oct. 22. The motion passed unanimously.

Having no further business, the Life Actuarial (A) Task Force adjourned.

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Draft: 11/6/25

Life Actuarial (A) Task Force  
Virtual Meeting  
September 25, 2025

The Life Actuarial (A) Task Force met Sept. 25, 2025. The following Task Force members participated: Cassie Brown, Chair, represented by Rachel Hemphill (TX); Scott A. White, Vice Chair, represented by Craig Chupp (VA); Heather Carpenter represented by Sharon Comstock (AK); Ricardo Lara represented by Ahmad Kamil (CA); Andrew N. Mais represented by Wanchin Chou (CT); Doug Ommen represented by Mike Yanacheak (IA); Ann Gillespie represented by Matt Cheung (IL); Holly W. Lambert represented by Scott Shover (IN); Vicki Schmidt represented by Nicole Boyd (KS); Marie Grant represented by Nour Benchaaboun (MD); Grace Arnold represented by Fred Andersen and Ben Slutsker (MN); Angela L. Nelson represented by William Leung (MO); Justin Zimmerman represented by Seong-min Eom (NJ); Adrienne A. Harris represented by William B. Carmello (NY); Judith L. French represented by Peter Weber (OH); Glen Mulready represented by Andy Schallhorn (OK); TK Keen represented by Tashia Sizemore (OR); and Michael Humphreys represented by Steve Boston (PA).

1. Reported Regulator-Only Sessions

Hemphill reported that the Task Force met Aug. 10, Aug. 21, and Sept. 18 in regulator-to-regulator session pursuant to paragraph 3 (specific companies, entities, or individuals) of the NAIC Policy Statement on Open Meetings. Hemphill said that the Task Force meetings on Aug. 10 and Aug. 21 were to review confidential company submissions related to international mortality. During those meetings, Hemphill said that regulators determined that they would need more information to be able to make approval decisions on international mortality tables. Hemphill said that the meeting on Sept. 18 was to discuss state insurance regulator reviews of company illustration practices, and that no action was taken at that meeting.

2. Adopted its Summer National Meeting Minutes

Chupp made a motion, seconded by Leung, to adopt the Task Force's Aug 9–10 minutes (*see NAIC Proceedings – Summer 2025, Life Actuarial (A) Task Force*). The motion passed unanimously.

3. Exposed Revisions to AG 49-A

Slutsker went over revisions to *Actuarial Guideline XLIX-A—Application of the Life Illustrations Model Regulation to Policies with Interest-Based Interest Sold On or After December 14, 2020* (AG 49-A) that had been made based on feedback from commenters, including: 1) revising the definitions of “historical period” and “inception date” to better account for blended and composite indices; 2) clarifying that the benchmark index account may be a hypothetical benchmark index account; and 3) changing “annual” to “annualized” when referencing rates of indexed credits.

Brian Lessing (American Academy of Actuaries—Academy) and Brian Bayerle (American Council of Life Insurers—ACLI) agreed that their comments had been incorporated into the latest draft but noted that they would want to comment during a re-exposure on the minimum historical period since index inception allowed for illustration. Benchaaboun noted that the *Annuity Disclosure Model Regulation* (#245) required a minimum of 10 years of historical data to illustrate an index and said that the revisions to AG 49-A should be consistent. Bayerle pointed out that Model #245 was not widely adopted across NAIC member jurisdictions and thus is not a suitable benchmark for consistency.

Slutsker made a motion, seconded by Benchaaboun, to expose the revisions to AG 49-A for a 21-day public comment period ending Oct. 15. The motion passed unanimously.

#### 4. Exposed AG 55 Reporting Templates

Andersen walked through draft templates that could be used optionally for *Actuarial Guideline LV—Application of the Valuation Manual for Testing the Adequacy of Reserves Related to Certain Life Reinsurance Treaties* (AG 55) reporting. The templates include sections for companies to provide information on: 1) the company; 2) counterparties; 3) risk identification; 4) the composition of and return characteristics of the counterparty asset portfolios; 5) the composition of and return characteristics of the cedant's asset portfolio; 6) cash flow testing results; 7) attribution analyses between the pre-reinsurance reserve and the total reserve held after reinsurance; 8) assumptions for both the cedant and assuming company; and 9) margins included in the analysis.

Bayerle suggested that the instructions be made clear to indicate that not all of the tabs are relevant or appropriate to fill out, depending on the company's circumstances. He gave the example that not all companies will use the New York Seven (NY7) scenarios in their analysis.

Peter Gould (Retired Annuity Consumer) asked whether the counterparty portfolio information would be reflective of other requirements for better disclosure on bonds. Andersen replied that the new bond definitions would not likely have much of an impact on the AG 55 reporting, but that they would get a narrative description of the assets that would allow for an appropriate understanding of their characteristics.

Regarding the information provided on the "Asset Yields – Ceding" tab, Bayerle suggested that an indicator be added to let the reviewer know that the tab is consistent with what the company provided in its *Actuarial Guideline LII—Application of the Valuation Manual for Testing the Adequacy of Life Insurer Reserves* (AG 53) reporting. Bayerle also suggested adding another indicator in the "Cash Flow Testing" tab that would let the reviewer know when an alternative analysis to running the NY7 was performed. Andersen said that he would consider making those changes to the templates.

Andersen noted that he had heard feedback from the Academy indicating that the order of the steps taken in performing the attribution analysis mattered. He said he also heard from the ACLI that the categories currently provided in the template may not be appropriate for all companies. Bayerle said that the ACLI would provide more detailed feedback in a comment letter, but that additional flexibility might need to be added to the attribution analysis tabs.

Douglas Brown (Aviva) suggested adding a line that accounted for the difference between generally accepted accounting principles (GAAP) and statutory accounting. Cheung noted that for some companies, a single GAAP to statutory accounting line may be appropriate, but others may have to break it down into more detail.

Andersen made a motion, seconded by Leung, to expose the AG 55 templates for a 21-day public comment period ending Oct. 15. The motion passed unanimously.

Having no further business, the Life Actuarial (A) Task Force adjourned.

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November 24, 2025

**From:** Pete Weber, Chair  
The Variable Annuities Capital and Reserve (E/A) Subgroup

**To:** Rachel Hemphill, Chair  
The Life Actuarial (A) Task Force

**Subject:** The Report of the Variable Annuities Capital and Reserve (E/A) Subgroup (VACR SG) to the Life Actuarial (A) Task Force

The VACR SG met Oct. 31, 2025, in joint session with the Life Risk-Based Capital (E) Working Group, to discuss comments that were received on the exposure of the proposed changes to the C-3 Phase I/C-3 Phase II calculations and the life RBC instructions as well as discussing the proposed changes to be re-exposed and also discussed the proposed scope clarification on variable annuity contracts in the payout phase for both the *Valuation Manual* and the life RBC instructions.

The proposed changes to the C-3 Phase I/C-3 Phase II calculations and the life RBC instructions were re-exposed for a 60-day public comment period ending Jan. 5, 2026. The proposed scope clarification on variable annuity contracts in the payout phase for both the *Valuation Manual* and the life RBC instructions was exposed for a 28-day public comment period ending Dec. 1. Additionally, the proposed changes to the VM-21 supplement and instructions were adopted.

Draft: 11/17/25

Life Risk-Based Capital (E) Working Group  
and Variable Annuities Capital and Reserve (E/A) Subgroup  
Virtual Meeting  
October 31, 2025

The Life Risk-Based Capital (E) Working Group of the Capital Adequacy (E) Task met Oct. 31, 2025, in joint session with the Variable Annuities Capital and Reserve (E/A) Subgroup of the Life Risk-Based Capital (E) Working Group and Life Actuarial (A) Task Force. The following Working Group members participated: Philip Barlow, Chair (DC); Ben Slutsker, Vice Chair (MN); Sanjeev Chaudhuri (AL); Thomas Reedy (CA); Wanchin Chou (CT); Hannah Howard (FL); Mike Yanacheak (IA); Matt Cheung (IL); Michael Muldoon (NE); Jennifer Li (NH); Seong-min Eom (NJ); William B. Carmello (NY); Rachel Hemphill (TX); and Tomasz Serbinowski (UT). The following Subgroup members participated: Peter Weber, Chair (OH); Matt Cheung, Vice Chair (IL); Thomas Reedy (CA); Philip Barlow (DC); Ben Slutsker (MN); Seong-min Eom (NJ); William B. Carmello (NY); and Rachel Hemphill (TX).

1. Discussed Comments Received from the Academy

Rick Hayes (American Academy of Actuaries—Academy) spoke to the comment letter from the Academy (Attachment 1). He said the Academy seeks clarification on the rationale for excluding voluntary reserves, asset adequacy testing (AAT) reserves, and any additional standard projection amount (ASPA) from the calculation of capital. Additionally, he mentioned their recommendations and concerns with the use of stochastic equity returns in C-3 Phase I (C3PI) can be found in the comment letter.

2. Discussed Comments Received from the ACLI

Brian Bayerle (American Council of Life Insurers—ACLI) addressed the comment letter from the ACLI (Attachment 1). He said the ACLI recommends making as few changes as possible to the risk-based capital (RBC) framework in the near future. He then discussed the three cover questions in response to the intended re-exposure of the proposed changes to the RBC instructions for C3PI and C-3 Phase II (C3PII). The first one is to request for including considerations and languages for the conditional tail expectation (CTE) 95 level with a 25% scalar and the CTE 98 level with a 25% scalar, in addition to the proposed CTE 90 level without a scalar as outlined in the re-exposure draft. The second one is to request a disclosure on an ongoing basis for the sensitivity of the remaining two metrics when they are not selected. The last question is on potential alternative methodologies for reflecting voluntary reserves.

Additionally, Bayerle briefly discussed the rationale behind limiting changes and further discussed the three conceptual approaches regarding the CTE levels. He said the first approach could be holding capital at the CTE 95 level with a 25% scalar, which would retain an approximate level of the existing capital requirement under the current Academy Interest Rate Generator (AIRG) measure. This metric can go in as an interim step while more information is being gathered. The second approach would be to maintain a status quo as much as possible with the current framework at the CTE 98 level with a 25% scalar. The last conceptual approach could be to use the proposed CTE 90 level without a scalar. However, the ACLI expressed its concerns about the volatility in capital that this approach may create.

3. Discussed Comments Received from the Committee of Annuity Insurers

Daren Moreira (Eversheds Sutherland LLP) spoke to the comment letter from the Committee of Annuity Insurers (CAI) (Attachment 1). He said the comment letter echoes many of the same comments that were made by the

ACLI. The CAI recommends making changes to the C3 framework that are necessary to implement the generator of economic scenarios (GOES) while retaining the 25% scalar. The CAI also recommends decreasing the CTE level to CTE 95 to align with the adoption of GOES. As the GOES covers tail risks that are not captured by AIRG, a reduction from the current CTE 98 is appropriate. However, the CTE 90 level could result in significant capital volatility. Additionally, the CAI opposes excluding the asset adequacy reserves and voluntary reserves from the C3 capital calculation.

#### 4. Discussed Comments Received from New York Life and Northwestern Mutual Life Insurance Company

Erik Anderson (New York Life Insurance Company) spoke to the comment letter from New York Life Insurance Company and Northwestern Mutual Life Insurance Company (Attachment 1). He said they believe it is important that RBC requirements work in concert with reserves to avoid any double counting. They also want to ensure that the RBC requirements do not create any situations where actuaries are disincentivized from following sound reserving practices.

#### 5. Re-Exposed Proposed Changes to the RBC Instructions for C3PI and C3PII

Cheung began by walking through the proposed changes to the RBC instructions for C3PII, which are intended for re-exposure (Attachment 2). He said the proposal is structured in a way that allows voluntary reserves to be used to reduce the C3PII capital amount, where a multiplier of one-third, which is based on the NAIC model office results, is applied to the voluntary reserves. Cheung said regulators would like to hear feedback on whether one-third is considered appropriate for companies with different business mixes. Additionally, he noted that the voluntary reserve has been better defined in the proposal.

Cheung continued to discuss the proposed changes to the RBC instructions for C3PI. He said the asset adequacy reserves and voluntary reserves can be included as part of the starting assets if they are set at a moderately adverse level and can be shown to be directly attributable to the C3PI business.

He said the net asset earned rate is provided as an option that can be used for discounting when calculating the C3PI capital. Slutsker commented that it would be hard to contemplate a direct iteration approach because C3PI targets the surplus, rather than the assets that can be solved for.

Eom suggested maintaining the current approach for C3PII, while providing certain disclosure items for comparison purposes. As the GOES field test results do not show all the impact from its implementation, she wants to monitor the impact for a few years before making any changes.

Rhonda Ahrens (Thrivent Financial) commented on the impact on the C3PI capital due to flooring. Slutsker said he would like to hear more feedback on this.

Barlow and Weber jointly re-exposed the proposed changes to the RBC instructions for C3PI and C3PII, together with the cover questions raised by the ACLI, for a 60-day public comment period ending Jan. 5, 2026.

#### 6. Adopted Proposed Changes to VM-21 Supplement Blank and Instructions

Weber walked through the proposed changes to *Valuation Manual* (VM)-21 supplement blank and instructions. Cheung made a motion, seconded by Eom, to adopt the proposed changes (Attachment 4). The motion passed unanimously.

#### 7. Exposed APF 2025-14 and RBC Proposal 2025-17-L

Cheung walked through the proposed scope clarification for VM-21 and life RBC (Attachment 5). He said there is a diversity of practice regarding how to reserve for payout annuities that result from variable annuities (VA). Clarification is provided in Subsection 2 of the *Valuation Manual* Section II. VA contracts in the payout phase, regardless of how they are administered, can be reserved under VM-21 with the approval of the domiciliary commissioner. Additionally, he said that ASPA would apply if payout contracts are reserved under VM-21. Accordingly, C3PI for RBC would not apply to them. Clarification is also provided for life RBC.

Barlow and Weber jointly exposed APF 2025-14 and RBC proposal 2025-17-L for a 28-day public comment period ending Dec. 1.

#### 8. Presented C3PII Analysis

Scott O’Neal (NAIC) said Cheung, in the previous joint meeting, expressed his interest in seeing VA model office results that would be floored at the cash surrender value and reflect a blending of the best efforts and adjusted results assuming an error factor of 10%. In response, he presented the C3PII analysis on this basis for three archetypes of VA products (Attachment 6).

Having no further business, the Life Risk-Based Capital (E) Working Group and the Variable Annuities Capital and Reserve (E/A) Subgroup adjourned.

SharePoint/NAIC Support Staff Hub/Member Meetings/A CMTE/LATF/2025-3 Fall/VACR SG/10 31 Joint LRBC WG VACR SG/1031 Joint LRBC VACR Minutes.docx

## Agenda Item 2

Discuss the Work of the Valuation Manual  
(VM)-22 (A) Subgroup and Longevity Risk  
(E/A) Subgroup

December 7, 2025

**From:** Ben Slutsker, Chairperson  
Elaine Lam, Vice Chairperson  
The VM-22 (A) Subgroup

**To:** Rachel Hemphill, Chair  
The Life Actuarial (A) Task Force

**Subject:** The Report of the VM-22 (A) Subgroup to the Life Actuarial (A) Task Force

The VM-22 Principles-Based Reserves (PBR) framework was adopted at the NAIC Summer National Meeting, effective for applicable non-variable annuity contracts issued on 1/1/2026 or later, with a three year optional implementation period up until 1/1/2029.

Since the adoption of VM-22, the NAIC VM-22 (A) Subgroup has also adopted an amendment to require the following:

- Disclosure of an attribution analysis between the Stochastic Reserve and Standard Projection Amount, and
- Including the Additional Standard Projection Amount (ASPA) in the PBR reserve calculation if there is a lack of credible data supporting actuarial assumptions.

In addition, there have been exposures on the topics of aggregation, settlement options, and deposit-type contracts. Comments received on these exposures will be discussed by the Life Actuarial (A) Task Force (LATF) at the NAIC Fall National Meeting.

The Subgroup has also held five regulator-only calls over the past two months, pursuant to paragraph 3 of the NAIC Policy Statement on Open Meetings (specific companies, entities or individuals), to discuss company-specific results and perspectives on potential VM-22 application to non-variable annuity contracts currently in force. A variety of views and possible decision points have been presented on this topic, with further conversation to take place during LATF at the NAIC Fall National Meeting. In addition, LATF also plans to discuss whether to revisit the reinvestment guardrail in the VM-22 PBR calculation for pension risk transfer business during the NAIC Fall National Meeting. Both topics are expected to continue being discussed in 2026.

Draft: 10/23/25

Valuation Manual (VM)-22 (A) Subgroup  
Virtual Meeting  
September 17, 2025

The VM-22 (A) Subgroup of the Life Actuarial (A) Task Force met Sept. 17, 2025. The following Subgroup members participated: Ben Slutsker, Chair (MN); Elaine Lam, Vice Chair (CA); Lei Rao-Knight (CT); Mike Yanacheak (IA); Matt Cheung (IL); William Leung (MO); Matthew Ryan (NY); Rachel Hemphill and Iris Huang (TX); Tomasz Serbinowski (UT); and Craig Chupp (VA).

1. Adopted APF 2025-12 (VM-22 SPA Disclosures and Credibility)

Slutsker introduced amendment proposal form (APF) 2025-12. On April 3, the Life Actuarial (A) Task Force made a referral to the Subgroup to address regulators' concerns regarding the VM-22, Requirements for Principle-Based Reserves standard projection amount (SPA). APF 2025-12 contains guidance to strengthen company assumptions or margins if an additional standard projection amount (ASPA) is indicated. Slutsker said the guidance states that the SPA is not a safe harbor, and companies should have robust support for the development of all company assumptions and margins.

Brian Bayerle (American Council of Life Insurers – ACLI) said the ACLI's edits were intended to clarify the intent of the APF.

Leung made a motion, seconded by Cheung, to adopt APF 2025-12, including the ACLI's proposed edits (Attachment A). The motion passed unanimously.

2. Exposed Questions on Aggregation, Settlement Options, and Deposit-Type Contracts

Slutsker said Attachment B in the meeting materials includes questions regarding whether aggregation across payout and accumulation categories should require eligibility criteria or just disclosure. He said Attachment C includes questions about settlement options for contracts issued before VM-22 principle-based reserving (PBR). Slutsker said Attachment D explores whether references to VM-22 and deposit-type contracts should be retained in VM Section II, Reserve Requirements, and VM-01, Definitions for Terms and Requirements. Slutsker invited suggestions for amendments.

Chueng said the definition of "host contracts" was broad and suggested asking for clarification in the exposure on the application to payout annuities emanating from variable and non-variable host contracts. He said responses to the type of edits may change based on the scope of host contracts. Slutsker agreed.

The Subgroup exposed all three attachments for a 60-day public comment period ending Nov. 17.

3. Discussed the Requirements for Calculating DR and SR

Clarification was requested regarding the requirements for calculating both deterministic reserves (DR) and stochastic reserves (SR) under VM-22, Section 4: Determination of the DR and SR.

Slutsker clarified that companies do not calculate both DR and SR for a single group of policies or contracts under VM-22. The SR is determined unless the stochastic exclusion test (SET) is passed. If the SET is passed, companies may choose to model those contracts in accordance with VM-22 PBR or value them using pre-PBR standards.

Contracts eligible for passing the single scenario test (SST) are limited in scope, and VM-22 specifies that some contracts are not eligible for the SST.

Having no further business, the VM-22 (A) Subgroup adjourned.

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November 18, 2025

Mr. Ben Slutsker, Chair  
Valuation Manual (VM)-22 (A) Subgroup, Life Actuarial (A) Task Force (LATF)  
National Association of Insurance Commissioners (NAIC)

Re: Chair Exposure regarding [VM-22 Aggregation](#)

Dear Chair Slutsker:

On behalf of the Annuity Reserves and Capital Subcommittee (ARCS) of the American Academy of Actuaries,<sup>1</sup> I appreciate the opportunity to comment on the recent chair exposure requesting discussion on the eligibility criteria and requirements for aggregation of the Payout Annuity and Accumulation Reserving Categories under VM-22 (Aggregation Exposure) and I am pleased to provide the following comments.

### **Response to Exposure Item 1**

In response to question one of the Aggregation Exposure, ARCS believes that aggregation of the Payout Annuity and Accumulation Reserving Categories is not appropriate in all circumstances and hence supports the imposition of certain criteria for companies to be permitted to aggregate these reserve categories when determining reserves under VM-22.

In particular, if a company does not jointly manage the investment decisions for the contracts within these two reserving categories together in the normal course of business, then we do not believe it would be appropriate to recognize any aggregation benefits in the reserve modeling, since such benefits may not be realized without a joint investment decision-making program.

Along similar lines, if a company does not jointly monitor and manage the risks associated with the contracts in these two reserve categories as part of an integrated risk management framework, then the company's ability to assess the reasonableness of the size and the level of certainty regarding any modeled aggregation benefits would, by definition, be limited, particularly for more extreme economic scenarios. Given this inherent uncertainty between modeled outcomes and reality, we do not believe it would be appropriate to reflect such aggregation benefits in the statutory reserves.

### **Response to Exposure Item 2**

In response to question two of the Aggregation Exposure, ARCS believes that the requirements for aggregation currently included in the 2026 Valuation Manual in Section 3.F.2 of VM-22 are necessary and sufficient to permit a company to aggregate these reserve categories.

A company's risk management and asset-liability management (ALM) practices are key tools used to make strategic and tactical decisions when managing the various blocks of business issued by the company. Aligning the level of aggregation used in the determination of the statutory reserves with the

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<sup>1</sup> The American Academy of Actuaries is a 20,000-member professional association whose mission is to serve the public and the U.S. actuarial profession. For 60 years, the Academy has assisted public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

company's internal processes is both appropriate and consistent with the principles outlined in Section 1 of VM-22.

Subject to the additional considerations provided in our response to exposure item 3 immediately below, ARCS supports proceeding with the aggregation requirements as currently drafted.

### **Response to Exposure Item 3**

In response to question three of the Aggregation Exposure, ARCS identified that individual views may vary as to what specific risk management and/or ALM strategies would meet the criteria for allowing aggregation in the current language. ARCS believes that determination of whether each company's specific facts and circumstances meet the criteria should be made by the qualified actuary responsible for the VM-31 Annuity Report in consultation with the company's leadership team responsible for the risk management and ALM programs, respectively. In addition, ARCS notes that the specific facts and circumstances related to each company's risk management and ALM practices may change over time and should be re-evaluated at least annually. Finally, ARCS believes the supporting rationale for the decision of whether to aggregate these reserve categories should be included in the VM-31 report.

To address these points, ARCS would propose amending the guidance note in Section 3.F.2 of VM-22 as follows:

**Guidance Note:** ~~For the purposes of aggregating payout and accumulation reserving categories, the Subgroup plans to revisit whether to include prerequisites to permit aggregation, as well as which criteria and disclosures to focus on for such aggregation.~~ For purposes of aggregating the Payout Annuity Reserving Category and the Accumulation Reserving Category, the determination of whether the company manages the risks of the contracts within both categories in an integrated risk management process and whether the contracts within both categories are managed within either a single portfolio or portfolios with the same ALM strategy, should be undertaken annually by the qualified actuary responsible for the Annuity Report in consultation with the company's chief risk officer, chief investment officer, or other leaders who are involved in developing and executing the risk management and ALM programs. While the specific items to be reviewed as supporting evidence in making this determination will vary by company based on the specific risk management and ALM programs employed, they may include items such as the company's risk appetite statement, risk inventory/risk register, risk management dashboards, risk tolerances, key risk indicators, risk management policies, investment management policies, asset/liability cashflow reports, portfolio reports, key rate duration reports, hedge effectiveness/hedge breakage reports, and any other management reports utilized by the company's senior management in making strategic and tactical risk management and portfolio management decisions. The key factors underlying this determination should be disclosed in an applicable section of the VM-31 report including, but not limited to, sections 3.F.6 a., 3.F.8.a., and 3.F.14.j.ii, and consistency with the risk management or investment strategy(ies) approved by Senior Management (as defined in VM-G) should be documented.

Thank you for your consideration of these comments. Please contact Amanda Barry-Moilanen ([barrymoilanen@actuary.org](mailto:barrymoilanen@actuary.org)), the Academy's policy project manager, life, with any questions on this comment letter.

Sincerely,  
Bruce Friedland, MAAA, FSA  
Chairperson, Annuity Reserves and Capital Subcommittee  
American Academy of Actuaries



November 26, 2025

Mr. Ben Slutsker, Chair  
Valuation Manual (VM)-22 (A) Subgroup, Life Actuarial (A) Task Force (LATF)  
National Association of Insurance Commissioners (NAIC)

Re: Chair Exposure regarding [VM-22 Deposit-Type Contracts](#)

Dear Chair Slutsker,

On behalf of the Annuity Reserves and Capital Subcommittee (“ARCS”) of the American Academy of Actuaries<sup>1</sup>, I appreciate the opportunity to comment on the recent chair exposure requesting discussion on the questions related to Deposit-Type Contracts (“Deposit-Type Contract Exposure”) and am pleased to provide the following comments.

### **Response to Exposure Item 1**

As it is our understanding that certain Deposit-Type contracts may be subject to VM-22 (see Exposure Items 2 and 3), we recommend retaining the reference to VM-22 in VM Section II, Subsection 3 Deposit-Type Contracts. This recommendation (along with others below) corrects for a circularity issue in the current VM, where VM Section II, Subsection 3 Deposit-Type Contracts requires VM-22 treatment “as applicable” and where the Scope section of VM-22 requires ‘applicable contracts in VM Section II, Subsection 3’ to be subject to VM-22 requirements.

### **Response to Exposure Item 2**

We recommend retaining the reference to Deposit-Type Contracts in the definition. While not strictly necessary to include the reference to “Deposit-Type Contracts”, we believe it is the appropriate classification and removes all doubt. Whereas VM-01 defines “Term Certain Payout Annuity” as offering “guaranteed periodic payments... not contingent upon mortality or morbidity of the annuitant” and whereas SSAP 50 Deposit-Type Contracts defines those contracts as “without any life or disability contingencies”, it is clear that these contracts are “Deposit-Type Contracts”.

### **Response to Exposure Item 3**

Operating under the assumption that the NAIC wishes to scope in Term Certain Payout Annuities to VM-22; while not currently scoping in other Deposit-Type contracts, we propose the following wording changes to VM-22:

#### **VM-22, Section 1.A:**

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<sup>1</sup> The American Academy of Actuaries is a 20,000+-member professional association whose mission is to serve the public and the U.S. actuarial profession. For 60 years, the Academy has assisted public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

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## Purpose

These requirements establish the minimum reserve valuation standard for non-variable annuity contracts as defined in Section II of the Valuation Manual, Subsection 2.C and for Deposit-Type Contracts falling under the scope of VM-22 Section 2.A. For all contracts encompassed by the Scope, these requirements constitute the Commissioners Annuity Reserve Valuation Method (CARVM) and, for some contracts and certificates, the Commissioners Reserve Valuation Method (CRVM).

## VM-22, Section 2.A:

### Scope

Applicable non-variable annuity contracts specified in VM Section II, Subsection 2 “Annuity Products”, Paragraphs C and D and applicable contracts in VM Section II, Subsection 3 “Deposit-Type Contracts” not otherwise excluded by VM Section II, Subsection 2.C are subject to VM-22 requirements.

For reference, Subsection 2.C reads:

Minimum reserve requirements for non-variable annuity contracts issued on 1/1/2026 and later are those requirements as found in VM-22, with the exception of Preneed Annuities, Guaranteed Investment Contracts, Synthetic Guaranteed Investment Contracts, Funding Agreements, and other Stable Value Contracts which shall follow the requirements found in VM-A, VM-C, and VM-V. *(Blue font to call out Deposit Type contracts for the purposes of this letter.. No change proposed to language or format of the VM)*

Thank you for your consideration of these comments. Please contact Amanda Barry-Moilanen ([barrymoilanen@actuary.org](mailto:barrymoilanen@actuary.org)), the Academy’s policy project manager, life, with any questions on this comment letter.

Sincerely,  
Bruce Friedland, MAAA, FSA  
Chairperson, Annuity Reserves and Capital Subcommittee  
American Academy of Actuaries



November 26, 2025

Mr. Ben Slutsker, Chair  
Valuation Manual (VM)-22 (A) Subgroup, Life Actuarial (A) Task Force (LATF)  
National Association of Insurance Commissioners (NAIC)

Re: Chair Exposure regarding [VM-22 Settlement Options](#)

Dear Chair Slutsker:

On behalf of the Annuity Reserves and Capital Subcommittee (Subcommittee) of the American Academy of Actuaries,<sup>1</sup> I appreciate the opportunity to comment on the recent chair exposure requesting discussion on the treatment of settlement options stemming from host contracts issued before the Valuation Manual (VM)-22 implementation date (Settlement Option Exposure), and am pleased to provide the following comments.

### **Response to Exposure Item 1**

The Subcommittee believes that settlement options should be subject to the pre-VM-22 tabular reserve calculations described in VM-A, VM-C, and VM-V or the post VM-22 requirements, as appropriate, at each company's option, based on their particular circumstances. The choice should be based on the company's specific facts and circumstances (e.g., an approach that aligns best with their actual risk management and investment management frameworks), subject to disclosure of the company's rationale for the decision. Once a decision is made for a particular block of business, each company should then remain consistent in its treatment for all future valuations.

Our recommendation stems from the fact that the most appropriate treatment could vary by company (or even by block) based on its particular facts and circumstances, as demonstrated by the following examples:

- 1.) Company A maintains a single asset segment and joint risk management framework for all of its payout annuity and settlement option contracts, regardless of the type of contract or election that generated the payment stream.

When the settlement option is elected or account value is depleted on the original contract, assets are transferred from the contract's original asset segment to the commingled payout and settlement option asset segment and reinvested in a manner to fund the annuity stream, regardless of the form of the original contract. The new contract also moves into the risk management framework the company uses for its payout annuity obligations.

For Company A, the date of issue of the original contract is of little relevance from a portfolio

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<sup>1</sup> The American Academy of Actuaries is a 20,000-member professional association whose mission is to serve the public and the U.S. actuarial profession. For 60 years, the Academy has assisted public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

and risk management perspective, the risks associated with the settlement option and its host contract were not managed jointly prior to annuitization, and we believe a principle-based valuation would best capture the risks to which Company A is exposed prospectively. Hence, Company A should be permitted to apply PBR once operationally capable of doing so.

- 2.) Company B maintains a single asset segment and a joint risk management framework under which its settlement option contracts are managed jointly with contracts still in the accumulation phase for both portfolio management and risk management purposes. When the settlement option is elected on the original contract, assets remain in the same segment as the original contract, and the same joint risk management processes continue to apply.

For Company B, no assets are disinvested or reinvested at the point at which a settlement option is elected. Instead, Company B makes portfolio-level investment and risk management decisions for contracts issued prior to the implementation of VM-22 based on its overall projected net cashflow stream and projected reserves, which are predicated on the settlement options being valued according to the pre-PBR discount rate requirements of VM-V. Company B is planning to create a *de novo* asset segment for its PBR business, which would not include host contracts issued prior to the implementation date of VM-22 PBR.

For Company B, it would be more appropriate to permit valuation of the settlement option benefits using the pre-PBR requirements of VM-V, since the investment and risk management decisions being made by Company B are aligned with and have anticipated continuation of the VM-A, VM-C, and VM-V requirements once the contract enters the payout phase.

As these two examples demonstrate, either VM-22's PBR requirements or the pre-PBR requirements could be appropriate for a given block of business or company. Hence, we support providing companies optionality in determining the most appropriate choice based on their factors and circumstances, subject to disclosure of the company's rationale for the decision. Once a decision is made for a particular block of business, each company should then remain consistent in its treatment for all future valuations, and companies shall discuss with domiciliary regulators if they wish to change their approach. We believe this optionality is consistent with existing statutory reserving precedent, including VM-V Section 1.A.3.a in the 2026 edition of the Valuation Manual.

Please note that, in forming its recommendation, the Subcommittee believes that the term "settlement options" in the Settlement Option Exposure should be expanded to include i.) the election of an annuitization option on a deferred annuity contract or a life insurance contract where proceeds have been elected to be received periodically as a life-contingent payout annuity or as an annuity certain, ii.) the annuitization of a host contract, iii.) a deferred annuity with a guaranteed living benefit where the account value has become depleted and guaranteed payments remain payable (an "on-claim guaranteed living benefit (GLB)"), and iv.) a contingent deferred annuity once the underlying contract funds are exhausted (an "on-claim CDA"). While the processes generating each of these are different, they are all in-scope for VM-22, and the relevant valuation considerations for each of these categories are analogous to those outlined above.

### **Response to Exposure Item 2**

Similar to our response on Exposure Item 1, the Subcommittee believes that companies should be given the option of electing whichever date aligns best with their actual risk management and investment management frameworks for each block of business subject to formulaic reserve requirements. For companies managing their investment portfolios and risk management for their blocks in an integrated manner across the contract's lifetime, using the host contract issue date could be more appropriate. In

contrast, for companies who manage their settlement options, annuitized contracts, and on-claim GLB's separately from their original contracts, it may be more appropriate to use the "premium determination date" as that term is currently defined in VM-V, since that date represents the date investment activity supporting the contractual payments is executed.

Given the potential for either date to be the more appropriate choice for a given block of business, the Subcommittee again recommends allowing each company to select the most appropriate choice based on the facts and circumstances for each block of business, subject to disclosure of the company's rationale for the decision. Once a decision is made for a particular block of business, each company should then remain consistent in its treatment for all future valuations of that block of business, and companies shall discuss with domiciliary regulators if they wish to change their approach. Again, we believe this optionality is consistent with existing statutory reserving precedent, including VM-V Section 1.A.3.a in the 2026 edition of the Valuation Manual.

### **Response to Exposure Item 3**

Subject to the suggested clarifications and edits provided in response to Exposure Item 4 below, the Subcommittee believes that the term "host contract" should be retained.

### **Response to Exposure Item 4**

We recommend the following text be used to replace the current text of the 2026 edition of VM Section II, Subsection 2.C (suggested edits by the Subcommittee are shown in track changes):

*Minimum reserve requirements for non-variable annuity contracts issued prior to 1/1/2026 are those requirements as found in VM-A, VM-C, and VM-V as applicable, with the exception of the minimum requirements for the valuation interest rate for single premium immediate annuity contracts, and other similar contracts, issued after Dec. 31, 2017, including those fixed payout annuities emanating from host contracts specified in VM-V Section 1.A.2.d, Section 1.A.2.e, Section 1.A.2.f, Section 1.A.2.g or Section 1.A.2.h, issued on or after Jan. 1, 2017, and on or before Dec. 31, 2017. The maximum valuation interest rate requirements for those contracts and fixed payout annuities are defined in VM-V, Statutory Maximum Valuation Interest Rates for Formulaic Reserves.*

*Minimum reserve requirements for non-variable annuity contracts issued ~~on~~ 1/1/2026 and later, excluding those contracts specified immediately below, are those requirements as found in VM-22, with the exception of Preneed Annuities, Guaranteed Investment Contracts, Synthetic Guaranteed Investment Contracts, Funding Agreements, and other Stable Value Contracts which shall follow the requirements found in VM-A, VM-C, and VM-V.*

*For the following types of contracts:*

- i.) the election of an annuitization option on a deferred annuity contract or a life insurance contract with a date of issue on or after Jan. 1, 2017, but before Jan 1, 2026, where proceeds have been elected to be received periodically as a life-contingent payout annuity or as an annuity certain on or after Jan. 1, 2026,*
- ii.) fixed payout annuities emanating from host contracts issued on or after Jan. 1, 2017, but before Jan 1, 2026, with a date of annuitization on or after Jan. 1, 2026,*

- iii.) fixed income payment streams attributable to contingent deferred annuities issued after Dec. 31, 2017, but before Jan 1, 2026, whose underlying contract funds are exhausted on or after Jan. 1, 2026,
- iv.) fixed income payment streams attributable to guaranteed living benefits associated with deferred annuity contracts issued after Dec. 31, 2017, but before Jan 1, 2026, and whose contract funds are exhausted on or after Jan. 1, 2026,

the minimum standard of valuation may be determined at the option of the company either:

- a.) according to the minimum reserve requirements found in VM-A, VM-C, and VM-V as applicable (including the maximum valuation interest rate requirements defined in VM-V

or

- b.) according to the requirements of VM-22.

Once ~~such a~~ decision is made for a particular block of business, each company should then remain consistent in its treatment for all future valuations, and companies shall discuss with domiciliary regulators if they wish to change their approach. ~~Minimum reserve requirements for fixed payout annuities resulting from the exercise of settlement options or annuitizations of host contracts, as well as fixed income payment streams attributable to guaranteed living benefits associated with deferred annuity contracts with guaranteed living benefits once the contract funds are exhausted, are those requirements as found in VM-22, with the exception that, with the permission of the domiciliary commissioner, the company may use the same maximum valuation interest rate used to value payment streams in accordance with the guidance applicable to the host contract. The minimum reserve requirements of VM-22 are considered PBR requirements for purposes of the Valuation Manual, and therefore are applicable to VM-G.~~

We also recommend adding a Guidance Note as follows:

**Guidance Note:** The purpose of the optionality for the items referenced in i.) through iv.) immediately above is to permit companies to select the approach to valuing settlement options, annuitizations, and annuities with exhausted fund values and remaining guaranteed payments in whichever manner is more consistent with their actual investment management approach and risk management program. The key factors underlying this determination should be disclosed in an applicable section of the VM-31 report including, but not limited to, sections 3.F.6 a. or 3.F.8.a., and consistency with the risk management or investment strategy(ies) approved by Senior Management (as defined in VM-G) should be documented.

Thank you for your consideration of these comments. Please contact Amanda Barry-Moilanen ([barrymoilanen@actuary.org](mailto:barrymoilanen@actuary.org)), the Academy's policy project manager, life, with any questions on this comment letter.

Sincerely,  
Bruce Friedland, MAAA, FSA  
Chairperson, Annuity Reserves and Capital Subcommittee  
American Academy of Actuaries



Brian Bayerle

Chief Life Actuary  
202-624-2169

Colin Masterson

Sr. Policy Analyst  
202-624-2463

November 18, 2025

Ben Slutsker  
Chair, NAIC Valuation Manual (VM)-22 (A) Subgroup (Subgroup)

Elaine Lam,  
Vice Chair, NAIC Valuation Manual (VM)-22 (A) Subgroup (Subgroup)

Re: The VM-22 September 2025 Exposures

Dear Chair Slutsker and Vice Chair Lam:

The American Council of Life Insurers (ACLI) appreciates the opportunity to comment on the NAIC VM-22 Subgroup's September 2025 exposures related to the topics of Aggregation, Settlement Options, and Deposit-Type Contracts.

Across all of the exposures, ACLI and our members would like to request that some flexibility be built into the "Day 2" VM-22 requirements, provided that domiciliary commissioner approval is granted and elections may not be changed. In line with other provisions within the Valuation Manual, this would provide companies with the ability to comply in a manner consistent with how they manage their business while also providing regulators with their desired levels of information.

More detailed feedback on the exposures themselves is presented below, organized by topic:

**Aggregation:**

- ACLI supports flexibility around aggregation and supports the development of appropriate disclosures around aggregation. The following are considerations for possible disclosures around aggregation:
  1. How the company manages the risks for each reserve category,
  2. Reserves for the Accumulation and Payout reserve categories before aggregation, and
  3. Explanation for what is driving the impact of aggregation.

**Settlement Option Treatment:**

- Settlement options are fixed income streams elected from death benefits or other contract elections such as surrenders or annuitizations. They are *often* infrequent, small, and managed operationally with the original host contract—such as life insurance, variable annuities, and GLCs.

American Council of Life Insurers | 300 New Jersey Avenue, NW, 10th Floor | Washington, DC 20001

The American Council of Life Insurers is the leading trade association driving public policy and advocacy on behalf of the life insurance industry. 90 million American families rely on the life insurance industry for financial protection and retirement security. ACLI's member companies are dedicated to protecting consumers' financial wellbeing through life insurance, annuities, retirement plans, long-term care insurance, disability income insurance, reinsurance, and dental, vision and other supplemental benefits. ACLI's 275 member companies represent 93 percent of industry assets in the United States.

Under the current CARVM framework, these can be reserved formulaically and separately without requiring integration into the company's fixed annuity models or systems.

- Under the new framework, all settlement options are to be reserved under VM-22 PBR. This may introduce significant operational complexity relative to their immaterial size and administrative structure, particularly when these blocks are not integrated into the company's fixed annuity valuation systems or asset segments.
- To address this, we recommend VM-22 explicitly permit the following options:
  1. Continue using CARVM for settlement options that are managed separately from the company's broader fixed annuity block or are immaterial in size or number of policies. The ACLI recommends allowing companies the option to base the valuation rate on either the issue date of the host contract or the issue date of the settlement option - in accordance with how the company manages settlement options, and provided they are consistent in their approach from year to year.
  2. Allow full VM-22 PBR for companies that choose to do so.
- This flexibility acknowledges that companies manage settlement options differently, aligns the framework with real-world administration, avoids disproportionate system burden, and maintains appropriate reserve integrity. These contracts are often so small that, in the absence of explicit guidance, companies may simply demonstrate immateriality to their domestic regulator - and continue using CARVM. Including this flexibility directly in the manual would help promote consistent treatment across the industry.

**Deposit-Type Contracts:**

- We recommend deposit-type contracts generally to be out of scope for VM-22 given the limited risks of these products. That said, inasmuch as they are managed with other VM-22 reserves, we think they should be allowed to be included.

Thank you for considering our comments and we look forward to further discussion on these topics soon at the Subgroup level.

Sincerely,

Handwritten signature of Colin Masterson in cursive script.

cc: Amy Fitzpatrick, NAIC

## VM-22 Deposit-Type Contract Exposure Questions Sep 17, 2025

1. VM Section II – In the 2026 Valuation Manual, VM-22 is mentioned in Subsection 3 of VM Section II (i.e., reserve requirements for “Deposit-Type Contracts”). Should the reference to VM-22 be retained or removed?

In our view, references to VM-22 within Subsection 3 of VM Section II **should be retained**. The absence of life contingencies should not necessarily disqualify a contract from Principle-Based Reserving, especially considering that the requirements and structures of VM-22 are meant to address interest rate/economic uncertainties, rather than mortality risk. If deposit-type contracts are excluded from VM-22, certain blocks of annuity products such as Structured Settlements or Single Premium Immediate Annuities would be divided between a principle-based approach and legacy approaches, despite there being little conceptual justification for doing so.

2. Annuity Certain Definition- In the 2026 Valuation Manual, Deposit-Type Contracts are mentioned in VM-01 under the definition of “Term Certain Payout Annuity”. Should the reference to “Deposit-Type Contracts” be retained or removed?

In our view, the reference to Deposit-Type Contracts in the definition of “Term Certain Payout Annuity” in VM-01 **should be retained**. Annuity contracts in payment status that are not contingent upon annuitant mortality are commonly considered to be Deposit-Type Contracts, which is consistent with SSAP50.

3. Amendments – Based on the responses to the above, do you have any proposed amendments to VM-22 (e.g., additional wording changes)?

Yes - VM Section II, Subsection 2 (reserve requirements for “Annuity Products”), Part C currently excludes Funding Agreements from the scope of PBR. In our view, the reference to “Funding Agreements” in this section should be removed, qualifying them for treatment under VM-22. Other than the magnitude of transacted amount, these contracts are substantively similar to other contracts that disburse payments without respect to life contingency. For the reasons noted above to include Deposit-Type Contracts within the scope of VM-22, it is our view that Funding Agreements would be most consistently reserved for under the VM-22 framework.

**Comment from: Joshua Liu**

**Exposure Question:**

3. VM Section II in VM-22 – Based on responses to the above questions, should the word “host contracts” (stemming from either variable or non-variable annuities) be retained or removed from VM Section II, Subsection 2.C, as shown below?

**Recommendation:**

Replace the term “host contracts” with “contracts”

**Rationale:**

- The term “host contracts” may create ambiguity, suggesting additional liability obligations are pending fulfillment.
- It is commonly used in FAS 133 contexts, such as FIA GAAP valuation, and may not be appropriate in the VM-22 context.
- Replacing it with “contracts” simplifies the section and aligns the language with the intended scope of VM-22, reducing potential confusion for practitioners.

## **TX DOI Comments on Aggregation**

### **1. Aggregation Eligibility Criteria vs. Disclosure-Only – Should aggregation of Payout and Accumulation annuity Reserving Categories include prerequisites to permit aggregation, as currently required in VM-22 within the 2026 Valuation Manual, or should the aggregation always be permitted, only including disclosures around such?**

There is no actuarial basis for disallowing aggregation. The current language, which is similar to VM-20 but adds an ALM restriction, seems like it would generally be interpreted by companies as allowing aggregation as long as the company's ERM function is not completely siloed for the different products and the company has a comprehensive ALM framework. This makes it a regulatory constraint without any target, and so it is just taking company time reporting and regulator time reviewing an item that does not rightly affect any companies. This takes up time that could be much better spent on material review items. Further, it could mislead a qualified actuary into believing they were required to be overly conservative by attempting to read the requirements as something more, thinking there wouldn't be a requirement stated that every company easily meets. This creates an unlevel playing field - one due to unclear requirements. Finally, we have to look at whether the restriction would even make sense if the risks of the contracts weren't managed on an integrated risk management process or were supported by portfolios that didn't have the same ALM strategy. Does this somehow mean two future economic scenarios can be realized at once, affecting the two different blocks? The actuarial principles are the same regardless. There can only be one future economic path. The company will benefit from the offsetting of risks in the future. Why would we only reflect that depending on how granularly they express their ALM strategies and whether they view ALM approaches as the *same* or just consistent?

In contrast, we are strongly supportive of separate payout and accumulation disclosures to help regulators understand period over period reserve movements.

### **2. Types of Criteria – What types of criteria should be listed for aggregating Payouts and Accumulation Reserving Categories (whether included as eligibility criteria or disclosure only)? See the current criteria listed in the VM-22 Section 3.F.2 excerpt below.**

Any restriction on aggregation should reflect situations under which the company would not realize the benefit of aggregation in the future or where the assets supporting one block would not be available to defease liabilities associated with the other block.

**3. Amendments – Do you have any proposed amendments to VM-22 or VM-31 (e.g., additional wording changes) regarding aggregation across Reserving Categories?**

VM-22 Section 3.F.2 should end with a period after “may be aggregated.” Consider adding “Aggregation is not permitted in situations under which the company would not realize the benefit of aggregation in the future or where the assets supporting one block would not be available to defease liabilities associated with the other block.” if an explicit requirement is needed, as this would be consistent with actuarial principles.

For VM-31, the current requirement is to disclose the aggregated results compared to a seriatim approach. There should be an interim level of disclosure, with payout and accumulation reported separately.

**Longevity Risk (E/A) Subgroup Exposure 10/16/25:**

*Exposed for 30-day comment period ending November 14, 2025.*

Please submit detailed proposals or any comments for approaches to developing Life Risk Based Capital Longevity Risk C-2 factor(s) for longevity reinsurance business. The Subgroup is seeking development of specific C-2 factor values with deep technical analysis.

Proposals should include as applicable to the approach:

- Detailed descriptions of how to calculate the value where the proposed C-2 factor will be applied, including how an offset credit for future surplus not included in calculated statutory reserves is reflected in the approach, if such descriptions are not provided in the proposal (e.g. present value of benefits, with an offset credit for future surplus not included in calculated statutory reserves, as proposed by American Council of Life Insurers or a principle-based TAR approach suggested by the American Academy of Actuaries) to be reported in a new line in LR025-A.
- A redline of LR025-A and the accompanying instructions to illustrate how the proposed approach would be reported. Add new lines and columns as applicable (see next three pages).
- For principle-based C-2 factors include a redline of LR025-A to show how the company should report the factor as well as how the final calculation of the longevity requirement amount should be performed since the factors will differ between longevity reinsurance and other in scope products.

Note: Other exhibits use LR025-A Lines 5, Column 2 values therefore any structural changes to LR025-A may require non-structural changes to the following:

- LR030, CALCULATION OF TAX EFFECT FOR LIFE AND FRATERNAL RISK-BASED CAPITAL – Line 138b Longevity C-2 Risk, Source column
- LR031, CALCULATION OF AUTHORIZED CONTROL LEVEL RISK-BASED CAPITAL – Line 48b Longevity Risk, Source column

|     |                                                                | <u>Annual Statement Source</u>                | <u>(1)</u><br><u>Statement Value</u> |   | <u>Factor</u> |   | <u>(2)</u><br><u>Requirement</u> |
|-----|----------------------------------------------------------------|-----------------------------------------------|--------------------------------------|---|---------------|---|----------------------------------|
|     | <u>Life Contingent Annuity Reserves</u>                        |                                               |                                      |   |               |   |                                  |
| (1) | General Account Life Contingent Annuity Reserves               | Exhibit 5 Column 2 Line 0299999, in part†     | \$0                                  |   |               |   |                                  |
| (2) | General Account Life Contingent Supplemental Contract Reserves | Exhibit 5 Column 2 Line 0399999, in part‡     | \$0                                  |   |               |   |                                  |
| (3) | General Account Life Contingent Miscellaneous Reserves         | Exhibit 5 Column 2 Line 0799999, in part‡     | \$0                                  |   |               |   |                                  |
| (4) | Separate Account (SA) Life Contingent Annuity Reserves         | S/A Exhibit 3 Column 2 Line 0299999, in part‡ | \$0                                  |   |               |   |                                  |
| (5) | Total Life Contingent Annuity Reserves                         | Lines (1) + (2) + (3) + (4)                   | \$0                                  | X | †             | = | \$0                              |
|     |                                                                |                                               | =====                                |   |               |   | =====                            |

† The tiered calculation is illustrated in the Longevity Risk section of the risk-based capital instructions.

‡ Include only the portion of reserves for products in scope per the instructions

Denotes items that must be manually entered on the filing software.

**LONGEVITY RISK**

## LR025-A

*Basis of Factors*

The factors chosen represent surplus needed to provide for claims in excess of reserves resulting from increased policyholder longevity calibrated to a 95<sup>th</sup> percentile level. For the purpose of this calibration aggregate reserves were assumed to provide for an 85<sup>th</sup> percentile outcome.

Longevity risk was considered over the entire lifetime of the policies since these annuity policies are generally not subject to repricing. Calibration of longevity risk considered both trend risk based on uncertainty in future population mortality improvements, as well as level or volatility risk which derives from misestimation of current population mortality rates or random fluctuations. Trend risk applies equally to all populations whereas level and volatility risk factors decrease with larger portfolios consistent with the law of large numbers.

Statutory reserve was chosen as the exposure base as a consistent measure of the economic exposure to increased longevity. Factors were also scaled by reserve level since number of insured policyholders is a less accessible measure of company specific volatility risk. Factors provided are pre-tax and were developed assuming a 21% tax adjustment would be subsequently applied.

*Specific Instructions for Application of the Formula*

Annual statement reference is for the total reserve for the products in scope. The scope includes annuity products with life contingent payments where benefits are to be distributed in the form of an annuity. The entire reserve amount for contracts in scope that include any life contingent payments are in scope. For example, under a certain-and-life style annuity, the entire reserve for both the certain payments and life contingent payments are in scope. Variable immediate annuity reserves under VM-21 are also in scope where there are life contingent payments. Scope does not include annuity products that are not life contingent, or deferred annuity products where the policyholder has a right but not an obligation to annuitize. A certain-and-life style annuity, where only certain payments remain (such as following the death of the annuitant), is out of scope. Variable deferred annuity contract reserves under VM-21 are out of scope,

including reserves valued under VM-21 for any contracts where policyholder account value has reached zero, but a lifetime benefit may still be payable by the insurer. Line (3) for General Account Life Contingent Miscellaneous reserves is included in the event there are any reserves for products in scope reported on Exhibit 5 line 0799999; it is not meant to include cash flow testing reserves reported on this line. Included in scope are:

- Single Premium Immediate Annuities (SPIA) and other payout annuities in pay status
- Deferred Income Annuities which will enter annuity pay status in the future
- Structured Settlements for annuitants with any life contingent benefits
- Group Annuities, such as those associated with pension liabilities with both immediate and deferred benefits

The total reserve exposure is then further broken down by size as in a tax table. This breakdown will not appear on the RBC filing software or on the printed copy, as the application of factors to reserves is completed automatically. The calculation is as follows:

| <u>Line (5)</u> | <u>Life Contingent Annuity Reserves</u> | (1)<br><u>Statement Value</u> | <u>Factor</u> | (2)<br><u>RBC Requirement</u> |
|-----------------|-----------------------------------------|-------------------------------|---------------|-------------------------------|
|                 | First 250 Million                       | _____                         | X 0.0171 =    | _____                         |
|                 | Next 250 Million                        | _____                         | X 0.0108 =    | _____                         |
|                 | Next 500 Million                        | _____                         | X 0.0095 =    | _____                         |
|                 | Over 1,000 Million                      | _____                         | X 0.0089 =    | _____                         |
|                 | Total Life Contingent Annuity Reserves  | =====                         |               | =====                         |

The amount ultimately included in the authorized control level will be subject to a guardrail factor of 0\_ and a correlation factor of -.25.

## NJ Proposal for Longevity Reinsurance C-2 Factor Development.

The proposed methodology is to develop the Life RBC C-2 Longevity Risk factor for Longevity Reinsurance, as the product of quantities Factor and Base, as defined below:

- **Factor** – A scalar factor (currently factors ranging from 5.0 to 9.607 are being considered, varying based on the size of the total reserves).
- **Base** – is set equal to the floor used in the PBR VM-22 reserve calculations (the floor is currently set equal to 2% of the benefits payable within the 12 months, following the valuation date).

### Notes:

1. Factor will be selected such that the product of Factor x Base will approximate the impact of the 95th percentile mortality and mortality improvement shock over the 85th percentile of mortality and mortality improvement shock, on an after-tax basis.
2. The rationale for selecting the statutory reserve floor as the base is that:
  - a. the reserves tend to start out very small (often at the reserve floor level referenced above), then grow substantially higher; while the impact of mortality and mortality deterioration tends to be proportional to liabilities only (not the reserves) and
  - b. as the block of business matures, this would be consistent with higher volatility of the runoff business (when the volumes become small) and lack of credible older age mortality data.
3. Once the Factor is set, it won't be updated unless there are material changes in the mortality level and mortality trend patterns, or longevity reinsurance market distribution (e.g., expansion of the longevity reinsurance market to other countries).

**Longevity Risk (E/A) Subgroup Exposure 10/16/25:**

*Exposed for 30-day comment period ending November 14, 2025.*

Please submit detailed proposals or any comments for approaches to developing Life Risk Based Capital Longevity Risk C-2 factor(s) for longevity reinsurance business. The Subgroup is seeking development of specific C-2 factor values with deep technical analysis.

Proposals should include as applicable to the approach:

- Detailed descriptions of how to calculate the value where the proposed C-2 factor will be applied, including how an offset credit for future surplus not included in calculated statutory reserves is reflected in the approach, if such descriptions are not provided in the proposal (e.g. present value of benefits, with an offset credit for future surplus not included in calculated statutory reserves, as proposed by American Council of Life Insurers or a principle-based TAR approach suggested by the American Academy of Actuaries) to be reported in a new line in LR025-A.
- A redline of LR025-A and the accompanying instructions to illustrate how the proposed approach would be reported. Add new lines and columns as applicable (see next three pages).
- For principle-based C-2 factors include a redline of LR025-A to show how the company should report the factor as well as how the final calculation of the longevity requirement amount should be performed since the factors will differ between longevity reinsurance and other in scope products.

Note: Other exhibits use LR025-A Lines 5, Column 2 values therefore any structural changes to LR025-A may require non-structural changes to the following:

- LR030, CALCULATION OF TAX EFFECT FOR LIFE AND FRATERNAL RISK-BASED CAPITAL – Line 138b Longevity C-2 Risk, Source column
- LR031, CALCULATION OF AUTHORIZED CONTROL LEVEL RISK-BASED CAPITAL – Line 48b Longevity Risk, Source column

|     |                                                                |                                               | (1)                    |   |               | (2)                |
|-----|----------------------------------------------------------------|-----------------------------------------------|------------------------|---|---------------|--------------------|
|     |                                                                | <u>Annual Statement Source</u>                | <u>Statement Value</u> |   | <u>Factor</u> | <u>Requirement</u> |
|     | <u>Life Contingent Annuity Reserves</u>                        |                                               |                        |   |               |                    |
| (1) | General Account Life Contingent Annuity Reserves               | Exhibit 5 Column 2 Line 0299999, in part†     | \$0                    |   |               |                    |
| (2) | General Account Life Contingent Supplemental Contract Reserves | Exhibit 5 Column 2 Line 0399999, in part†     | \$0                    |   |               |                    |
| (3) | General Account Life Contingent Miscellaneous Reserves         | Exhibit 5 Column 2 Line 0799999, in part†     | \$0                    |   |               |                    |
| (4) | Separate Account (SA) Life Contingent Annuity Reserves         | S/A Exhibit 3 Column 2 Line 0299999, in part† | \$0                    |   |               |                    |
| (5) | Total Life Contingent Annuity Reserves                         | Lines (1) + (2) + (3) + (4)                   | \$0                    | X | †             | = \$0              |
|     |                                                                |                                               | =====                  |   |               | =====              |

† The tiered calculation is illustrated in the Longevity Risk section of the risk-based capital instructions.

‡ Include only the portion of reserves for products in scope per the instructions

Denotes items that must be manually entered on the filing software.

**LONGEVITY RISK**

## LR025-A

*Basis of Factors*

The factors chosen represent surplus needed to provide for claims in excess of reserves resulting from increased policyholder longevity calibrated to a 95<sup>th</sup> percentile level. For the purpose of this calibration aggregate reserves were assumed to provide for an 85<sup>th</sup> percentile outcome.

Longevity risk was considered over the entire lifetime of the policies since these annuity policies are generally not subject to repricing. Calibration of longevity risk considered both trend risk based on uncertainty in future population mortality improvements, as well as level or volatility risk which derives from misestimation of current population mortality rates or random fluctuations. Trend risk applies equally to all populations whereas level and volatility risk factors decrease with larger portfolios consistent with the law of large numbers.

For non-Longevity Reinsurance products statutory reserve was chosen as the exposure base as a consistent measure of the economic exposure to increased longevity. For Longevity Reinsurance products statutory reserve floor (as defined in VM-22) was chosen as the exposure base which lines up with the economic exposure to increased longevity than VM-22 reserves. Factors were also scaled by reserve level since number of insured policyholders is a less accessible measure of company specific volatility risk. Factors provided are pre-tax and were developed assuming a 21% tax adjustment would be subsequently applied.

*Specific Instructions for Application of the Formula*

Annual statement reference is for the total reserve for the products in scope. The scope includes annuity products with life contingent payments where benefits are to be distributed in the form of an annuity. The entire reserve amount for contracts in scope that include any life contingent payments are in scope. For example, under a certain-and-life style annuity, the entire reserve for both the certain payments and life contingent payments are in scope. Variable immediate annuity reserves under VM-21 are also in scope where there

are life contingent payments. Scope does not include annuity products that are not life contingent, or deferred annuity products where the policyholder has a right but not an obligation to annuitize. A certain-and-life style annuity, where only certain payments remain (such as following the death of the annuitant), is out of scope. Variable deferred annuity contract reserves under VM-21 are out of scope, including reserves valued under VM-21 for any contracts where policyholder account value has reached zero, but a lifetime benefit may still be payable by the insurer. Line (3) for General Account Life Contingent Miscellaneous reserves is included in the event there are any reserves for products in scope reported on Exhibit 5 line 0799999; it is not meant to include cash flow testing reserves reported on this line. Included in scope are:

- Single Premium Immediate Annuities (SPIA) and other payout annuities in pay status
- Deferred Income Annuities which will enter annuity pay status in the future
- Structured Settlements for annuitants with any life contingent benefits
- Group Annuities, such as those associated with pension liabilities with both immediate and deferred benefits

The total reserve exposure is then further broken down by size as in a tax table. This breakdown will not appear on the RBC filing software or on the printed copy, as the application of factors to reserves is completed automatically. The calculation is as follows:

Non-Longevity Reinsurance products:

| <u>Line (5)</u> | <u>Life Contingent Annuity Reserves</u>       | <u>(1)</u><br><u>Statement Value</u> | <u>Factor</u>     | <u>(2)</u><br><u>RBC Requirement</u> |
|-----------------|-----------------------------------------------|--------------------------------------|-------------------|--------------------------------------|
|                 | <u>First 250 Million</u>                      | <u>                    </u>          | <u>X 0.0171 =</u> | <u>                    </u>          |
|                 | <u>Next 250 Million</u>                       | <u>                    </u>          | <u>X 0.0108 =</u> | <u>                    </u>          |
|                 | <u>Next 500 Million</u>                       | <u>                    </u>          | <u>X 0.0095 =</u> | <u>                    </u>          |
|                 | <u>Over 1,000 Million</u>                     | <u>                    </u>          | <u>X 0.0089 =</u> | <u>                    </u>          |
|                 | <u>Total Life Contingent Annuity Reserves</u> | <u>                    </u>          |                   | <u>                    </u>          |

Longevity Reinsurance products:

| <u>Line (5)</u> | <u>Life Contingent Annuity Reserves</u>    | (1)<br><u>Statement</u><br><u>Value VM-22</u><br><u>Reserve Floor</u> | <u>Factor</u>                     | (2)<br><u>RBC</u><br><u>Requirement</u> |
|-----------------|--------------------------------------------|-----------------------------------------------------------------------|-----------------------------------|-----------------------------------------|
|                 | First 250 Million <u>of Total Reserves</u> | _____                                                                 | X <u>9.607</u><br><u>0.0171</u> = | _____                                   |
|                 | Next 250 Million                           | _____                                                                 | X <u>6.067</u><br><u>0.0108</u> = | _____                                   |
|                 | Next 500 Million                           | _____                                                                 | X <u>5.337</u> <u>0.0095</u><br>= | _____                                   |
|                 | Over 1,000 Million                         | _____                                                                 | X <u>5</u> <u>0.0089</u> =        | _____                                   |
|                 | Total Life Contingent Annuity Reserves     | =====                                                                 |                                   | =====                                   |

The amount ultimately included in the authorized control level will be subject to a guardrail factor of 0\_ and a correlation factor of -.25.

November 14, 2025

Seong-min Eom, Chair,  
Longevity Risk (E/A) Subgroup  
National Association of Insurance Commissioners

Re: Request for Longevity Reinsurance C2 Proposal and LR025-A redline.docx

Dear Chair Eom:

On behalf of the Longevity Risk Task Force (the Task Force) of the American Academy of Actuaries,<sup>1</sup> I am sharing some feedback regarding a framework for the RBC C-2 charge for longevity reinsurance.

### **Product Background**

Longevity reinsurance transactions are structured agreements between ceding companies and assuming companies designed to transfer the risk associated with annuitants living longer than expected.

These contracts typically include fixed premiums and fees, based on a mortality basis specified in the contract. These fixed premiums and fees *do not vary* with the survival experience of annuitants. The longevity benefits (the “floating” leg) under these transactions, depend on the actual survival experience of the covered annuitants. As more annuitants live beyond projected life expectancies, the reinsurer’s obligation to pay benefits extends beyond original expectations.

For many of these contracts, the fixed premiums and fees are larger than the payable longevity benefits, especially in the early years of the contract. This sufficiency can result in a portion of the fixed premiums and fees not being recognized in reserves.

### **Academy’s Proposal**

Following up from the Academy’s letter sent on September 15, 2025, and reviewing the proposals from Minnesota, New Jersey, and the ACLI, the LRTF proposes a principle-based Total Asset Requirement (TAR) approach to determining the C-2 Longevity Reinsurance capital charge, which will be discussed below. Our proposal discusses two items, 1) structure of the capital charge and 2) calibration of longevity shock. Due to the tight timeframe, we prioritized the structure of the capital charge. We are unable to recommend a specific calibration of longevity shocks and will be happy to discuss calibration at a future date.

1. *Structure of the capital charge:* The LRTF recommends a principle-based approach where the total required assets (i.e., the TAR) required to support liabilities under an

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<sup>1</sup> The American Academy of Actuaries is a 20,000-member professional association whose mission is to serve the public and the U.S. actuarial profession. For more than 60 years, the Academy has assisted public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

appropriate stress scenario is determined, and the capital charge is calculated to be the excess of the TAR over the reserves, subject to a floor of zero.

We propose the following structure for a TAR-based framework:

- Project future premiums & reinsurance fees
  - Project future benefits and expenses using a mortality shock appropriately calibrated
  - Calculate TAR as present value of shocked future benefits and expenses minus present value of premiums & fees
  - C-2 for Longevity Reinsurance risk = maximum {TAR – Statutory Reserve, 0}
  - Companies would be required to perform this calculation on an annual basis to determine the capital amount
2. *Calibration of longevity risk shock:* An appropriate stress scenario should follow the same principles as the stresses developed for current C-2 Longevity. Those principles are 1) calibrating shocks to 95<sup>th</sup> percentile relative to 85<sup>th</sup> percentile (standard for reserves) and 2) independence of mortality improvement and mortality level shocks. Further analysis would be needed before providing any additional recommendations on matters including the appropriateness of applying the existing mortality improvement and mortality shocks to longevity reinsurance and/or whether these same shocks would or would not be appropriate for contracts covering non-U.S. lives.

If there are any questions or if the Subgroup would like to discuss these comments or the example further, please contact [Amanda Barry-Moilanen](mailto:barrymoilanen@actuary.org), the Academy's life policy project manager (barrymoilanen@actuary.org).

Sincerely,

Linda Lankowski, MAAA, FSA  
Chairperson, Longevity Risk Task Force  
American Academy of Actuaries



Brian Bayerle

Chief Life Actuary  
202-624-2169

Colin Masterson

Sr. Policy Analyst  
202-624-2463

November 17, 2025

Seong-min Eom  
Chair, NAIC Longevity Risk (E/A) Subgroup

Re: October 2025 Request for Longevity Reinsurance C-2 Proposal and LR025-A

Dear Chair Eom:

The American Council of Life Insurers (ACLI) appreciates the opportunity to provide additional commentary on the NAIC Longevity Risk (E/A) Subgroup's effort to develop Life Risk Based Capital Longevity Risk C-2 factor(s) for longevity reinsurance business. We would also like to take this time to thank regulators, NAIC staff, and other interested parties for the robust dialogue and proposals which have already been put forth and discussed at the October 9<sup>th</sup> Subgroup meeting.

As previously stated in our comments from September 15<sup>th</sup>, ACLI continues to support applying the C-2 factor to the present value of benefits, with an offset credit for future surplus not included in calculated statutory reserves. Specifically, our approach boils down to:

- C-2 capital =  $\text{Max}(0, A - B)$ , where
  - $A = \text{C-2 factor} * \text{PV Benefits (or floating leg)}$  (i.e., the Statement Value), and
  - $B = \text{PV Premiums} + \text{Fees (or fixed leg)}$  not already used for reserving purposes (i.e., the Offset Credit, which should also include investment and expense considerations).

Accompanying this comment letter, ACLI has provided redlined edits to LR025-A and an illustrative spreadsheet demonstrating the calculation. If there are any questions about the materials we provided, please do not hesitate to reach out to ACLI staff.

Thank you all once again and we look forward to additional discussion soon.

Sincerely,

 Colin Masterson

cc: Amy Fitzpatrick, NAIC

American Council of Life Insurers | 300 New Jersey Avenue, NW, 10th Floor | Washington, DC 20001

The American Council of Life Insurers is the leading trade association driving public policy and advocacy on behalf of the life insurance industry. 90 million American families rely on the life insurance industry for financial protection and retirement security. ACLI's member companies are dedicated to protecting consumers' financial wellbeing through life insurance, annuities, retirement plans, long-term care insurance, disability income insurance, reinsurance, and dental, vision and other supplemental benefits. ACLI's 275 member companies represent 93 percent of industry assets in the United States.

**Longevity Risk (E/A) Subgroup Exposure 10/16/25:**

*Exposed for 30-day comment period ending November 14, 2025.*

Please submit detailed proposals or any comments for approaches to developing Life Risk Based Capital Longevity Risk C-2 factor(s) for longevity reinsurance business. The Subgroup is seeking development of specific C-2 factor values with deep technical analysis.

Proposals should include as applicable to the approach:

- Detailed descriptions of how to calculate the value where the proposed C-2 factor will be applied, including how an offset credit for future surplus not included in calculated statutory reserves is reflected in the approach, if such descriptions are not provided in the proposal (e.g. present value of benefits, with an offset credit for future surplus not included in calculated statutory reserves, as proposed by American Council of Life Insurers or a principle-based TAR approach suggested by the American Academy of Actuaries) to be reported in a new line in LR025-A.
- A redline of LR025-A and the accompanying instructions to illustrate how the proposed approach would be reported. Add new lines and columns as applicable (see next three pages).
- For principle-based C-2 factors include a redline of LR025-A to show how the company should report the factor as well as how the final calculation of the longevity requirement amount should be performed since the factors will differ between longevity reinsurance and other in scope products.

Note: Other exhibits use LR025-A Lines 5, Column 2 values therefore any structural changes to LR025-A may require non-structural changes to the following:

- LR030, CALCULATION OF TAX EFFECT FOR LIFE AND FRATERNAL RISK-BASED CAPITAL – Line 138b Longevity C-2 Risk, Source column
- LR031, CALCULATION OF AUTHORIZED CONTROL LEVEL RISK-BASED CAPITAL – Line 48b Longevity Risk, Source column

|     |                                                                                                           |                                                          | (1)                    |               |     | (2)                |
|-----|-----------------------------------------------------------------------------------------------------------|----------------------------------------------------------|------------------------|---------------|-----|--------------------|
|     |                                                                                                           | <u>Annual Statement Source</u>                           | <u>Statement Value</u> | <u>Factor</u> |     | <u>Requirement</u> |
|     | <u>Life Contingent Annuity Reserves <u>Excluding Longevity Reinsurance</u></u>                            |                                                          |                        |               |     |                    |
| (1) | General Account Life Contingent Annuity Reserves                                                          | Exhibit 5 Column 2 Line 0299999, in part†                | \$0                    |               |     |                    |
| (2) | General Account Life Contingent Supplemental Contract Reserves                                            | Exhibit 5 Column 2 Line 0399999, in part†                | \$0                    |               |     |                    |
| (3) | General Account Life Contingent Miscellaneous Reserves                                                    | Exhibit 5 Column 2 Line 0799999, in part†                | \$0                    |               |     |                    |
| (4) | Separate Account (SA) Life Contingent Annuity Reserves                                                    | S/A Exhibit 3 Column 2 Line 0299999, in part†            | \$0                    |               |     |                    |
| (5) | Total Life Contingent Annuity Reserves <u>Excluding Longevity Reinsurance</u>                             | Lines (1) + (2) + (3) + (4)                              | \$0                    | X             | † = | \$0                |
|     |                                                                                                           |                                                          | =====                  |               |     | =====              |
| (6) | <u>Longevity Reinsurance</u><br>Present Value of Longevity Reinsurance Benefits                           | Company Records (enter a pre-tax amount)                 | \$0                    | X             | †   | \$0                |
| (7) | <u>Reduction in RBC for Cash Flow Components in Excess of Benefits Discounted Accumulated Sufficiency</u> | Company Records (enter a pre-tax amount)                 |                        |               |     | \$0                |
| (8) | Total Longevity Reinsurance                                                                               | If Line (6) > Line (7), then Line (6) - Line (7), else 0 |                        |               |     | \$0                |
| (9) | Total Life Contingent Annuity Reserves                                                                    | Lines (5) + (8)                                          |                        |               |     | \$0                |

† The tiered calculation is illustrated in the Longevity Risk section of the risk-based capital instructions.

‡ Include only the portion of reserves for products in scope per the instructions

 Denotes items that must be manually entered on the filing software.

- LR030, CALCULATION OF TAX EFFECT FOR LIFE AND FRATERNAL RISK-BASED CAPITAL – Line 138b Longevity C-2 Risk, Source column

|                                  | <u>Source</u>                                          | <u>RBC<br/>Amount</u> | <u>Tax<br/>Factor</u> | <u>RBC Tax Effect</u> |
|----------------------------------|--------------------------------------------------------|-----------------------|-----------------------|-----------------------|
| (138b) <u>Longevity C-2 Risk</u> | <u>LR025-A Longevity Risk<br/>Column (2) Line (95)</u> | _____                 | 0.2100                |                       |

- LR031, CALCULATION OF AUTHORIZED CONTROL LEVEL RISK-BASED CAPITAL – Line 48b Longevity Risk, Source column

|                                 | <u>Source</u>                                          | <u>RBC<br/>Requirement</u> |
|---------------------------------|--------------------------------------------------------|----------------------------|
| (48b) <u>Longevity C-2 Risk</u> | <u>LR025-A Longevity Risk<br/>Column (2) Line (95)</u> | _____                      |

**LONGEVITY RISK**

## LR025-A

*Basis of Factors*

The factors chosen represent surplus needed to provide for claims in excess of reserves resulting from increased policyholder longevity calibrated to a 95<sup>th</sup> percentile level. For the purpose of this calibration aggregate reserves were assumed to provide for an 85<sup>th</sup> percentile outcome.

Longevity risk was considered over the entire lifetime of the policies since these annuity policies are generally not subject to repricing. Calibration of longevity risk considered both trend risk based on uncertainty in future population mortality improvements, as well as level or volatility risk which derives from misestimation of current population mortality rates or random fluctuations. Trend risk applies equally to all populations whereas level and volatility risk factors decrease with larger portfolios consistent with the law of large numbers.

**Except for longevity reinsurance, S**statutory reserve was chosen as the exposure base as a consistent measure of the economic exposure to increased longevity. Factors were also scaled by reserve level since number of insured policyholders is a less accessible measure of company specific volatility risk. Factors provided are pre-tax and were developed assuming a 21% tax adjustment would be subsequently applied.

**For longevity reinsurance, the present value of benefits offers a more consistent measure of risk exposure than statutory reserves. The excess of the remainder of the cash flows (premiums, fees, investment income, and expenses) exceeding benefits should be considered as offsets to the charge when these items are not reflected elsewhere in the statutory reserve framework. Specifically, for longevity reinsurance under Principle-Based Reserving (PBR), the reduction in RBC equals the greater of the negative of the unfloored calculated reserve and 0. For longevity reinsurance not under PBR, the reduction in RBC should be the excess of the aforementioned cash flows over benefits using the company's Cash Flow Testing model on a standalone basis.**

*Specific Instructions for Application of the Formula*

**Excluding longevity reinsurance,** Annual statement reference is for the total reserve for the products in scope. The scope includes annuity products with life contingent payments where benefits are to be distributed in the form of an annuity. The entire reserve amount for contracts in scope that include any life contingent payments are in scope. For example, under a certain-and-life style annuity, the entire reserve for both the certain payments and life contingent payments are in scope. Variable immediate annuity reserves under VM-21 are also in scope where there are life contingent payments. Scope does not include annuity products that are not life contingent, or deferred annuity products where the policyholder has a right but not an obligation to annuitize. A certain-and-life style annuity, where only certain payments remain (such as following the death of the annuitant), is out of scope. Variable deferred annuity contract reserves under VM-21 are out of scope, including reserves valued under VM-21 for any contracts where policyholder account value has reached zero, but a lifetime benefit may still be payable by the insurer. Line (3) for General Account Life Contingent Miscellaneous reserves is included in the event there are any reserves for products in scope reported on Exhibit 5 line 0799999; it is not meant to include cash flow testing reserves reported on this line. Included in scope are:

- Single Premium Immediate Annuities (SPIA) and other payout annuities in pay status
- Deferred Income Annuities which will enter annuity pay status in the future
- Structured Settlements for annuitants with any life contingent benefits
- Group Annuities, such as those associated with pension liabilities with both immediate and deferred benefits

The total reserve exposure is then further broken down by size as in a tax table. This breakdown will not appear on the RBC filing software or on the printed copy, as the application of factors to reserves is completed automatically. The calculation is as follows:

| Line (5) | Life Contingent Annuity Reserves <b>Excluding Longevity Reinsurance</b> | (1)<br>Statement Value | Factor     | (2)<br>RBC Requirement |
|----------|-------------------------------------------------------------------------|------------------------|------------|------------------------|
|          | First 250 Million                                                       | _____                  | X 0.0171 = | _____                  |
|          | Next 250 Million                                                        | _____                  | X 0.0108 = | _____                  |
|          | Next 500 Million                                                        | _____                  | X 0.0095 = | _____                  |
|          | Over 1,000 Million                                                      | _____                  | X 0.0089 = | _____                  |

Total Life Contingent Annuity Reserves ~~Excluding~~  
~~Longevity Reinsurance~~

For Longevity Reinsurance, the company modeling of benefits is the basis for the statement value. Specifically, the statement value should be the present value of benefits from an appropriate model. For longevity reinsurance that is being reserved under PBR, the present value of benefits should come from their PBR model. For longevity reinsurance that is not being reserved under PBR, the company should use their Cash Flow Testing model.

The present value of benefits exposure is then further broken down by size as in a tax table. This breakdown will not appear on the RBC filing software or on the printed copy, as the application of factors to present value of benefits is completed automatically. The calculation is as follows:

| <u>Line (6)</u> | <u>Present Value of Longevity Reinsurance</u>       | <u>Statement Value</u> | <u>Factor</u> | <u>RBC</u>         |
|-----------------|-----------------------------------------------------|------------------------|---------------|--------------------|
|                 | <u>Benefits</u>                                     |                        |               | <u>Requirement</u> |
|                 | <del>Longevity Reinsurance</del>                    |                        |               |                    |
|                 | First 250 Million                                   |                        | X 0.0171 =    |                    |
|                 | Next 250 Million                                    |                        | X 0.0108 =    |                    |
|                 | Next 500 Million                                    |                        | X 0.0095 =    |                    |
|                 | Over 1,000 Million                                  |                        | X 0.0089 =    |                    |
|                 | <u>Present Value of Longevity Reinsurance</u>       |                        |               |                    |
|                 | <del>Benefits</del>                                 |                        |               |                    |
|                 | <del>Total Life Contingent Annuity</del>            |                        |               |                    |
|                 | <del>Reserves Excluding Longevity Reinsurance</del> |                        |               |                    |

Line (7)

There is a reduction in RBC for the discounted accumulated sufficiency at the end of the projection to the valuation date ~~excess of the reflecting the remainder of the cash flows (premiums, fees, investment income, and less benefits and expenses) exceeding benefits that are not reflected elsewhere in the statutory reserve framework.~~ For longevity reinsurance that is being reserved under PBR, the present value of premiums, fees, investment income, less benefits and expenses should come from the company's PBR model; this should result in the reduction in RBC equaling the greater of the negative of the unfloored calculated reserve and 0.

For longevity reinsurance that is not being reserved under PBR, the present value of premiums, fees, investment income, less benefits and expenses should come from the company's Cash Flow Testing model ~~to the extent those cash flows are not supporting the sufficiency of the testing.~~ The reduction in RBC should be the excess of the aforementioned cash flows over benefits using the company's Cash Flow Testing model on a standalone basis.

The amount ultimately included in the authorized control level will be subject to a guardrail factor of 0\_ and a correlation factor of -.25.



**Date:** 08/25/2025

**To:** Seong-min Eom, Chair of the Longevity Risk (A/E) Subgroup

**Subject:** C-2b Charge for Longevity Reinsurance

Thank you for the opportunity to provide comments on the Life C-2 Mortality Factor proposal. We support the effort to explore the development of a C-2 longevity risk factor for longevity reinsurance agreements. In this letter we offer one possible approach to consider for such factor's development.

We believe that one method to consider for measuring longevity risk is to shock the longevity assumption (i.e., trend risk for reductions in mortality) while holding all other assumptions and factors constant. Given that this business will soon be subject to VM-22 calculations, we believe this method can leverage the PBR calculation, resulting in both a theoretically correct and practically feasible method. Our proposed method follows the below steps:

1. Baseline Present Value – Using the latest year-end PBR model (or CFT model for pre-PBR business), calculate the actuarial present value of outflows less inflows, including the recognition recurring premiums, under Scenario 12 from the NAIC economic scenario generator, for the entire block of longevity reinsurance contracts held by the company.
  - a. If less feasible for companies to obtain a net asset earned rate (NAER) for discounting cash flows in this method, we could also explore modifying this method such that it uses a scenario reserve calculation rather than an actuarial present value calculation.
2. Shock Present Value – Repeat step 1, but increase mortality improvement to a [X]%, reflecting a CTE90 level within a representative longevity risk distribution.
  - a. The [X]% shock would be hardcoded in the instructions and the same for all companies calculating the method.
  - b. We recommend that [X]% be no lower than 1%, as this is the shock used for the VM-22 stochastic exclusion ratio test.
  - c. Any quantitative evidence offered by interested parties would be considered in determining the final number. In absence of any supporting data, one possible starting point could be a shock of 2.0% to future mortality improvement.
3. Impact of Shock – Subtract the present value of actuarial cash flows in step 1, floored at zero, from the actuarial present value of cash flows in step 2, floored at zero.

4. Factor Development – Divide the amount in Step 3 by the latest year-end statutory reserve held for the associated contracts. This equals the C-2b factor to use for RBC.
  - a. Note the statutory reserves may be as low as the sum of anticipated benefits over the next 12 months, as this is the floor within the VM-22 reserve calculation for longevity reinsurance.
  - b. If statutory reserves are low relative to the difference of the actuarial present value of cash flows and, therefore, are expected to produce unstable ratio levels, one modification to this proposed method for the Subgroup to consider is using the present value of Scenario 12 projected benefits instead of the statutory reserves. Of course, the disadvantage is that this number is less auditable.
5. RBC Amount – Calculate the C-2b amount by multiplying the factor from step 4 by the statutory reserves included in the RBC instructions.

We believe that using this “longevity shock method” is a direct and implementable approach to calculate a C-2b factor for longevity risk. In addition, this approach only shocks the longevity assumption in excess of moderately adverse risk, therefore avoiding double-counting between capital and reserves.

We also believe it is appropriate to include recurring premium within this calculation because, if such premium is guaranteed, then we would expect the floating leg payments to vary considerably from the fixed leg payment in an adverse scenario, and therefore still capture the inherent longevity risk associated with such agreements.

Thank you for consideration of our letter and, of course, we are happy to discuss further or answer any questions.

Insurance Division  
Minnesota Department of Commerce

Draft: 11/19/25

Longevity Risk (E/A) Subgroup  
Virtual Meeting  
November 19, 2025

The Longevity Risk (E/A) Subgroup of the Life Risk-Based Capital (E) Working Group and Life Actuarial (A) Task Force met November 19, 2025. The following Subgroup members participated: Seong-min Eom, Chair (NJ); Lei Rao-Knight (CT); Mike Yanacheak (IA); Ben Slutsker (MN); William B. Carmello (NY); Peter Weber (OH); Rachel Hemphill (TX); and Tomasz Serbinowski (UT).

1. Discussed Detailed Longevity Reinsurance Proposals

Linda Lankowski (American Academy of Actuaries – Academy) noted the Academy proposal (Attachment A) is based on modeling a mortality stress scenario and subtracting the reserves. The stress scenario would be based on a shock to the mortality improvement or the overall mortality. Lankowski noted that while shocks would need to be calibrated, the proposal is not expecting companies to perform complicated projection modeling.

Brian Bayerle (ACLI) said the ACLI proposal (Attachment B) recommended using the present value of benefits from the model then multiplying it by the current C-2 factors found in the *2025 Risk-Based Capital Instructions* until such time as updated factors are recommended by the Academy. The ACLI proposal includes an offset to account for premium and fees that were not used for reserving purposes due to the floor of the reserves. Bayerle said the proposal accounts for business issued prior to VM-22, Requirements for Principle-based Reserving for Non-Variable Annuities, in which case the companies would use the offset from their cash-flow testing model. For business issued under VM-22, the offset would come from the VM-22 PBR model.

Hemphill questioned if the ACLI proposal creates a materiality issue because in the PBR model that may have been treated as immaterial, but would be material in terms of C-2. She noted that if so, there may need to be an update to PBR for how materiality is handled. Bayerle said he would take the question back to the ACLI to discuss the potential need for materiality changes due to the different purposes.

Slutsker provided an overview of the MN proposal he presented on the Oct. 9 call. He said the MN approach asks a philosophical question of moving to a principles-based capital approach, similar to C-3 for market risk. He noted that the approach does not use the current C-2 factors or look at the VM-22 reserves.

Serbinowski asked how Minnesota views their proposal with the Academy calculation and if the approach would consider using the Academy shock approach rather than the 1% or 2% used as a placeholder in Minnesota's proposal. Slutsker said the Academy's proposal to use the total asset requirement minus the statutory reserve made sense and the shock for the mortality under the Minnesota proposal could be consistent with the shocks proposed by the Academy.

Lankowski asked for clarification regarding the CTE 90 and CTE 70 calculations in the Minnesota proposal. She asked Slutsker to confirm there were no investment shocks that would cause double counting. Slutsker confirmed that the only shocks are with respect to mortality.

Eom said the New Jersey proposal (Attachment C) was similar in structure to the ACLI proposal but used a different set of C-2 factors. Eom said the proposed factors were based on sensitivities New Jersey had run. She said she planned to provide the analysis for discussion at the fall national meeting. Gary Hu (Prudential) asked if the NJ

proposal used the total reserve or the reserve floor. Eom said the proposal used the reserve floor that is multiplied by the proposed factor(s).

## 2. Discussed Adoption Timeline

Eom said the four proposals will be discussed and exposed in more detail to the broader Life Actuarial (A) Task Force audience at the fall national meeting to keep the timeline for 2026 adoption intact. Amy Fitzpatrick (NAIC) provided an overview of the timeline and said that due to the structural changes required of all methods, the Subgroup should get the recommendation to the Life Risk-Based Capital (E) Working Group by March 1<sup>st</sup>.

Having no further business, the Longevity Risk (E/A) Subgroup adjourned.

SharePoint/NAIC Support Staff Hub/Member Meetings/A CMTE/LATF/2025-3 Fall/LongevitySG/11 19/Nov 19\_LongevitySG.docx

Draft: 11/17/25

Longevity Risk (E/A) Subgroup  
Virtual Meeting  
October 9, 2025

The Longevity Risk (E/A) Subgroup of the Life Risk-Based Capital (E) Working Group and Life Actuarial (A) Task Force met October 9, 2025. The following Subgroup members participated: Seong-min Eom, Chair (NJ); Lei Rao-Knight (CT); Mike Yanacheak (IA); Ben Slutsker (MN); William B. Carmello (NY); Peter Weber (OH); Rachel Hemphill (TX); and Tomasz Serbinowski (UT).

1. Discussed American Academy of Actuaries' Longevity Risk Factor Approach

Linda Lankowski (Academy) described the Academy's proposal (Attachment A). She noted that an appropriate measure to base the risk charge on was the present value of future benefits. The risk charges are the current C-2 factors as outlined in the 2025 Risk-Based Capital (RBC) that more consideration is needed to detail how total asset requirements (TAR) fit into RBC calculations.

Eom asked if 1) the C-2 factors should be applied to present value of benefits in the short term, and 2) as the capital framework and VM-22 are implemented will there be more to consider. Lankowski agreed that further action may be needed when VM-22 is in effect.

Serbinowski asked if the rationale for the calibration of the factor for escalating benefits was due to the present value of benefits reflecting expected cost of living adjustment (COLA). He said that could potentially warrant a higher C-2 factor due to the uncertainty associated with differences between expected and actual COLA. Lankowski agreed.

2. Discussed American Council of Life Insurers' Longevity Risk Factor Approach

Brian Bayerle (ACLI) stated ACLI's approach also applies a C-2 factor to the present value of benefits (Attachment B). The ACLI approach differs by including an offsetting credit for premiums that would not necessarily be reflected in the statutory reserve. Bayerle said premiums associated with longevity reinsurance contracts are contractually guaranteed, so that justifies including premiums not already reflected. The goal is to ensure that companies have a TAR that accurately reflects any longevity risk.

Eom asked for details on the credit application. Bayerle said the ACLI acknowledges the reserve is not a good basis for this application, so the ACLI proposes two calculations: 1) the present value of liabilities and 2) a credit for the premiums not accounted for elsewhere. Bayerle said two calculations would make it easier to identify the credit determination.

Eom asked about the practicality of attaining such a net premium amount for the calculation. Bayerle said there is structural work to be done as well developing a sound, justifiable methodology to determine the net premium.

Serbinowski asked if the surplus not included would be subtracted after the C-2 factor is applied to present value of benefits. Bayerle said mechanics can be discussed further.

3. Discussed Minnesota's Longevity Risk Factor Approach

Slutsker described the Minnesota proposal (Attachment C) as using the latest year-end principle-based reserving (PBR) model for contracts that are in scope of PBR and the cash-flow testing model for pre-PBR contracts.

Eom asked if the annual factor in the proposal would be developed based on each company's experience or a single factor used across the industry. Slutsker said the annual factor would be based on each company similar to C3P1 and C3P2 where it is unique to the company and not generalized. Slutsker also noted that the calculation could be done different times of year since it is expected that mortality changes less with the economic environment.

Serbinowski said that this seems more like TAR in the sense it corresponds to CTE 90 less CTE 70. He also asked if step 4 and step 5 are used to fit in the existing framework since the amount is already calculated in step 3. Slutsker agreed. Slutsker said if there was anything dropped by the model or any simplification there may be a difference, but it is expected to be small, and step 3 would get the number for a given year. Serbinowski asked if it is possible that the value after the shock is still zero if there is enough margin in premium to cover a lot of the adverse experience. Slutsker said he a company is more likely to get a net loss from the shock closer to issue since it was just priced. However, if mortality emerged favorably to the company overtime, then they do not need to hold additional capital since the company is already holding more reserves than needed. He said that similar to VM-22 methodology, a company should not hold negative reserves, so capital should be treated similarly, therefore floored at zero.

#### 4. Discussed New Jersey's Longevity Risk Factor Approach

Eom said New Jersey proposes developing a C-2 factor based on mortality shock amount of present value of the liability divided by the present value of the liability (Attachment D). Companies would get the shock ratio and multiply by the 12 months benefit amount. The rationale behind using 12 months benefit is because the premium comes and then the liability will be provided year by year or quarter by quarter depending on the contract. Since the premiums are essentially guaranteed, in the stress situation there may not be much capital needed on top of the reserve. Eom said most longevity reinsurance transactions are based on non-U.S. population, and it is unclear if the current factor is stable.

Slutsker asked if New Jersey's proposal has any element that includes a surplus credit, or if the company is profitable if they still need to hold capital. Eom said that those companies would still have to generate capital; however, the 12 months benefit would make the capital flexible.

Eom said her proposal is intended to be consistent with the VM-22 reserve amount floor though she open to seeing the present value of reserves with a credit in a sensitivity test. Slutsker asked if the floor would only be reached for the amount subtracted out. He asked if the floor would not apply to the stressed situation present value of liabilities. Eom agreed.

Slutsker asked if quantity A in the proposal implied they are independent events: 1) is there a positive correlation between mortality level stress and mortality trend stress, 2) if there is a positive correlation is there double counting, and 3) the square root backs out about 30% which leaves a material amount still double counted. Eom stated there is no certainty whether they are correlated or independent, so her proposal assumes they are independent.

Serbinowski asked about the magnitude of the expected difference between the A to B ratio and the current C-2 factor. Eom said if her proposal is proved to be similar to the current C-2 factor, then she would approve using the current C-2 factor. She noted that tests are needed to see if the same factor is applicable to different populations.

Serbinowski noted that Paul Navratil was on the call and asked him to comment on the similarity of this approach is to the approach the Academy used for developing C-2 factors for payout annuities. Paul Navratil (Academy) said they took the view that mortality trend stress and mortality level stress are independent. He said the total after covariance will be dominated by the larger of the two. He noted that regarding the factors for payout annuities, for younger populations it was closer to trend alone, but older populations shifted towards base mortality being more important. He said the net of the two was not perfectly flat but very similar, so it was reasonable to use a single factor rather than principal-based calculation.

Slutsker said understanding trend risk in terms of longevity is easily understood, but he asked about an example of shock in that direction. Navratil said some examples include smoking cessation, statin drugs for cardiac conditions, or potentially the future success of gene editing technology like Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR) could lead to bumps in mortality. He stated those examples may not present the same way a shock in mortality would, but they would have a meaningful increase to mortality improvement over a decade.

Serbinowski said he had a different thought that since large blocks of business would have less uncertainty but still mortality is not going to be known with certainty, the question of uncertainty is less about the shock and more about the base mortality assumptions.

Eom asked Navratil when the Academy applied such sensitivity tests if they applied a shock to different mortality tables or used a different pattern in the mortality curve. Navratil said shocks were done independently to base mortality and mortality improvement. Eom asked if the conclusion was that they were relatively stable. Navratil said the ratio approach in New Jersey's proposal is similar to what was done for the payout annuity C-2 factors, in that total shock should reflect both mortality trend and mortality level. He said that the net of mortality trend and mortality level after covariance was not completely flat, but it was more stable than expected so that led them to conclude that using a factor rather than recalculating the factor every year was a plausible approach. Navratil noted that the Subgroup should think about if there is anything different about this product, such as the benefits being outside of the U.S. that would cause them to get different numerical results.

## 5. Discussed Next Steps

Eom noted that Minnesota's proposal needed more consideration due to the complexity. She would like to see data regarding the stability of the results. Slutsker said from an implementation perspective, there are models already available, and the only complexity is redoing the calculation each year since CTE 70 is complex compared to the statutory reserve. Slutsker suggested a demonstration comparing Minnesota's approach to the other proposals show such differences in frequency, shock, denominator, and whether to use the reserve or CTE 70.

Eom said New Jersey's proposal is not based on company experience and instead is based on developing a singular set of factors for all companies to use similar to the current C-2 factors. Slutsker agreed it would be simpler if the factor was consistent across different companies. Eom said a sensitivity test depending on base mortality and mortality improvement is needed. She said it may not be different from tests done for previous C-2 factors. She said that if proved stable, using current C-2 factor would be appropriate, but can move forward with next steps if proved otherwise. Eom asked Academy or ACLI to prove such factors are relatively stable regardless of population mortality. Bayerle said the ACLI could assemble an analysis of the proposals. Lankowski said the data the Academy has regarding the topic is outdated, so doing a lot of data analysis in short time would be difficult.

Navratil said that the risk based on longevity itself seemed to be stable. He said that Minnesota's proposal captures how different companies' books being in-the-money will not be consistent across the industry; he said that is the key difference between discussions regarding longevity reinsurance and payout annuities. Slutsker agreed the

surplus of each company will be different, but he said there are aspects of each proposal that could be implemented into one method.

Serbinowski said the Minnesota proposal was not complicated. Serbinowski questioned how difficult it would be for companies to run one more scenario with mortality improvement at 1%, 1.5%, or 2% considering companies are in a time when they are running these types of scenarios anyway to get their financial statements ready. However, a challenge of the ACLI proposal requires recognizing the surplus premium which may not be straightforward. He also asked if it is feasible in short time to revisit what was done for current C-2 factor to address how dependent the calculation was on base mortality and trend. Lankowski thought it was reasonable to analyze stability. Bayerle said ACLI will further detail the offsetting credit.

Eom said prior data may be adequate or little additional data may be needed to continue with the sensitivity tests. She said the Subgroup plans to discuss the progress at the fall national meeting to be able to make a proposal by March to the Life Risk-Based Capital (E) Working Group. Lankowski asked if there is no proposal by March if there would be no change in methodology. Eom said if there is not much change, or the approach uses the same factor then it will be exposed as it is. Lankowski asked if a change of more than just the factor needs to be exposed by December. Fitzpatrick (NAIC) said if there is a structural change to the RBC blanks, then March is the ultimate deadline as noted in the timeline (Attachment A).

Having no further business, the Longevity Risk (E/A) Subgroup adjourned.

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### Agenda Item 3

Consider Adoption of the Experience Reporting (A) Subgroup  
Report, and Consider Exposure of Amendment Proposal Form  
(APF) 2024-12 Group Annuity Data Collection

Draft: 11/21/25

Experience Reporting (A) Subgroup  
Virtual Meeting  
November 17, 2025

The Experience Reporting (A) Subgroup of the Life Actuarial (A) Task Force met Nov. 17, 2025. The following Subgroup members participated: Fred Andersen, Chair (MN); Nicole Boyd (KS); Bill Carmello (NY); Lei Rao-Knight (CT); Seong-min Eom (NJ); Hattie Wang (TX); Elaine Lam (CA).

1. Received an Update on APF 2024-12

Seong-min Eom (NJ) gave an introduction which included a brief history of amendment proposal form (APF) 2024-12. This APF would require the mandatory reporting of mortality experience for group annuity business. Eom mentioned that the APF was originally exposed in 2024 and that a drafting group was formed to continue working to refine it. The drafting group clarified definitions, instructions, and determined which fields were necessary and meaningful for the data collection. To better understand the industry's mix of group annuity business, the drafting group developed a survey which was sent to companies. Eom concluded by stating that the drafting group used the results of the survey to assist in modifying the APF.

Pat Allison (NAIC) then gave a presentation (Attachment A) that included a more detailed background of the APF and results of an industry survey conducted by the drafting group.

Carmello had some questions regarding the addition to VM-51, Experience Reporting Formats, Section 2.C. A paragraph was added to clarify which companies are required to submit life experience data. Originally, the section cited a \$50 million direct premium limit for automatic exclusion from the data collection but did not specify whether all companies over that limit were required to submit data. Allison stated that the \$50 million limit was initially used to identify companies excluded. Participating companies were then selected from the companies that were over that limit. Allison concluded by stating that if a company grows and exceeds that limit, they are not required to participate unless the NAIC adds new companies to the data collection and selects them to participate.

Birny Birnbaum (Center for Economic Justice—CEJ) questioned why the APF only required the 5-digit zip code instead of the more specific 9-digit zip code. Birnbaum felt that for future analysis, the 9-digit code would be more appropriate. Birnbaum also questioned why the NAIC chose to not provide survey results for categories that included less than 5 companies responding, as a small number of companies could make up a significant portion of the industry. Allison explained that the NAIC had followed the precedent of the Society of Actuaries (SOA) to use the 5-company rule to preserve confidentiality. Birnbaum then had some questions regarding the values that were reported from the survey. Allison reminded the group that the survey results had limitations as some companies did not provide data for all fields.

Anderson then asked what was recommended for next steps. Allison stated that the APF is scheduled for re-exposure at the 2025 NAIC Fall National Meeting.

Having no further business, the Experience Reporting (A) Subgroup adjourned.

## Update on Life Mortality Experience Data Collection

Angela McNabb, ASA, MAAA

December 7, 2025



# Agenda

- Recap of Previous Life Mortality Experience Data Collections
  - Observation Years 2018 & 2019
  - Observation Years 2020 - 2023
- 2025 Life Mortality Experience Data Collection
- New Agreements with States
- NAIC Process Improvements

## Recap of Previous Life Mortality Experience Data Collections Observation Years 2018 & 2019

- The NAIC provided aggregated data files to the SOA for observation years 2018 and 2019. These files included data from all participating companies.
- Significant work was done by both the NAIC and the SOA's Individual Life Experience Committee to review the aggregated data. Comparisons were made to data collected for prior observation years, and predictive analytics was used to look for anomalies within the data.
- In October 2024 the Society of Actuaries published the "2019 Individual Life Insurance Mortality Experience Report" which included data for 2012 – 2019.

## Recap of Life Mortality Experience Data Collections Observation Years 2020 - 2023

- NAIC staff is currently working with companies to complete data submissions and reviews for the 2020 – 2023 observation years.
  - There are very few companies still outstanding.
- NAIC staff plans to deliver aggregated data files to the SOA for all four years by 12/31/2025.
- If companies are unable to provide acceptable data by the deadline, they may need to be excluded from the aggregated files.

## Recap of Life Mortality Experience Data Collections Observation Years 2020 - 2023

- There was significant company staff turnover during this time period.
- Many companies underwent admin system conversions.
- A majority of companies implemented process improvements (e.g. better data mapping) and/or data clean-up efforts (e.g. correcting source data in their admin systems).
- In some cases, these improvements in the data required a resubmission of earlier observation years.
- Many companies needed numerous submissions in order for their data to be acceptable.

## 2025 Life Mortality Experience Data Collection

### Covering Observation Year 2024

- A total of 102 companies are participating in the current data collection.
  - One company was excluded due to small size. The group elected to exclude it under the provision of VM-51 Section 2.C.
- According to VM-51, initial submissions were due 9/30/2025 and final submissions are due 2/28/2026.
- Overall, we are seeing the data is much cleaner for 2024 than in previous years. Fewer companies are needing to resubmit their data.
- The improvement in data quality is resulting in less NAIC processing and review time. We expect to be able to provide an aggregated data file for the 2024 observation year to the SOA by 12/31/2026.

## New Agreements With States

- VM-50 Section 3.B.3 states: “The Experience Reporting Agent will seek to enter into agreements with a group of state insurance departments for the collection of information under statistical plans included in VM-51.”
- The NAIC entered into an agreement with the state of Missouri when we began collecting life mortality experience data.
- In anticipation of the group annuity mortality experience data collection, we requested agreements with two additional states.
  - We recently finalized an agreement with Minnesota.
  - An agreement with another state is currently being negotiated.

## NAIC Process Improvements

- Last year we migrated from an FTP site to a SharePoint site to transfer confidential documents (e.g. Control Totals, Reconciliations, Data Feedback, etc.).
- NAIC staff is working to convert to a new platform for processing data files. This is expected to significantly decrease the time needed to run file validations and prepare feedback for the companies.



## Group Annuity Mortality Experience Data Collection (APF 2024-12)

Pat Allison, FSA, MAAA

December 7, 2025



# Agenda

1. Background
2. Group Annuity Industry Survey
3. APF 2024-12 Group Annuity Provisions
  - a) Plans In and Out of Scope
  - b) Criteria for Selecting Companies to Participate In the Data Collection
  - c) Data Submission Requirements
  - d) Collar Type
  - e) Plan Identifiers
  - f) Contracts Issued Outside the U.S.
4. Non-Group Annuity Changes Included In APF 2024-12

## Background

- LATF exposed an initial draft of APF 2024-12 for comments on 8/13/2024.
- The Experience Reporting (A) Subgroup met on 12/16/2024 and directed formation of a Drafting Group to review the APF and make refinements.
- Drafting Group participants included Seong-min Eom who chaired the group, NAIC staff, SOA staff, Chair of SOA Group Annuity Experience Committee, Academy of Actuaries, ACLI, and individual companies.
- The Drafting Group met regularly to discuss changes to VM-50 and VM-51 and drafted a Group Annuity Industry Survey to better understand companies' group annuity business.
- The revised APF was presented to the Experience Reporting (A) Subgroup on 11/17/2025.
- All references to APF 2024-12 in this presentation are referring to the revised version.

## Criteria Used to Select Survey Participants

- All companies that participated in the SOA's most recent Group Annuity mortality experience study
- All companies from LIMRA's PRT sales survey
- Company groups (i.e. those within each NAIC group code) were ranked by size for each of the following metrics:
  - Statutory reserves for Group business with life contingencies
  - Certificates Inforce
  - Income Payable
  - 2024 Direct Group Annuity Premium
- Company groups ranking in the top 30 by size for 2 or more metrics were selected to participate in the survey
  - A total of 101 companies were surveyed and all responded.
  - 51 companies have group annuity business in scope.

## Survey Limitations

- Certificates inforce, amount of income payable, and premium are understated. Many companies left one or more of these blank.
- Some companies left one or more survey questions blank.
- Follow-up was needed with many companies to determine whether contract types reported as “Other” are in scope. Responses are currently being reviewed.
- Best efforts were made to aggregate company responses, but some interpretation was necessary

## Mix of Business for Contract Types in Scope

| Contract Type                                                   | Company Count | Certificates Inforce | Total Reserves (millions) | 2024 Direct Premium (millions) | 2025 Direct Premium a/o 6/30 (millions) | 2024 Income Payable (millions) |
|-----------------------------------------------------------------|---------------|----------------------|---------------------------|--------------------------------|-----------------------------------------|--------------------------------|
| PRT - Private                                                   | 36            | 5,200,000            | \$335,000                 | \$45,000                       | \$8,300                                 | \$17,000                       |
| PRT - Public                                                    | N/A           | N/A                  | N/A                       | N/A                            | N/A                                     | N/A                            |
| Longevity Reinsurance                                           | 6             | N/A                  | \$2,100                   | N/A                            | N/A                                     | N/A                            |
| Immediate Participation Guarantee (IPG)*                        | 11            | 36,000               | \$4,500                   | N/A                            | N/A                                     | \$203                          |
| Purchased Annuities Originating from Defined Contribution Plans | 24            | 4,100,000            | \$103,000                 | \$11,900                       | \$6,600                                 | \$423                          |
| Group Variable Payout Annuities                                 | 18            | 13,000               | \$2,200                   | N/A                            | N/A                                     | \$17.7                         |
| Other (includes out of scope business)                          | 44            | 5,600,000            | \$524,400                 | \$37,200                       | \$12,300                                | \$1,500                        |

\* Includes only guaranteed IPG, where the insurance company bears the mortality risk

## Mix of Business for Contract Types Out Of Scope

| Contract Type                                                                 | Company Count | Certificates Inforce | Total Reserves (millions) | 2024 Direct Premium (millions) | 2025 Direct Premium a/o 6/30 (millions) | 2024 Income Payable (millions) |
|-------------------------------------------------------------------------------|---------------|----------------------|---------------------------|--------------------------------|-----------------------------------------|--------------------------------|
| Immediate Participation Guarantee (IPG)*                                      | 11            | 146,000              | \$36,000                  | \$1,000                        | \$800                                   | \$8000                         |
| Group Structured Settlements                                                  | 8             | 87,000               | \$38,000                  | N/A                            | N/A                                     | \$1,300                        |
| Guaranteed Investment Contracts and Synthetic Guaranteed Investment Contracts | 18            | 190,000              | \$33,000                  | \$2,000                        | \$911                                   | N/A                            |
| Funding Agreements                                                            | 19            | 280                  | \$290,000                 | N/A                            | N/A                                     | N/A                            |
| Stable Value                                                                  | 5             | N/A                  | \$131,000                 | N/A                            | N/A                                     | N/A                            |
| Final Expense                                                                 | N/A           | N/A                  | N/A                       | N/A                            | N/A                                     | N/A                            |

\* Includes only non-guaranteed IPG, where the plan sponsor bears the mortality risk

## Group Annuity Data Collection APF – Products In Scope

Direct written group annuity business issued by a company in the U.S. for lives in any country as well as reinsurance assumed written by a company in the U.S. for business outside the U.S. Product types include:

- a. Group Pension Risk Transfer (PRT) annuities originating from ongoing and terminated private and public defined benefit pension plans, including both participating and nonparticipating contracts where the insurance company bears mortality risk.
- b. Purchased group annuities with mortality risk originating from defined contribution plans.
- c. Immediate Participation Guarantee contracts for which the insurance company bears the mortality risk.
- d. Longevity Reinsurance.
- e. Group Variable Payout Annuities.

## Group Annuity Data Collection APF – Products Out Of Scope

The intent is to align the scope of business collected under this statistical plan with the scope of VM-22. Therefore, the following types of business defined in VM-01 are excluded from data collection:

- a) Guaranteed Investment Contracts
- b) Synthetic Guaranteed Investment Contracts
- c) Immediate Participation Guarantee contracts for which the plan sponsor bears the mortality risk.
- d) Funding Agreements
- e) Stable Value contracts
- f) Pre-Need Annuities

## Potential Company Selection Criteria Based on Survey Results

Annual Statement data cannot be used to select companies that will participate in Group Annuity mortality experience data collections, since contract types in scope are not specifically identified.

Reserves reported in the survey are the most reliable metric for selection of participating companies. Of the 51 companies with Group Annuities in scope, 33 have over \$1 billion in Group Annuity reserves in scope, and 3 have \$500 million - \$1 billion.

Based on survey results, potential selection criteria could include:

- All companies with \$500 million or more in statutory reserves for group annuity business in scope.
- Companies previously participating in the SOA or LIMRA studies.
- Affiliates of any company selected based on the above criteria (subject to a minimum reserve level, e.g. \$200 million).
- Any additional companies selected by the Life Actuarial (A) Task Force.

This selection approach would:

- Cover over 90% of industry statutory reserves for group annuity business in scope.
- Include a mix of older and newer contracts.
- Exempt smaller companies with immaterial amounts of business in scope.

## APF 2024-12 Criteria to Determine Companies That Are Required to Submit Experience Data

- The Experience Reporting Agent, under the direction of the Life Actuarial (A) Task Force, will select companies that are required to submit experience data.
- The selection of companies will be based on achieving a minimum target level of approximately 90% of industry statutory reserves in scope.
- Companies selected to submit mortality experience data are expected to continue reporting their experience in future years, barring circumstances justifying an exemption.
- The list of companies selected is subject to change. Additional companies may be selected to maintain the target level of industry experience, or at the discretion of the Life Actuarial (A) Task Force.
- Any additional companies selected will be given sufficient notice to prepare for the data submission.

## Submission of Group Annuity Mortality Experience Data

- The proposed effective date for the Group Annuity Data Collection is January 1, 2027.
- The Group Annuity Mortality Experience Data Collection is designed to parallel the existing Life Mortality Experience Data Collection.
  - Data will be collected annually using the NAIC's Regulatory Data Collection (RDC) online software submission application.
  - Initial submissions will be due on 9/30 of the reporting year.
  - Final submissions will be due on 2/28 of the following year.
  - Participants will receive immediate feedback on form and format errors from RDC. More detailed feedback will follow from NAIC reviewers based on additional validations and review.
- There will be some companies that will require special handling due to the existence of quota-share arrangements between companies. The survey indicated at least 17 companies have these arrangements.

## VM-50 Control Totals and Reconciliation

- The Control Totals will consist of certificate counts and income payable.
  - The purpose of the Control Totals is to ensure that a complete file was received.
- The Reconciliation to the company's statistical and financial data will mirror the survey template and will include certificate counts, income payable, and statutory reserves.
  - The fields will be broken down into the various product lines (both in scope and out of scope) to ensure that only in scope data is reported.

## VM-51 Data Elements – Collar Type

| Data Elements                         | SOA<br>Study | APF<br>2024-12 | Comments on Survey Results                                                                                                                                                                                                                                                                                                    |
|---------------------------------------|--------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Collar Type<br>(Blue vs White Collar) | N            | Y              | 18 companies representing 78% of PRT reserves indicate they have accurate collar type data (48% for all their business; 30% for part of their business). Multiple criteria may be used to set collar type: benefit amount, industry type, job descriptions, and collar type data or collar percentages from the plan sponsor. |
| NAICS Code                            | N            | Y              | SIC and NAICS codes identify industry type. Many companies maintain both codes. However, 13 companies maintain only the NAICS code.                                                                                                                                                                                           |
| SIC Code                              | Y            | Y              |                                                                                                                                                                                                                                                                                                                               |
| Union / NonUnion                      | Y            | Y              | Some companies use these criteria to assign collar type. Approximately 30% of companies provided this data in the most recent SOA study.                                                                                                                                                                                      |
| Salaried / Hourly                     | Y            | Y              |                                                                                                                                                                                                                                                                                                                               |
| Zip Code                              | Y            | Y              | The 9-digit zip code was used in the SOA study, while the APF requests 5-digits.                                                                                                                                                                                                                                              |

## VM-51 Data Elements – Plan Type Identifiers

| Plan Type                                                                                                                   | SOA Study | APF 2024-12 | Comments on Survey Results                                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------|-----------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Defined Benefit                                                                                                             | Y         | N           | The APF breaks out specific product type that fell into this category.                                                                                                                                                                                                                                                                   |
| Defined Contribution                                                                                                        | Y         | Y           | The survey indicated there is a large amount of group annuity business originating from defined contribution plans.                                                                                                                                                                                                                      |
| Immediate Participation Guarantee (IPG)<br>Contracts considered Guaranteed (the insurance company bears the mortality risk) | N         | Y           | Immediate Participation Guarantee contracts that are considered Guaranteed represent approximately 41% of total IPG reserves. The Drafting Group agreed that only Guaranteed IPG contracts should be in scope, although data was collected for Nonguaranteed IPG contracts for prior SOA Group Annuity mortality studies.                |
| IPG Contracts considered Nonguaranteed (the plan sponsor bears the mortality risk)                                          | N         | N           |                                                                                                                                                                                                                                                                                                                                          |
| PRT - Private                                                                                                               | N         | Y           | Mortality differs between Private and Public plans. Less than 5 companies separately reported Public PRT business. A number of companies reported Public PRT as Private PRT and noted that Public PRT data was not available or was difficult to identify. Given more time to prepare their data, companies may be able to provide this. |
| PRT - Public                                                                                                                | N         | Y           |                                                                                                                                                                                                                                                                                                                                          |
| Longevity Reinsurance                                                                                                       | N         | Y           | This is mainly UK business written by a limited number of companies.                                                                                                                                                                                                                                                                     |
| Group Variable Payout Annuities                                                                                             | N         | Y           | A significant number of companies indicated that they have this type of business.                                                                                                                                                                                                                                                        |

## Contracts Issued Outside the U.S.

- Countries Included:
  - The most recent SOA Study requested contracts issued in the U.S. and Canada and included no country identifiers.
  - APF 2024-12 includes country identifiers for US, Canada, UK, and Other.
    - Survey results show 10 companies have issued group annuity business outside the U.S., in a limited number of countries (primarily the UK).
- Location Indicator:
  - APF 2024-12 includes a field to identify the 2-digit area code that is part of the UK postcode.
    - Survey respondents indicated this would be the least specific code useful for measuring mortality by area.
- Confidentiality:
  - Data will not be made publicly available for a given country unless the NAIC determines that the confidentiality of companies reporting data for that country can be maintained.

## APF 2024-12 Non-Group Annuity Changes

- VM-50
  - Section 2.B - Added a statement that the NAIC shall collect a fee from companies participating in the data collections.
  - Section 4.B.15 – Added this section which requires an accredited actuary to sign off on the reasonableness of A/E ratios calculated by the NAIC based on the records deemed acceptable after the data review process has been completed.
- VM-51
  - Section 2.C – Added a paragraph specifying that the Experience Reporting Agent under the direction of the Life Actuarial (A) Task Force will select companies required to submit data. There has been confusion because current language does not make it clear that companies with over \$50 million of direct premium are not automatically required to submit data.
  - Section 2.D – Removed outdated language that specified the collection of data for observation years 2022 and 2023 in reporting year 2024.
  - Appendix 4, Data Item 20 – Added a new plan code to identify coverages issued as a result of exercising a Guaranteed Insurability Option.



**Life Actuarial (A) Task Force/ Health Actuarial (B) Task Force  
Amendment Proposal Form\***

1. Identify yourself, your affiliation and a very brief description (title) of the issue.  
  
Seong-min Eom, NJ Division of Insurance  
Pat Allison, NAIC  
  
NAIC Collection of Group Annuity Mortality Experience
2. Identify the document, including the date if the document is “released for comment,” and the location in the document where the amendment is proposed:  
  
VM-50  
Sections 2.B.2, 4.B.2, and 4.B.3  
  
VM-51  
Section 2 title and Section 2.E  
New Section 3: Statistical Plan for Group Annuity Mortality  
New Appendix 5: Group Annuity Mortality Data Elements and Format
3. Show what changes are needed by providing a red-line version of the original verbiage with deletions and identify the verbiage to be deleted, inserted or changed by providing a red-line (turn on “track changes” in Word®) version of the verbiage. (You may do this through an attachment.)  
  
See attachment.  
  
Note:  
The NAIC relied on the following SOA work products, parts of which were cited and/or reproduced with permission and used to draft this amendment to the *Valuation Manual* for group annuitant mortality experience:
  - Pri-2012 Private Retirement Plans Mortality Tables Report. Copyright 2019, The Society of Actuaries and Society of Actuaries Research Institute, Chicago, Illinois.
  - 2015 – 2018 Group Annuity Mortality Experience Report. Copyright 2022, The Society of Actuaries and Society of Actuaries Research Institute, Chicago, Illinois.
4. State the reason for the proposed amendment? (You may do this through an attachment.)  
  
This amendment establishes a Statistical Plan for Group Annuity Mortality and designates the NAIC as the Experience Reporting Agent.

\* This form is not intended for minor corrections, such as formatting, grammar, cross-references or spelling. Those types of changes do not require action by the entire group and may be submitted via letter or email to the NAIC staff support person for the NAIC group where the document originated.

NAIC Staff Comments:

| Dates: Received                       | Reviewed by Staff | Distributed | Considered |
|---------------------------------------|-------------------|-------------|------------|
|                                       |                   |             |            |
| Notes: APF 2024-12: Exposed 8/13/2024 |                   |             |            |

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*VM-50: Experience Reporting Requirements*

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**Section 1: Overview**

A. Purpose of the Experience Reporting Requirements

The purpose of this section is to define the requirements pursuant to Section 13 of Model #820 for the submission and analysis of company data. It includes consideration of the experience reporting process, the roles of the relevant parties, and the intended use of and access to the data, and the process to protect the confidentiality of the data as outlined in Model #820.

B. PBR and the Need for Experience Data

The need for experience data includes but is not limited to:

1. PBR may require development of assumptions and margins based on company experience, industry experience or a blend of the two. The collection of experience data provides a database to establish industry experience tables or factors, such as valuation tables or factors as needed.
2. The development of industry experience tables provides a basis for assumptions when company data is not available or appropriate and provides a comparison basis that allows the state insurance regulator to perform reasonableness checks on the appropriateness of assumptions as documented in the actuarial reports.
3. The collection of experience data may assist state insurance regulators, reviewing actuaries, auditors and other parties with authorized access to the PBR actuarial reports to perform reasonableness checks on the appropriateness of principle-based methods and assumptions, including margins, documented in those reports.
4. The collection of experience data provides an independent check on the accuracy and completeness of company experience studies, thereby encouraging companies to establish a disciplined internal process for producing experience studies. Industry aggregate or sub-industry aggregate experience studies may assist an individual company for use in setting experience-based assumptions. As long as the confidentiality of each company's submitted results is maintained, a company may obtain results of a study on companies' submitted experience for use in formulating experience assumptions.
5. The collection of experience data will provide a basis for establishing and updating the assumptions and margins prescribed by regulators in the *Valuation Manual*.
6. The reliability of assumptions based on company experience is founded on reliable historical data from comparable characteristics of insurance policies including, but not limited to, underwriting standards and insurance policy benefits and provisions. As with

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all forms of experience data analysis, larger and more consistent statistical samples have a greater probability of producing reliable analyses of historic experience than smaller or inconsistent samples. To improve statistical credibility, it is necessary that experience data from multiple companies be combined and aggregated.

7. The collection of experience data allows state insurance regulators to identify outliers and monitor changes in company experience factors versus a common benchmark to provide a basis for exploring issues related to those differences.
8. PBR is an emerging practice and will evolve over time. Research studies other than those contemplated at inception may be useful to improvement of the PBR process, including increasing the accuracy or efficiency of models. Because the collection of experience data will facilitate these improvements, research studies of various types should be encouraged.
9. The collection of experience data is not intended as a substitute for a robust review of companies' methodologies or assumptions, including dialogue with companies' actuaries.

### Section 2: Statutory Authority and Experience Reporting Agent

#### A. Statutory Authority

1. Model #820 provides the legal authority for the *Valuation Manual* to prescribe experience reporting requirements with respect to companies and lines of business within the scope of the model.
2. The statutes and regulations requiring data submissions generally apply to all companies licensed to sell life insurance, A&H insurance and deposit-type contracts. These companies must submit experience data as prescribed by the *Valuation Manual*.
3. Section 4A(5) of Model #820 defines the data to be collected to be confidential.

#### B. Experience Reporting Agent

1. For the purposes of implementing the experience reporting required by state laws based on Section 13 of Model #820, an Experience Reporting Agent will be used for the purpose of collecting, pooling and aggregating data submitted by companies as prescribed by lines of business included in VM-51.
2. The NAIC is designated as Experience Reporting Agent for the following Statistical Plans:
  - a. Life Insurance Mortality, beginning Jan. 1, 2020,
  - b. Group Annuity Mortality, beginning Jan. 1, 2026.
3. The designation of the NAIC as Experience Reporting Agent does not preclude state insurance regulators from independently engaging other entities for similar data required under this *Valuation Manual* or other data purposes.

### Section 3: Experience Reporting Requirements

#### A. Statistical Plans

1. Consistent with state laws based on Section 13 of Model #820, the Experience Reporting Agent shall collect experience data based on statistical plans defined in the *Valuation Manual*.

**Deleted:** Statistical Plan for Mortality beginning Jan. 1, 2020,

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**Commented [PA1]:** It will need to be determined whether a 1/1/26 effective date is feasible. The first data collection would kick off 7/1/26 if the timing aligns with the annual life insurance mortality experience data collection..

**Deleted:** and NAIC expertise in collecting and sorting data from multiple sources into a cohesive database in a secure and efficient manner, but

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2. Statistical plans are detailed instructions that define the type of experience data being collected (e.g., mortality; elective policyholder behavior, such as surrenders, lapses, premium payment patterns, etc.; and company expense data, such as commissions, policy expenses, overhead expenses etc.). The state insurance regulators serving on the Life Actuarial (A) Task Force and Health Actuarial (B) Task Force, or any successor body, will be responsible for prescribing the requirements for any statistical plan by applicable line of business. For each type of experience data being collected, the statistical plan will define the data elements and format of each data element, as well as the frequency of the collection of experience data. The statistical plan will define the process and the due dates for submitting the experience data. The statistical plan will define criteria that will determine which companies must submit the experience data. The statistical plan will also define the scope of business that is to be included in the experience data collection, such as lines of business, product types, types of underwriting, etc. Statistical plans are defined in VM-51 of the *Valuation Manual*. Statistical plans will be added to VM-51 of the *Valuation Manual* when they are ready to be implemented. Additional data elements and formats to be collected will be added as necessary, in subsequent revisions to the *Valuation Manual*.
3. Data must conform to common data definitions. Standard definitions provide for stable and reliable databases and are the basis of meaningful aggregated insurance data. This will be accomplished through a uniform set of suggested minimum experience reporting requirements for all companies.

B. Role and Responsibilities of the Experience Reporting Agent

1. Based on requirements of VM-51, the Experience Reporting Agent may design its data collection procedures to ensure it is able to meet these regulatory requirements. The Experience Reporting Agent will provide sufficient notice to reporting companies of changes, procedures and error tolerances to enable the companies to adequately prepare for the data submission.
2. The Experience Reporting Agent will aggregate the experience of companies using a common set of classifications and definitions to develop industry experience tables.
3. The Experience Reporting Agent will seek to enter into agreements with a group of state insurance departments for the collection of information under statistical plans included in VM-51. The number of states that contract with the Experience Reporting Agent will be based on achieving a target level of industry experience prescribed by VM-51 for each line of business in preparing an industry experience table.
  - a. The agreement between the state insurance department(s) and the Experience Reporting Agent will be consistent with any data collection and confidentiality requirements included within Model #820 and the *Valuation Manual*. Those state insurance departments seeking to contract with the Experience Reporting Agent will inform the Experience Reporting Agent of any other state law requirements, including laws related to the procurement of services that will need to be considered as part of the contracting process.
  - b. Use of the Experience Reporting Agent by the contracting state insurance departments does not preclude those state insurance departments or any other state insurance

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departments from contracting independently with another Experience Reporting Agent for similar data required under this *Valuation Manual* or other data purposes.

4. The Life Actuarial (A) Task Force or Health Actuarial (B) Task Force will be responsible for the content and maintenance of the experience reporting requirements. The Life Actuarial (A) Task Force or Health Actuarial (B) Task Force or a working group will monitor the data definitions, quality standards, appendices and reports described in the experience reporting requirements to assure that they take advantage of changes in technology and provide for new regulatory and company needs.
5. To ensure that the experience reporting requirements will continue to be useful, the Life Actuarial (A) Task Force or Health Actuarial (B) Task Force will seek to review each statistical plan on a periodic basis at least once every five years. The Life Actuarial (A) Task Force or Health Actuarial (B) Task Force should have regular dialogue, feedback and discussion of this topic. In seeking feedback and engaging in discussions, the Life Actuarial (A) Task Force or Health Actuarial (B) Task Force shall include a broad range of data users, including state insurance regulators, consumer representatives, members of professional actuarial organizations, large and small companies, and insurance trade organizations.
6. The Experience Reporting Agent will obtain and undergo at least annual external audits to validate that controls with respect to data security and related topics are consistent with industry standards and best practices. The Experience Reporting Agent will provide a copy of any report prepared in connection with such an audit, upon a company's request. In the event of a material deficiency identified in the external audit or in the event of an identified security breach affecting the Experience Reporting Data, the Experience Reporting Agent shall notify the NAIC, and the states that have directed the Experience Reporting Agent to collect this information, of the nature and extent of such an issue. In the event of an identified security breach affecting Experience Reporting Data, the Experience Reporting Agent shall also notify any insurer whose data was affected. Upon good cause shown, the Experience Reporting Agent will take reasonable actions to protect the data under its control, including that the data submission process may be suspended until the security issue has been remediated. If data submission is suspended under this section, the Experience Reporting Agent will work with the states that have directed collection to issue appropriate guidance modifying the requirements of VM 51, Section 2.D. The term "good cause" shall mean that there is the chance of irreparable harm upon continuing the transmission of the data to the Experience Reporting Agent. Once the security issue has been remediated, the Experience Reporting Agent shall notify the NAIC and the states that have directed the Experience Reporting Agent to collect this information. The Experience Reporting Agent shall work in conjunction with the NAIC and the states that have directed the Experience Reporting Agent to collect this information to develop a revised data submission schedule for any deferred submissions. The revised schedule shall provide for reasonable timing for companies to provide such data.

C. Role of Other Organizations

The Experience Reporting Agent may ask for other organizations to play a role for one or more of the following items, including the execution of agreements and incorporation of confidentiality requirements where appropriate:

1. Consult with the NAIC (as appropriate) in the design and implementation of the experience retrieval process;

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2. Assist with the data validation process for data intended to be forwarded to the SOA or other actuarial professional organizations to develop industry experience tables;
3. Analyze data, including any summarized or aggregated data, produced by the Experience Reporting Agent;
4. Create initial experience tables and any revised tables;
5. Provide feedback in the development and evaluation of requests for proposal for services related to the reporting of experience requirement;
6. Create statutory valuation tables as appropriate and necessary;
7. Determine and produce additional industry experience tables or reports that might be suggested by the data collected;
8. Work with the Life Actuarial (A) Task Force or Health Actuarial (B) Task Force, in accordance with the *Valuation Manual* governance process, in developing new reporting formats and modifying current experience reporting formats;
9. Support a close working relationship among all parties having an interest in the success of the experience reporting requirement.

#### Section 4: Data Quality and Ownership

##### A. General Requirements

1. The quality, accuracy and consistency of submitted data is key to developing industry experience tables that are statistically credible and represent the underlying emerging experience. Statistical procedures cannot easily detect certain types of errors in reporting of data. For example, if an underwriter fails to evaluate the proper risk classification for an insured, then the “statistical system” has little chance of detecting such an error unless the risk classification is somehow implausible.
2. To ensure data quality, coding a policy, loss, transaction or other body of data as anything other than what it is known as is prohibited. This does not preclude a company from coding a transaction with incomplete detail and reporting such transactions to the Experience Reporting Agent, but there can be nothing that is known to be inaccurate or deceptive in the reporting. An audit of a company’s data submitted to the Experience Reporting Agent under a statistical plan in VM-51 can include comparison of submitted data to other company files.
3. When the Experience Reporting Agent determines that the cause of an edit exception could produce systematic errors, the company must correct the error and respond in a timely fashion, with priority given to errors that have the largest likelihood to affect a significant amount of data. When an error is found that has affected data reported to the Experience Reporting Agent, the company shall report the nature of the error and the nature of its likely impact to the Experience Reporting Agent. Retrospective correction of data subject to systematic errors shall be done when the error affects a significant amount of data that is still being used for regulatory purposes and it is reasonably practical to make the correction through the application of a computer program or a procedure applied to the entire data set without the need to manually examine more than a small number of individual records.

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B. Specific Requirements

1. Once the data file is submitted by the company, the Experience Reporting Agent will perform a validity check of the data elements within each data record in the data file for proper syntax and verify that required data elements are populated. The Experience Reporting Agent will notify the company of all syntax errors and any missing data elements that are required. Companies are required to respond to the Experience Reporting Agent by submitting a corrected data file. The Experience Reporting Agent will provide sufficient notice to reporting companies of changes, procedures and error tolerances to enable the companies to adequately prepare for the data submission.

2. Each submission of data filed by a company with the Experience Reporting Agent shall be balanced against a set of control totals provided by the company with the data submission. Any submission that does not balance to the control totals shall be referred to the company for review and resolution.

a. Control totals for the Statistical Plan for Life Insurance Mortality shall include applicable record counts, claim counts, amounts insured, and claim amounts.

b. Control totals for the Statistical Plan for Group Annuity Mortality shall include applicable record counts, claim counts, and claim amounts.

3. Each company submitting experience data and each company on whose behalf data is being submitted as required in VM-51 will perform a reconciliation between its submitted experience data with its statistical and financial data, and provide an explanation of differences, to the Experience Reporting Agent. For the Statistical Plan for Life Insurance Mortality, the reconciliation must include policy count and insurance amount. For the Statistical Plan for Group Annuity Mortality, the reconciliation must include TBD.

- a. If a third-party administrator (TPA) that is not an insurance company or an insurance company not required to submit its direct data is submitting data on behalf of an insurance company, the reconciliation will consist of separate lines identifying each insurance company for whom this entity is submitting data.
- b. If the TPA is an insurance company that is required to submit its direct data, the reconciliation must include separate lines identifying each additional company whose data is being submitted.
- c. The reconciliation to company statistical and financial data for both the direct writer and the reinsurer or TPA must include lines indicating the amount of business that is being reported by the reinsurer or TPA. The NAIC will use this information to confirm that all in-scope business is reported and that there is no double counting of policies.

4. Validity checks are designed to identify:

- a. Improper syntax or incomplete coding (e.g., a numeric field that is not numeric, missing elements of a date field);
- b. Data elements containing codes that are not contained within the set of possible valid codes;

**Deleted:** At a minimum, these control totals shall include applicable record counts, claim counts, amounts insured and claim amounts....

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**Commented [PA2]:** The values to be included in the reconciliation are to be determined.

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- c. Data elements containing codes that are contained within the set of possible valid codes but are not valid in conjunction with another data element code;
  - d. Required data elements that are not populated.
- 5. Where quality would not appear to be significantly compromised, the Experience Reporting Agent may use records with missing or invalid data if such invalid or missing data do not involve a field that is relevant or would affect the credibility of the report. For companies with a body of data for a state, line of business, product type or observation period that fails to meet these standards, the Experience Reporting Agent will use its discretion, with regulatory disclosure of key decisions made, regarding the omission of the entire body of data or only including records with valid data. Completeness of reports is desirable, but not at the risk of including a body of data that appears to have an unreasonably high chance of significant errors.
- 6. Errors of a consistent nature are referred to as “systematic.” Incorrect coding instructions can introduce errors of a consistent nature. Programming errors within the data processing system of insurer company can also produce systematic miscoding as the system converts data to the required formats for experience reporting. Most systematic errors will produce data that, when reviewed using tests designed to reveal various types of systematic errors, will appear unreasonable and likely to be in error. In addition, some individual coding errors may produce erroneous results that show up when exposures and losses are compared in a systematic fashion. Such checking often cannot, however, provide a conclusive indication that data with unusual patterns is incorrect. The Experience Reporting Agent will perform tests and look at trends using previously reported data to determine if systematic errors or unusual patterns are occurring.
- 7. The Experience Reporting Agent will undertake reasonability checks that include the comparison of aggregate and company experience for underwriting class and type of coverage data elements for the current reporting period to company and aggregate experience from prior periods for the purpose of identifying potential coding or reporting errors. When reporting instructions are changed, newly reported data elements shall be examined to see that they correlate reasonably with data elements reported under the old instructions.
- 8. At a minimum, reasonability checks by the Experience Reporting Agent will include:
  - a. An unusually large percentage of company data reported under a single or very limited number of categories;
  - b. Unusual or unlikely reporting patterns in a company’s data;
  - c. Claim amounts that appear unusually high or low for the corresponding exposures;
  - d. Reported claims without corresponding policy values and exposures;
  - e. Unreasonable loss frequencies or amounts in comparison to ranges of expectation that recognize statistical fluctuation;
  - f. Unusual shifts in the distribution of business from one reporting period to the next.
- 9. If a company’s unusual pattern under Section 4.B.8.a, Section 4.B.8.b or Section 4.B.8.c is verified as accurate (that is, the reason for the apparent anomaly is an unusual mix of business), then it is not necessary that a similar pattern for the same company be reconfirmed year after year.

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10. The Experience Reporting Agent will keep track of the results of the validity and reasonability checks and may adjust thresholds in successive reporting years to maintain a reasonable balance between the magnitude of errors being found and the cost to companies.
11. Results that may indicate a likelihood of critical indications, as defined below, will be reported to the company with an explanation of the unusual findings and their possible significance. When the possible or probable errors appear to be of a significant nature, the Experience Reporting Agent will indicate to the company that this is a "critical indication." "Critical indications" are those that, if not corrected or confirmed, would leave a significant degree of doubt whether the affected data should be used in reports to the state insurance regulator and included in industry databases. It is intended that Experience Reporting Agents will have reasonable flexibility to implement this under the direction of the state insurance regulators. Also, under the direction of the state insurance regulators, the Experience Reporting Agent may grade the severity of indications, or it may simply identify certain indications as critical. While companies are expected to undertake a reasonable examination of all indications provided to them, they are not required to respond to every indication except for those labeled by the Experience Reporting Agent as "critical."
12. The Experience Reporting Agent will use its discretion regarding the omission of data from reports owing to the failure of an insurer company to respond adequately to unusual reasonability indications. Completeness of reports is desirable, but not at the risk of including data that appears to have an unreasonably high chance of containing significant errors.
13. Companies shall acknowledge and respond to reasonability queries from the Experience Reporting Agent. This shall include specific responses to all critical indications provided by the Experience Reporting Agent. Other indications shall be studied for apparent errors, as well as for indications of systematic errors. Corrections for critical indications shall be provided to the Experience Reporting Agent or, when a correction is not feasible, the extent and nature of the error shall be reported to the Experience Reporting Agent.

C. Ownership of Data

1. Experience data submitted by companies to the Experience Reporting Agent will be considered the property of the companies submitting such data, but the recognition of such ownership will not affect the ability of state insurance regulators or the NAIC to use such information as authorized by state laws based on Model #820 or the *Valuation Manual*, or, in case of state insurance regulators, for solvency oversight, financial examinations and financial analysis.
2. The Experience Reporting Agent will be responsible for maintaining data, error reports, logs and other intermediate work products, and reports for use in processing, documentation, production and reproduction of reports provided to state insurance regulators in accordance with the *Valuation Manual*. The Experience Reporting Agent will be responsible for demonstrating such reproducibility at the request of state insurance regulators or an auditor designated by state insurance regulators.

Section 5: Experience Data

A. Introduction

1. Using the data collected under statistical plans, as defined in the *Valuation Manual*, the Experience Reporting Agent produces aggregate databases as defined by this

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*Valuation Manual*. The Experience Reporting Agent, and/or other persons assisting the Experience Reporting Agent, will utilize those databases to produce industry experience tables and reports as defined in the *Valuation Manual*. In order to ensure continued relevance of reports, each defined data collection and resulting report structure shall be reviewed for usefulness at least once every five years since initial adoption or prior review.

2. Data compilations are evaluated according to four distinct, and often competing, standards: quality, completeness, timeliness and cost. In general, quality is a primary goal in developing any statistical data report. The priorities of the other three standards vary according to the purpose of the report.
3. The Experience Reporting Agent may modify or enlarge the requirements of the *Valuation Manual*, through recommendation to the Life Actuarial (A) Task Force or Health Actuarial (B) Task Force and in accordance with the *Valuation Manual* governance process for information to accommodate changing needs and environments. However, in most cases, changes to existing data reporting systems will be feasible only to provide information on future transactions. Requirements to submit new information may require that companies change their systems. Also, the Experience Reporting Agent may need several years before it can generate meaningful data meeting the new requirements with matching claims and insured amounts. The exact time frames for implementing new data requirements and producing reports will vary depending on the type of reports.

B. Design of Reports Linked to Purpose

Fundamental to the design of each report is an evaluation of its purpose and use. The Life Actuarial (A) Task Force and Health Actuarial (B) Task Force shall specify model reports responding to general regulatory needs. These model reports will serve the basic informational needs of state insurance regulators. To address a particular issue or problem, a state insurance regulator may have to request to the Life Actuarial (A) Task Force or Health Actuarial (B) Task Force that additional reports be developed.

C. Basic Report Designs

1. The Life Actuarial (A) Task Force or Health Actuarial (A) Task Force will designate basic types of reports to meet differing needs and time frames. Each statistical plan defined in VM-51 of the *Valuation Manual* will provide a detailed description of the reports, the frequency and time frame for the reports. Statistical compilations are anticipated to be the primary reports.
2. Statistical compilations are aggregate reports that generally match appropriate exposure amounts and transaction event amounts to evaluate the recent experience for a line of business. For example, a statistical compilation of mortality experience would match insurance face amounts exposed to death with actual death claims paid. Here the exposure amount is the total insurance face amount exposed to death, and the transaction event amounts would be the death claims paid. As another example, a statistical compilation of surrender experience would match total cash surrender amounts exposed to surrender with actual surrender amounts paid. Here the exposure amount is the total cash surrender amounts that could be surrendered,

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and the transaction event amounts would be the total surrender amounts actually paid. Statistical compilations can be performed for the industry or for the state of domicile.

3. In addition to statistical compilations, state insurance regulators can specify additional reports based on elements in the statistical plans in VM-51. State insurance regulators can also use statistical compilations and additional reports to evaluate non-formulaic assumptions.
4. The Life Actuarial (A) Task Force or Health Actuarial (B) Task Force will specify the reports to be provided to the professional actuarial associations to fulfill their roles as specified in Section 3.C of this VM-50. In general, the reports are expected to include statistical compilation at the industry level.
5. State insurance regulators can use the reports to review long-term trends. Aggregate experience results may indicate areas warranting additional investigation.

D. Supplemental Reports

1. For specific lines of business and types of experience data, state insurance regulators may request additional reports from the Experience Reporting Agent. State insurance regulators also may request custom reports, which may contain specific data or experience not regularly produced in other reports.
2. The regulator and the Experience Reporting Agent must negotiate time schedules for producing supplemental reports. The information in these reports is limited by the amount of data actually available and the manner in which it has been reported.

E. Reports to State Insurance Departments

The Experience Reporting Agent will periodically provide the following reports to state insurance departments:

1. A list of companies whose data is included in the compilation.
2. A list of companies whose data was excluded from the compilation because it fell outside of the tolerances set for missing or invalid data, or for any other reason.

**Section 6: Confidentiality of Data**

A. Confidentiality of Experience Data

1. The confidentiality of the experience data, experience materials and related information collected pursuant to the *Valuation Manual* is governed by state laws based on Section 14.A.(5) of Model #820. The following information is considered “confidential information” by state laws based on Section 14A(5) of the Model #820:

Any documents, materials, data and other information submitted by a company under Section 13 of [the Standard Valuation Law] (collectively, “experience data”) and any other documents, materials, data and other information, including, but not limited to, all working papers, and copies thereof, created or

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produced in connection with such experience data, in each case that include any potentially company-identifying or personally identifiable information, that is provided to or obtained by the commissioner (together with any “experience data,” the “experience materials”) and any other documents, materials, data and other information, including, but not limited to, all working papers, and copies thereof, created, produced or obtained by or disclosed to the commissioner or any other person in connection with such experience materials.

2. Nothing in the experience reporting requirements or elsewhere within the *Valuation Manual* is intended to, or should be construed to, amend or supersede any applicable statutory requirements, or otherwise require any disclosure of confidential data or materials that may violate any applicable federal or state laws, rules, regulations, privileges or court orders applicable to such data or materials.

B. Treatment of Confidential Information

1. Confidential information may be shared only with those individuals and entities specified in state laws based on Section 14B(3) of Model #820. Any agreement between a state insurance department and the Experience Reporting Agent will address the extent to which the Experience Reporting Agent is authorized to share confidential information consistent with state law.
2. The Experience Reporting Agent may be required to use confidential information in order to prepare compilations of aggregated experience data that do not permit identification of individual company experience or personally identifiable information. These reports of aggregated information, including those reports referenced in Section 5 of VM-50, are not considered confidential information, and the Experience Reporting Agent may make publicly available such reports. Reports using aggregate experience data will have sufficient diversification of data contributors to avoid identification of individual companies.
3. Consistent with state laws based on Section 14B(3) of the Model #820 and any agreements between a state insurance department and the Experience Reporting Agent, access to the confidential information will be limited to:
  - a. State, federal or international regulatory agencies;
  - b. The company with respect to confidential information it has submitted, and any reports prepared by the Experience Reporting Agent based on such confidential information;
  - c. The NAIC, and its affiliates and subsidiaries;
  - d. Auditor(s) of the Experience Reporting Agent for purposes of the experience reporting function outlined in this VM-50; and
  - e. Other individuals or entities, including contractors or subcontractors of the Experience Reporting Agent, otherwise assisting the Experience Reporting Agent or state insurance regulators in fulfilling the purposes of VM-50. These other individuals or entities may provide services related to a variety of areas of expertise, such as assisting with performing industry experience studies,

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developing valuation mortality tables, data editing and data quality review. These other individuals and entities shall be subject to the same standards as the Experience Reporting Agent with respect to the maintenance of confidential information.

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#### Section 1: Introduction

- A. The experience reporting requirements are defined in Section 3 of VM-50. The experience reporting requirements state that the Experience Reporting Agent will collect experience data based on statistical plans that are defined in VM-51 of the *Valuation Manual*. Statistical plans are to be added to VM-51 of the *Valuation Manual* when they are ready to be implemented.
- B. Each statistical plan shall contain the following information:
  1. The type of experience data to be collected (e.g., mortality experience; policy behavior experience, such as surrenders, lapses, conversions, premium payment patterns, etc.; and company expense experience, such as commission expense, policy issue and maintenance expense, company overhead expenses etc.);
  2. The scope of business to be included in the experience data to be collected (e.g., line(s) of business, such as individual or group, life, annuity or health; product type(s), such as term, whole life, universal life, indexed life, variable life, fixed annuity, indexed annuity, variable annuity, LTC or disability income; and type of underwriting, such as medically underwritten, simplified issue (SI), GI, accelerated, etc.);
  3. The criteria for determining which companies or legal entities must submit the experience data to be collected;
  4. The process for submitting the experience data to be collected, which will include the frequency of the data collection, the due dates for data collection and how the data is to be submitted to the Experience Reporting Agent;
  5. The individual data elements and format for each data element that will be contained in each experience data record, along with detailed instructions defining each data element or how to code each data element. Additional information may be required, such as questionnaires and plan code forms that will assist in defining the individual data elements that may be unique to each company or legal entity submitting such experience data elements;

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6. The experience data reports to be produced.

**Section 2: Statistical Plan for Life Insurance Mortality**

**A. Type of Experience Collected Under This Statistical Plan**

The type of experience to be collected under this statistical plan is mortality experience.

**B. Scope of Business Collected Under This Statistical Plan**

1. The data for this statistical plan is the individual ordinary life line of business. Such business is to include direct written business issued in the U.S. All values should be prior to any reinsurance ceded except for the situation defined in VM-51 Section 2.B.2. Assumption reinsurance of an individual ordinary life line of business, where the assuming company is legally responsible for all benefits and claims paid, shall be included within the scope of this statistical plan. The ordinary life line of business does not include separate lines of business, such as SI/GI, worksite, individually solicited group life, direct response, final expense, preneed, home service, credit life, and corporate-owned life insurance (COLI)/bank-owned life insurance (BOLI)/charity-owned life insurance (CHOLI).
2. In the event a reinsurer or TPA is responsible for administering a block of business, the reinsurer or TPA may submit that block of business on behalf of the direct writer. In this case, the reinsurer or TPA must be identified in Appendix 4 Item 1 - Submitting Company ID, and the direct writer must be identified in Appendix 4 Item 2 - NAIC Company Code of Direct Writer.
  - a. As defined in VM-50 Section 4.B.3, the reconciliation to company statistical and financial data for both the direct writing company and all reinsurers and/or TPAs must include lines indicating the amount of business that is being reported by the reinsurers and/or TPAs. The Experience Reporting Agent will compare the reconciliations for all business submitted by the direct writer and any reinsurers and/or TPAs to ensure that all business is included and that there is no double counting of policies.
  - b. If an insurance company is required to submit its direct written business and it also has reinsurance assumed business, it should only submit the assumed business if asked to do so by the ceding company since some ceding companies may not have been selected for data submission.
3. The direct writing company is ultimately responsible for all the data submitted for its company.

**C. Criteria to Determine Companies That Are Required to Submit Experience Data**

Companies with less than \$50 million of direct individual life premium shall be exempted from reporting experience data required under this statistical plan. This threshold for exemption shall be measured based on aggregate premium volume of all affiliated companies and shall be reviewed annually and be subject to change by the Experience Reporting Agent. At its option, a group of nonexempt affiliated companies may exclude from these requirements affiliated companies with less than \$10 million direct individual life premium provided that the affiliated group remains nonexempt.

Additional exemptions may be granted by the Experience Reporting Agent where appropriate, following consultation with the domestic insurance regulator, based on achieving a target level of approximately 85% of industry experience for the type of experience data being collected under this statistical plan.

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#### D. Process for Submitting Experience Data Under This Statistical Plan

Data for this statistical plan for mortality shall be submitted on an annual basis. Each company required to submit this data shall submit the data using the Regulatory Data Collection (RDC) online software submission application developed by the Experience Reporting Agent. For each data file submitted by a company, the Experience Reporting Agent will perform reasonability and completeness checks, as defined in Section 4 of VM-50, on the data. The Experience Reporting Agent will notify the company within 30 days following the data submission of any possible errors that need to be corrected. The Experience Reporting Agent will compile and send a report listing potential errors that need correction to the company.

Data for this statistical plan for mortality will be compiled using a calendar year method. The reporting calendar year is the calendar year that the company submits the experience data. The observation calendar year is the calendar year of the experience data that is reported. The observation calendar year will be one year prior to the reporting calendar year. For example, if the current calendar year is 2024 and that is the reporting calendar year, the company is to report the experience data that was in-force or issued in calendar year 2023, which is the observation calendar year. For the 2024 reporting calendar year, companies who are required to submit data for this statistical plan for mortality will be required to submit two observation calendar years of data, namely observation calendar year 2022 and observation calendar year 2023. For reporting calendar years after 2024, companies who are required to submit data for this statistical plan for mortality will be required to submit one observation calendar year of data.

Given an observation calendar year of 20XX, the calendar year method requires reporting of experience data as follows:

- i. Report policies in force during or issued during calendar year 20XX.
- ii. Report terminations that were incurred in calendar year 20XX and reported before April 1, 20XX+1. Companies may report terminations reported after April 1, 20XX+1 if they choose to do so. However, exclude rescinded policies (e.g., 10-day free look exercises) from the data submission.

For any reporting calendar year, the data call will occur during the second quarter, and data is to be submitted according to the requirements of the *Valuation Manual* in effect during that calendar year. Data submissions must be made by Sept. 30 of the reporting calendar year. Corrections of data submissions must be completed by Feb. 28 of the year following the reporting calendar year. The NAIC may extend either of these deadlines if it is deemed necessary.

#### E. Experience Data Elements and Formats Required by This Statistical Plan

Companies subject to reporting pursuant to the criteria stated in Section 2.C are required to complete the data forms in Appendix 1, Appendix 2 and Appendix 3 as appropriate, and also complete the Experience Data Elements and Formats as defined in Appendix 4.

The data should include policies issued as standard, substandard (optional) or sold within a preferred class structure. Preferred class structure means that, depending on the underwriting results, a policy could be issued in classes ranging from a best preferred class to a residual standard class. Policies issued as part of a preferred class structure are not to be classified as substandard.

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Policies issued as conversions from term or group contracts should be included. For these converted policies, the issue date should be the issue date of the converted policy, and the underwriting field will identify them as issues resulting from conversion.

Generally, each policy number represents a policy issued as a result of ordinary underwriting. If a single life policy, the base policy on a single life has the policy number and a segment number of 1. On a joint life policy, each life has separate records with the same policy number. The base policy on the first life has a segment number of 1, and the base policy on the second life has a segment number of 2. Policies that cover more than two lives are not to be submitted.

Term/paid up riders or additional amounts of insurance purchased through dividend options on a policy issued as a result of ordinary underwriting are to be submitted. Each rider is on a separate record with the same policy number as the base policy and has a unique segment number. The details on the rider record may differ from the corresponding details on the base policy record. If underwriting in addition to the base policy underwriting is done, the coverage is given its own policy number.

Terminations (both death and non-death) are to be submitted. Terminations are to include those that occurred in the observation year and were reported by April 1 of the year after the observation year.

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Plans of insurance should be carefully matched with the three-digit codes in item 19, Plan. These plans of insurance are important because they will be used not only for mortality experience data collection, but also for policyholder behavior experience data collection. It is expected that most policies will be matched to three-digit codes that specify a particular policy type rather than select a code that indicates a general plan type.

Each company is to submit data for in-force and terminated life insurance policies that are within the scope defined in Section 2.B except:

- i. For policies issued before Jan. 1, 1990, companies may certify that submitting data presents a hardship due to fields not readily available in their systems/databases or legacy computer systems that continue to be used for older issued policies and differ from computer systems for newer issued policies.
- ii. For policies issued on or after Jan. 1, 1990, companies must:
  - a) Document the percentage that the face amount of policies excluded are relative to the face amount of submitted policies issued on or after Jan. 1, 1990; and
  - b) Certify that this requirement presents a hardship due to fields not readily available in their systems/databases or legacy computer systems that continue to be used for older issued policies and differ from computer systems for newer issued policies.

#### F. Experience Data Reports Required by This Statistical Plan

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1. Using the data collected under this statistical plan, the Experience Reporting Agent will produce an experience data report that aggregates the experience data of all companies whose data have passed all of the validity and reasonableness checks outlined in Section 4 of VM-50 and has been determined by the Experience Reporting Agent to be acceptable to be used in the development of industry mortality experience.
2. The Experience Reporting Agent will provide to the SOA or other actuarial professional organizations an experience data report of aggregated experience that does not disclose a company's identity, which will be used to develop industry mortality experience and valuation mortality tables.
3. As long as a company is licensed in a state, that state insurance regulator will be given access to a company's experience data that is stored on a confidential database at the Experience Reporting Agent. Access by the state insurance regulator will be controlled by security credentials issued to the state insurance regulator by the Experience Reporting Agent.

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### Section 3: Statistical Plan for Group Annuity Mortality

#### A. Type of Experience Collected Under This Statistical Plan

The type of experience to be collected under this statistical plan is mortality experience.

#### B. Scope of Business Collected Under This Statistical Plan

1. The data for this statistical plan is annuity experience under group pension contracts, both fixed and variable. This includes ongoing pension plans, terminated pension plans (pension closeouts), partially guaranteed arrangements (such as certain Immediate Participation Guarantee contracts), and non-guaranteed arrangements. Such business is to include direct written business issued by a Company in the U.S. for lives in any country as well as reinsurance written by a Company in the U.S. for business outside the U.S. All values should be prior to any reinsurance ceded except for the situation defined in VM-51 Section 3.B.2. Assumption reinsurance of a line of business, where the assuming company is legally responsible for all benefits and claims paid, shall be included within the scope of this statistical plan.
2. In the event a reinsurer or TPA is responsible for administering a block of business, the reinsurer or TPA may submit that block of business on behalf of the direct writer. In this case, the reinsurer or TPA must be identified in Appendix 5 Item 1 - Submitting Company ID, and the direct writer must be identified in Appendix 5 Item 2 - NAIC Company Code of Direct Writer.
  - a. As defined in VM-50 Section 4.B.3, the reconciliation to company statistical and financial data for both the direct writing company and all reinsurers and/or TPAs must include lines indicating the amount of business that is being reported by the reinsurers and/or TPAs. The Experience Reporting Agent will compare the reconciliations for all business submitted by the direct writer and any reinsurers and/or TPAs to ensure that all business is included and that there is no double counting of records.
  - b. If an insurance company is required to submit its direct written business and it also has reinsurance assumed business, it should only submit the assumed

**Commented [PA3]:** The ACLI letter had these comments:  
 •Some states issue business solely under a group contract; are these certificates intended to be in scope?  
 •Will group VAs be included, or are only fixed annuities in scope?  
 •Will there be sub-categories to distinguish between other types of business?

The tables developed based on the Pri-2012 study included only private-sector data and it appears that the 2015-2018 Group Annuity Mortality study did also.

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business if asked to do so by the ceding company since some ceding companies may not have been selected for data submission.

3. The direct writing company is ultimately responsible for all the data submitted for its company.

### C. Criteria to Determine Companies That Are Required to Submit Experience Data

Companies required to submit experience data will be selected by the Life Actuarial (A) Task Force, based on achieving a target level of approximately 85% of industry mortality experience for group pension contracts. Data for plans having less than X lives shall be excluded.

Exemptions may be granted by the Experience Reporting Agent where appropriate, following consultation with the domestic insurance regulator.

### D. Process for Submitting Experience Data Under This Statistical Plan

Data for this statistical plan shall be submitted on an annual basis. Each company required to submit this data shall submit the data using the Regulatory Data Collection (RDC) online software submission application developed by the Experience Reporting Agent. For each data file submitted by a company, the Experience Reporting Agent will perform reasonability and completeness checks on the data, as defined in Section 4 of VM-50. The Experience Reporting Agent will notify the company within 30 days following the data submission of any possible errors that need to be corrected. The Experience Reporting Agent will compile and send a report listing potential errors that need correction to the company.

Data for this statistical plan for mortality will be compiled using a calendar year method. The reporting calendar year is the calendar year that the company submits the experience data. The observation calendar year is the calendar year of the experience data that is reported. The observation calendar year will be one year prior to the reporting calendar year. For example, if the current calendar year is 2026 and that is the reporting calendar year, the company is to report the experience data that was in-force or issued in calendar year 2025, which is the observation calendar year.

Given an observation calendar year of 20XX, the calendar year method requires reporting of experience data as follows:

- i. Report records in force during or issued during calendar year 20XX.
- ii. Report terminations that were incurred in calendar year 20XX and reported before April 1, 20XX+1. Companies may report terminations reported after April 1, 20XX+1 if they choose to do so.

For any reporting calendar year, the data call will occur during the second quarter, and data is to be submitted according to the requirements of the *Valuation Manual* in effect during that calendar year. Data submissions must be made by Sept. 30 of the reporting calendar year. Corrections of data submissions must be completed by Feb. 28 of the year following the reporting calendar year. The NAIC may extend either of these deadlines if it is deemed necessary.

### E. Experience Data Elements and Formats Required by This Statistical Plan

**Commented [PA4]:** This addresses the following ACLI comment:

- For business subject to third party administration and reinsurance, it would be helpful to clarify which entity is responsible for the data submission

**Commented [PA5]:** Is 85% the desired threshold?

For the Life data collection, the VM-51 selection criteria (based on premiums, claims, and groups) were complicated and caused confusion among companies. Also, it wasn't clear that NAIC staff would use the selection criteria to select the companies needed to achieve 85%. For PRT business, a relatively small number of companies will achieve 85%, so does LATF want to select them directly?

The ACLI letter had this comment:

- Minimum exposure thresholds should also be established to avoid significant effort for immaterial blocks of business and these thresholds may have to be defined by administrator, depending on the response to the first point (which was, who will be responsible for the data submission?).

NAIC response:

- Agreed that perhaps small blocks should be excluded. The Life selection criteria exempted tiny companies (<10 million premium) at the option of the group. They have all since dropped out.
- Since the direct writing company is responsible for the data submission (although TPAs may submit the data), participation thresholds should be set based on the direct writer rather than the TPA.

**Commented [PA6]:** Should small plans be excluded? This section excludes plans with less than X lives, where X is to be determined.

Many of the plans submitted for the SOA Pri-2012 study were small. The report indicates that 242 of the 402 plans each contributed fewer than 2,000 life-years of exposure over the five years of the study period.

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Companies subject to reporting pursuant to Section 3.C are required to complete the Experience Data Elements and Formats as defined in Appendix 5.

F. Experience Data Reports Required by This Statistical Plan

1. Using the data collected under this statistical plan, the Experience Reporting Agent will produce an experience data report that aggregates the experience data of all companies whose data have passed all the validity and reasonableness checks outlined in Section 4 of VM-50 and has been determined by the Experience Reporting Agent to be acceptable to be used in the development of industry mortality experience.
2. The Experience Reporting Agent will provide to the SOA or other actuarial professional organizations an experience data report of aggregated experience that does not disclose a company's identity, which will be used to develop industry mortality experience and valuation mortality tables.
3. As long as a company is licensed in a state, that state insurance regulator will be given access to a company's experience data that is stored on a confidential database at the Experience Reporting Agent. Access by the state insurance regulator will be controlled by security credentials issued to the state insurance regulator by the Experience Reporting Agent.

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**Appendix 5: Group Annuity Mortality Data Elements and Format**

The table below provides descriptions of the required data fields. Further details and examples are provided in a data dictionary located on the NAIC's website.

It is expected that companies may not have all the requested data elements, so certain data elements may be left blank or approximated, as noted in the Description column. If key fields necessary to perform an experience study are left blank (e.g. date of termination, date of death) or are inconsistent, the NAIC may make approximations as described in the data dictionary.

| ITEM     | MAXIMUM LENGTH | DATA ELEMENT                                       | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                       |
|----------|----------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>1</u> | <u>9</u>       | Submitting Company ID                              | ID number representing the company submitting this file.<br>If the company has an NAIC Company Code, then that code must be used.<br>If the company does not have an NAIC Company Code, the company's Federal Employer Identification Number (FEIN) must be used.<br>If the direct writer is the company submitting the data, Items 1 and 2 must contain the same value.          |
| <u>2</u> | <u>5</u>       | NAIC Company Code of the Direct Writer of Business | The NAIC Company Code of the company that wrote the business being reported.<br>In the case of assumption reinsurance where the assuming company is legally responsible for all benefits and claims paid, the assuming company is considered to be the direct writer.<br>If the direct writer is the company submitting the data file, Items 1 and 2 must contain the same value. |
| <u>3</u> | <u>4</u>       | Observation Year                                   | Enter Calendar Year of Observation                                                                                                                                                                                                                                                                                                                                                |
| <u>4</u> | <u>5</u>       | Plan ID                                            | Enter a unique number identifying the Plan.                                                                                                                                                                                                                                                                                                                                       |
| <u>5</u> | <u>9</u>       | Employer ID                                        | Enter the employer's Federal Employer Identification Number (FEIN).                                                                                                                                                                                                                                                                                                               |
| <u>6</u> | <u>5</u>       | NAICS Code                                         | Enter the employer's North American Industry Classification System (NAICS) Code. This indicates the employer's industry group and appears on Form 5500.<br><br>Leave blank if the employer does not have a NAICS code, or if it is unknown.                                                                                                                                       |
| <u>7</u> | <u>5</u>       | SIC Code                                           | Enter the employer's Standard Industrial Classification (SIC) Code. This indicates the employer's type of business and appears in its SEC filings.<br><br>Leave blank if the employer does not have a SIC code, or if it is unknown.                                                                                                                                              |
| <u>8</u> | <u>7</u>       | Size of Employer Group                             | Enter total number of covered employees.                                                                                                                                                                                                                                                                                                                                          |

**Commented [PA7]:** Approximations were used for the Pri-2012 study. This differs from the approach the NAIC uses for life insurance data (we ask companies to correct records that are blank or inconsistent, and if not corrected, they may be rejected).

**Commented [AP8]:** The NAICS code (from Form 5500) was used for the Pri-2012 study. The SIC code is included in this APF as well. Both are requested since employers may have one but not the other (e.g. are employers required to file Form 5500 after they purchase a group annuity contract?). The intent is to use this information to understand the collar type.

**Commented [PA9]:** Is this the number of records submitted, which in the case of a lift-out would only be part of the employer's covered employees? If so, this field is not needed. VM-50 requires control totals which will give us this information.

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| ITEM      | MAXIMUM LENGTH | DATA ELEMENT                                  | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------|----------------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>9</u>  | <u>1</u>       | Pension Risk Transfer (PRT) Type              | 1=Buy-out annuity, where the insurer makes monthly pension payments directly to the covered plan members<br>2=Buy-in annuity, where the insurer makes a monthly bulk pension payment to the pension fund which then pays covered plan members<br>3=Immediate Participation Guarantee<br>4=Other                                                                                                                                                                                                                                                                                                                                                                                                          |
| <u>10</u> | <u>1</u>       | Annuity Type                                  | 1=Fixed Annuity<br>2=Variable Annuity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <u>11</u> | <u>1</u>       | Structure                                     | 1=Separate Account, where assets are legally insulated from General Account claims<br>3=General Account                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <u>12</u> | <u>1</u>       | Guarantee Status                              | 1=Guaranteed<br>2=Non-Guaranteed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <u>13</u> | <u>1</u>       | Availability of Full and/or Partial Lump Sums | 1=No lump sums are available<br>2=Full and partial lump sums are available<br>3=Only full lump sums are available<br>4=Only partial lump sums are available<br>5=Full lump sums are available; Unknown whether partial lump sums are available<br>6=Unknown whether full lump sums are available; partial lump sums are available<br>7=Unknown whether full or partial lump sums are available                                                                                                                                                                                                                                                                                                           |
| <u>14</u> |                | Cost of Living Increases                      | 1=The PRT Type does not include a cost of living or inflation increase<br>2=The PRT Type includes a cost of living or inflation increase                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <u>15</u> | <u>2</u>       | Status Code                                   | 01 = Active Employee<br>A nondisabled plan participant who is actively employed and not yet receiving pension benefits (including those in plans that no longer have ongoing benefit accruals).<br><br>02 = Terminated Employee<br>A participant who is not an Active Employee, and is not receiving pension benefits, regardless of vesting status.<br><br>03 = Disabled, in Waiting Period<br><br>04 = Disabled and Retired<br>A retired participant receiving benefits who was disabled under the plan's terms at the time of their retirement. Note that under this definition, it is not possible to transition from Disabled and Retired to Retired status or vice versa. Once a participant has a |

**Commented [AP10]:** What is "variable annuity" intended to capture? Are these group pension risk transfer contracts written as immediate variable annuities, where the pension amount would vary based on the performance of a fund?

**Commented [AP11]:** What does "Guaranteed" refer to?

**Commented [PA12]:** Should data on cost of living increases be collected? It would identify records where the benefit amount may increase year-over-year.

**Commented [PA13]:** Should data be requested to capture whether an active employee terminated vested or nonvested? If they terminate nonvested, they will no longer be included in future observation years. If they terminate vested, they should be included in future observation years since they are entitled to receive pension benefits (when a lump sum is paid or they reach an age at which they can elect to receive a monthly pension).

The Pri-2012 study noted that:

Terminated participants (i.e., participants neither actively employed nor receiving pension benefits), regardless of vesting status, were not included in the study. This is because mortality experience for terminated vested participants is often not tracked with precision. The exposure for an Employee that terminated during the study period was included up to the date of termination.

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| ITEM | MAXIMUM LENGTH | DATA ELEMENT                | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------|----------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |                |                             | <p>status of Disabled Retiree, this status must be maintained for all future observation years.</p> <p>05=Disabled and Not Retired</p> <p>06=Recovered from Disability and Retired</p> <p>07=Recovered from Disability and Not Retired</p> <p>08=Retired<br/>A former Active Employee in benefit receipt who was not reported as disabled at the date of retirement.</p> <p>09=Retirement Stopped</p> <p>10=Lump Sum Paid</p> <p>11=Contingent Survivor<br/>A surviving beneficiary (of a former participant) who is older than age 17 and in benefit receipt.</p> <p>12=Contingent Survivor Deferred<br/>A surviving beneficiary (of a former participant) who is older than age 17 and not yet in benefit receipt.</p> <p>13=Contingent Survivor Stopped Payment</p> <p>14=Deceased Participant</p> <p>15=Deceased Contingent Survivor</p> |
| 16   | 20             | Participant ID              | Enter a unique identifying number for the participant. This must be carried through consistently for all observation years, including annual updates of the participant's status code and other data.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 17   | 8              | Participant's Date of Birth | Enter the numeric date in YYYYMMDD format.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 18   | 1              | Participant's Gender        | 1 = Male<br>2 = Female                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 19   | 8              | Original Date of Hire       | Enter the numeric date in YYYYMMDD format.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 20   | 8              | Most Recent Date of Hire    | Enter the numeric date in YYYYMMDD format.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

**Commented [AP14]:** Can plan participants receive monthly pension benefits if they are disabled and not retired?

**Commented [AP15]:** Is status 06 needed? The Pri-2012 study didn't allow the status to change from disabled to recovered for retirees.

**Commented [AP16]:** This is the Pri-2012 definition. Should this say "A former Active Employee or Terminated Vested Employee in benefit receipt..."?

**Commented [PA17]:** When would this status occur, and what status would they move into?

**Commented [PA18]:** When would this status occur, and what status would they move into?

**Commented [PA19]:** Why are two dates of hire needed?  
How will these dates be used?

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| ITEM      | MAXIMUM LENGTH | DATA ELEMENT                                 | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------|----------------|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>21</u> | <u>8</u>       | <u>Date of Issuance</u>                      | Enter the numeric date in YYYYMMDD format. This is the date the participant became eligible for the pension plan and became a plan member.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <u>22</u> | <u>1</u>       | <u>Participant's Collar Type</u>             | <p>1 = White Collar<br/>2 = Blue Collar<br/>3 = Unknown Collar Type</p> <p>Participants should be coded as White Collar if they were <b>both</b> salaried and nonunion employees.</p> <p>Participants should be coded as Blue Collar if they were <b>either</b> hourly or union employees.</p> <p>Note:<br/>Collar type should be submitted for individual participants where reliable.</p> <p>If the Collar Type is not known at an individual participant level, all plan's participants may be coded as White Collar or Blue Collar if at least 70% of the plan's participants meet the applicable criteria. If this is not the case, the collar type should be coded as Unknown.</p> |
| <u>23</u> | <u>9</u>       | <u>Participant's Annual Salary</u>           | <p>For Status Code = 1 (Active Employee), enter the participant's annual salary received during the observation year. For all other Status Codes, leave this field blank.</p> <p>For salaried employees, the participant's annual salary is defined as the base salary plus any bonuses and other awards (e.g. stock awards).</p> <p>For hourly employees, the participant's annual salary is defined as total hourly wages including any overtime pay.</p> <p>Note:<br/>If this field is left blank or is invalid, an assumption may be made by the NAIC (as described in the data dictionary) to approximate the participant's annual salary.</p>                                      |
| <u>24</u> | <u>7</u>       | <u>Participant's Monthly Accrued Benefit</u> | <p>Enter the participant's monthly accrued benefit if Status = 01 (Active Employee) or 02 (Terminated Employee). For all other Statuses, leave blank.</p> <p>Note:<br/>If this field is left blank or is invalid, an assumption may be made by the NAIC (as described in the data</p>                                                                                                                                                                                                                                                                                                                                                                                                    |

**Commented [PA20]:** Why do we need the date the participant became a plan member? How will this date be used?

**Commented [PA21]:** These are the definitions of White Collar and Blue Collar that were used in the Pri-2012 study.

**Commented [PA22]:** How should annual salary be defined? The Pri-2012 study noted:

RPEC attempted to collect information on the types of compensation included in salary by plan. However, the definitions received were very diverse and did not lend themselves to quantifiable adjustments that could be used to ensure a consistent salary definition throughout the study. RPEC was, therefore, unable to reflect these varying definitions of salary in its analysis.

**Commented [AP23]:** The Pri-2012 study included the following approximation methodology to be used if this field was left blank or was invalid:

If a given participant had a valid amount provided for a different observation year, that amount will be assumed for the year(s) in which the provided value was invalid or missing. Otherwise, the amount will be assumed to be the plan-wide average for the applicable gender and collar type. If these values were not provided for any participants for a given plan, the study-wide average for the applicable collar type, status and gender will be assumed.

Experience Reporting Formats

VM-51

| ITEM      | MAXIMUM LENGTH | DATA ELEMENT                                          | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------|----------------|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |                |                                                       | <u>dictionary) to approximate the participant's monthly accrued benefit.</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <u>25</u> | <u>8</u>       | <u>Date of Termination</u>                            | <p>Enter the numeric date in YYYYMMDD format if Status Code = 02 (Terminated Employee). Leave this field blank for all other Status Codes.</p> <p><u>This is the date of termination for an employee who terminated employment in the current observation year and was active in the previous observation year.</u></p> <p><u>Note:</u><br/>If this field is left blank or is invalid, an assumption may be made by the NAIC (as described in the data dictionary) to approximate the participant's date of termination.</p> |
| <u>26</u> | <u>8</u>       | <u>Participant's Date of Disability</u>               | Enter the numeric date in YYYYMMDD format if Status Code = 03, 04, 05, 06, or 07. For all other Status Codes, leave this field blank.                                                                                                                                                                                                                                                                                                                                                                                        |
| <u>27</u> | <u>8</u>       | <u>Participant's Date of Recovery from Disability</u> | Enter the numeric date in YYYYMMDD format if Status Code = 06 or 07. For all other Status Codes, leave this field blank.                                                                                                                                                                                                                                                                                                                                                                                                     |
| <u>28</u> | <u>2</u>       | <u>Normal Retirement Age</u>                          | <p>Enter the Normal Retirement Age as stated in the pension plan document. Leave this field blank if the Normal Retirement Date is more reliable.</p> <p><u>Note:</u> Either Item 28 (Normal Retirement Age) or Item 29 (Normal Retirement Date) must be provided, whichever is more reliable.</p>                                                                                                                                                                                                                           |
| <u>29</u> | <u>8</u>       | <u>Normal Retirement Date</u>                         | <p>Enter the Normal Retirement Date as determined based on the pension plan document in YYYYMMDD format. Leave this field blank if the Normal Retirement Age is more reliable.</p> <p><u>Note:</u> Either Item 28 (Normal Retirement Age) or Item 29 (Normal Retirement Date) must be provided, whichever is more reliable.</p>                                                                                                                                                                                              |
| <u>30</u> | <u>1</u>       | <u>Retirement Class</u>                               | <p>1 = On or After Normal Retirement Date</p> <p>2 = Before Normal Retirement Date</p> <p>3 = Unknown</p>                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <u>31</u> | <u>8</u>       | <u>Date of Retirement</u>                             | Enter the numeric date in YYYYMMDD format if Status Code = 04, 06, 08, or 09.                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <u>32</u> | <u>7</u>       | <u>Participant's Total Monthly Pension</u>            | <p>Enter the participant's total <u>monthly</u> pension. Include the monthly amount of any temporary life annuity, if applicable. Do not include any lump sum payments.</p> <p><u>For participants not currently receiving a monthly pension (e.g. for Status Code = 1), leave this field blank.</u></p>                                                                                                                                                                                                                     |

**Commented [AP24]:** The Pri-2012 study included the following approximation methodology to be used if this field was left blank or was invalid:

If a given participant had a valid amount provided for a different year, that amount will be assumed for the year(s) in which the provided value was invalid or missing. Otherwise, the amount will be assumed to be the plan-wide average for the applicable gender and collar type. If these values were not provided for any participants for a given plan, the study-wide average for the applicable collar type, status and gender will be assumed.

**Commented [AP25]:** The Pri-2012 study included the following approximation methodology:

Assume the date of termination occurs on the participant's birthday during the 12-month period during which the corresponding change in status code was observed. The purpose of this approach is to distribute imputed status change dates uniformly throughout the calendar year. This methodology is best illustrated by an example:

- 1/1/2012 status: Employee
- 1/1/2013 status: Terminated
- Date of birth: 8/1/1972
- Date of termination: Unknown

In this situation, the assumed date of termination would be 8/1/2012.

**Commented [AP26]:** How should this be populated if the plan offered subsidized early retirement (e.g. full benefits provided starting at age 62, but normal retirement age is 65)?

**Commented [AP27]:** Can this field be eliminated since we can determine it based on other fields?

How will this field be used?

Experience Reporting Formats

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| ITEM      | MAXIMUM LENGTH | DATA ELEMENT                                               | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------|----------------|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |                |                                                            | <p><u>Note:</u></p> <p>If this field is left blank or is invalid, an assumption may be made by the NAIC (as described in the data dictionary) to approximate the participant's total monthly pension.</p>                                                                                                                                                                                            |
| <u>33</u> | <u>1</u>       | <u>Benefit Type</u>                                        | <p><u>1 = Life Only</u></p> <p><u>This is defined as either Single Life with no Certain Period, or Joint &amp; Survivor with no Certain Period.</u></p> <p><u>2 = Life and Certain Period</u></p> <p><u>This is defined as either Single Life with a Certain Period, or Joint &amp; Survivor with a Certain Period.</u></p> <p><u>3=Cash Refund Annuity</u></p> <p><u>4=Unknown Benefit Type</u></p> |
| <u>34</u> | <u>1</u>       | <u>Survivor Options</u>                                    | <p><u>1 = None (Single Life Only)</u></p> <p><u>2 = 1-50% Joint &amp; Survivor</u></p> <p><u>3 = 51-75% Joint &amp; Survivor</u></p> <p><u>4 = 76-100% Joint &amp; Survivor</u></p>                                                                                                                                                                                                                  |
| <u>35</u> | <u>2</u>       | <u>Certain Period</u>                                      | <p><u>Enter the Certain Period in years if Benefit Type = 2.</u></p> <p><u>For all other Benefit Types, leave this field blank.</u></p>                                                                                                                                                                                                                                                              |
| <u>36</u> |                | <u>Temporary Life Annuity Indicator</u>                    | <p><u>Does the Participant's Total Monthly Pension include a Temporary Life Annuity, defined as an annuity that increases the monthly pension until a certain age or until death, whichever comes first?</u></p> <p><u>1 = Yes</u></p> <p><u>2 = No</u></p>                                                                                                                                          |
| <u>37</u> |                | <u>Temporary Life Annuity Termination Age</u>              | <p><u>If the Temporary Life Annuity Indicator = 1, enter the age at which the Temporary Life Annuity expires.</u></p>                                                                                                                                                                                                                                                                                |
| <u>38</u> | <u>8</u>       | <u>Minimum Effective Date of Payments in Calendar Year</u> | <p><u>Enter the numeric date in YYYYMMDD format.</u></p>                                                                                                                                                                                                                                                                                                                                             |
| <u>39</u> | <u>8</u>       | <u>Maximum Effective Date of Payments in Calendar Year</u> | <p><u>Enter the numeric date in YYYYMMDD format.</u></p>                                                                                                                                                                                                                                                                                                                                             |
| <u>40</u> | <u>8</u>       | <u>Date of Last Payment</u>                                | <p><u>Enter the numeric date in YYYYMMDD format if Status Code = 09 or 13. For all other Status Codes, leave blank.</u></p>                                                                                                                                                                                                                                                                          |

**Commented [AP28]:** The Pri-2012 study included the following approximation methodology:

If a given participant had a valid amount provided for a different observation year, that amount will be assumed for the year(s) in which the provided value was invalid or missing. Otherwise, the amount will be assumed to be the plan-wide average for the applicable gender and collar type. If these values were not provided for any participants for a given plan, the study-wide average for the applicable collar type, status and gender will be assumed.

**Commented [PA29]:** This data element was included in the ACLI's comment letter. What information is it intended to capture?

**Commented [PA30]:** This data element was included in the ACLI's comment letter. What information is it intended to capture?

**Commented [PA31]:** Is this the intent? What is this field meant to capture?

Experience Reporting Formats

VM-51

| ITEM      | MAXIMUM LENGTH | DATA ELEMENT                                    | DESCRIPTION                                                                                                                                                                                                                                                                                           |
|-----------|----------------|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>41</u> | <u>8</u>       | <u>Participant's Date of Death</u>              | Enter the numeric date in YYYYMMDD format if Status Code = 14. For all other Status Codes, leave blank.<br><br><u>Note:</u><br>If this field is left blank or is invalid, an assumption may be made by the NAIC (as described in the data dictionary) to approximate the participant's date of death. |
| <u>42</u> | <u>20</u>      | <u>Contingent Survivor Participant ID</u>       | Enter a unique identifying number for the contingent survivor. This must be carried through consistently for all observation years, including annual updates of the contingent survivor's status code and other data.<br><br>Leave this field blank if there is no contingent survivor.               |
| <u>43</u> | <u>8</u>       | <u>Contingent Survivor's Date of Birth</u>      | Enter the numeric date in YYYYMMDD format.<br><br>Leave this field blank if there is no contingent survivor.                                                                                                                                                                                          |
| <u>44</u> | <u>1</u>       | <u>Contingent Survivor's Gender</u>             | 1 = Male<br>2 = Female<br><br>Leave this field blank if there is no contingent survivor.                                                                                                                                                                                                              |
| <u>45</u> | <u>8</u>       | <u>Contingent Survivor's Benefit Start Date</u> | Enter the numeric date in YYYYMMDD format if Status Code = 11, 12, or 13.<br><br>Leave this field blank if there is no contingent survivor.                                                                                                                                                           |
| <u>46</u> | <u>8</u>       | <u>Contingent Survivor's Date of Death</u>      | Enter the numeric date in YYYYMMDD format if Status Code = 15. For all other Status Codes, leave blank.<br><br>Leave this field blank if there is no contingent survivor.                                                                                                                             |
| <u>47</u> | <u>5</u>       | <u>Zip Code</u>                                 | Enter participant's home zip code.                                                                                                                                                                                                                                                                    |

**Commented [AP32]:** The Pri-2012 study included the following approximation methodology:

Assume the date of death occurs on the participant's half birthday (rather than the participant's birthday). This methodology is best illustrated by an example:  
 • 1/1/2012 status: Employee  
 • 1/1/2013 status: Deceased  
 • Date of birth: 8/1/1972  
 • Date of death: Unknown

In this situation, the assumed date of death would be 2/1/2012. The reason for using the participant's half birthday pertains to the actuarial method for tabulating exposures, which will be used for this study. Under the actuarial method, a participant who dies during the study period is credited with exposure through the individual's next birthday. An assumed death date on the participant's birthday would, therefore, add a full extra year of exposure after death, whereas an assumed death date on the participant's half birthday only credits an additional half year after death. The additional half year is a better approximation for the average additional exposure credited to participants provided with valid dates of death.

**Commented [AP33]:** How will this be used? Could the participant's state of residence be used instead?

**Life Actuarial (A) Task Force/ Health Actuarial (B) Task Force  
Amendment Proposal Form\***

1. Identify yourself, your affiliation and a very brief description (title) of the issue.

Seong-min Eom, NJ Division of Insurance  
Pat Allison and Angela McNabb, NAIC

NAIC Collection of Group Annuity Mortality Experience

2. Identify the document, including the date if the document is “released for comment,” and the location in the document where the amendment is proposed:

VM-50  
Section 2.B  
Section 4.B

VM-51  
Section 2 title  
Section 2.C  
Section 2.D

New Section 3, Statistical Plan for Group Annuity Mortality

Appendices 1-4

New Appendix 5, Group Annuity Mortality Data Elements and Format

Deleted:

Deleted:

3. Show what changes are needed by providing a red-line version of the original verbiage with deletions and identify the verbiage to be deleted, inserted or changed by providing a red-line (turn on “track changes” in Word®) version of the verbiage. (You may do this through an attachment.)

See attachment.

Note:

The NAIC relied on the following SOA work product, parts of which were reproduced with permission and used to draft this amendment to the *Valuation Manual* for group annuitant mortality experience:

- 2015 – 2018 Group Annuity Mortality Experience Report, Copyright 2022, The Society of Actuaries and Society of Actuaries Research Institute, Chicago, Illinois.

Deleted:

4. State the reason for the proposed amendment. (You may do this through an attachment.)

This amendment establishes a Statistical Plan for Group Annuity Mortality and designates the NAIC as the Experience Reporting Agent.

\* This form is not intended for minor corrections, such as formatting, grammar, cross-references or spelling. Those types of changes do not require action by the entire group and may be submitted via letter or email to the NAIC staff support person for the NAIC group where the document originated.

NAIC Staff Comments:

| Dates: Received                                        | Reviewed by Staff | Distributed | Considered |
|--------------------------------------------------------|-------------------|-------------|------------|
|                                                        |                   |             |            |
| Notes: APF 2024-12: Draft for 2 <sup>nd</sup> exposure |                   |             |            |

## VM-50: Experience Reporting Requirements

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### Section 1: Overview

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#### A. Purpose of the Experience Reporting Requirements

The purpose of this section is to define the requirements pursuant to Section 13 of Model #820 for the submission and analysis of company data. It includes consideration of the experience reporting process, the roles of the relevant parties, and the intended use of and access to the data, and the process to protect the confidentiality of the data as outlined in Model #820.

#### B. PBR and the Need for Experience Data

The need for experience data includes but is not limited to:

1. PBR may require development of assumptions and margins based on company experience, industry experience or a blend of the two. The collection of experience data provides a database to establish industry experience tables or factors, such as valuation tables or factors as needed.
2. The development of industry experience tables provides a basis for assumptions when company data is not available or appropriate and provides a comparison basis that allows the state insurance regulator to perform reasonableness checks on the appropriateness of assumptions as documented in the actuarial reports.
3. The collection of experience data may assist state insurance regulators, reviewing actuaries, auditors and other parties with authorized access to the PBR actuarial reports to perform reasonableness checks on the appropriateness of principle-based methods and assumptions, including margins, documented in those reports.
4. The collection of experience data provides an independent check on the accuracy and completeness of company experience studies, thereby encouraging companies to establish a disciplined internal process for producing experience studies. Industry aggregate or sub-industry aggregate experience studies may assist an individual company for use in setting experience-based assumptions. As long as the confidentiality of each company's submitted results is maintained, a company may obtain results of a study on companies' submitted experience for use in formulating experience assumptions.
5. The collection of experience data will provide a basis for establishing and updating the assumptions and margins prescribed by regulators in the *Valuation Manual*.

6. The reliability of assumptions based on company experience is founded on reliable historical data from comparable characteristics of insurance policies including, but not limited to, underwriting standards and insurance policy benefits and provisions. As with all forms of experience data analysis, larger and more consistent statistical samples have a greater probability of producing reliable analyses of historic experience than smaller or inconsistent samples. To improve statistical credibility, it is necessary that experience data from multiple companies be combined and aggregated.
7. The collection of experience data allows state insurance regulators to identify outliers and monitor changes in company experience factors versus a common benchmark to provide a basis for exploring issues related to those differences.
8. PBR is an emerging practice and will evolve over time. Research studies other than those contemplated at inception may be useful to improvement of the PBR process, including increasing the accuracy or efficiency of models. Because the collection of experience data will facilitate these improvements, research studies of various types should be encouraged.
9. The collection of experience data is not intended as a substitute for a robust review of companies' methodologies or assumptions, including dialogue with companies' actuaries.

## Section 2: Statutory Authority and Experience Reporting Agent

### A. Statutory Authority

1. Model #820 provides the legal authority for the *Valuation Manual* to prescribe experience reporting requirements with respect to companies and lines of business within the scope of the model.
2. The statutes and regulations requiring data submissions generally apply to all companies licensed to sell life insurance, A&H insurance and deposit-type contracts. These companies must submit experience data as prescribed by the *Valuation Manual*.
3. Section 4A(5) of Model #820 defines the data to be collected to be confidential.

### B. Experience Reporting Agent

1. For the purposes of implementing the experience reporting required by state laws based on Section 13 of Model #820, an Experience Reporting Agent will be used for the purpose of collecting, pooling and aggregating data submitted by companies as prescribed by lines of business included in VM-51.
- ~~2. The NAIC is designated as Experience Reporting Agent for the Statistical Plan for Mortality beginning Jan. 1, 2020, and NAIC expertise in collecting and sorting data from multiple sources into a cohesive database in a secure and efficient manner, but the designation of the NAIC as Experience Reporting Agent does not preclude state insurance regulators from independently engaging other entities for similar data required under this *Valuation Manual* or other data purposes.~~
2. The NAIC is designated as Experience Reporting Agent for the following Statistical Plans:

50-1

- a. Life Insurance Mortality, beginning Jan. 1, 2020
- b. Group Annuity Mortality, beginning Jan. 1, 2027.

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- 3. The designation of the NAIC as Experience Reporting Agent does not preclude state insurance regulators from independently engaging other entities for similar data required under this *Valuation Manual* or other data purposes.
- 4. The NAIC shall collect an annual fee from companies participating in the data collections.

### Section 3: Experience Reporting Requirements

#### A. Statistical Plans

- 1. Consistent with state laws based on Section 13 of Model #820, the Experience Reporting Agent shall collect experience data based on statistical plans defined in the *Valuation Manual*.
- 2. Statistical plans are detailed instructions that define the type of experience data being collected (e.g., mortality; elective policyholder behavior, such as surrenders, lapses, premium payment patterns, etc.; and company expense data, such as commissions, policy expenses, overhead expenses etc.). The state insurance regulators serving on the Life Actuarial (A) Task Force and Health Actuarial (B) Task Force, or any successor body, will be responsible for prescribing the requirements for any statistical plan by applicable line of business. For each type of experience data being collected, the statistical plan will define the data elements and format of each data element, as well as the frequency of the collection of experience data. The statistical plan will define the process and the due dates for submitting the experience data. The statistical plan will define criteria that will determine which companies must submit the experience data. The statistical plan will also define the scope of business that is to be included in the experience data collection, such as lines of business, product types, types of underwriting, etc. Statistical plans are defined in VM-51 of the *Valuation Manual*. Statistical plans will be added to VM-51 of the *Valuation Manual* when they are ready to be implemented. Additional data elements and formats to be collected will be added as necessary, in subsequent revisions to the *Valuation Manual*.
- 3. Data must conform to common data definitions. Standard definitions provide for stable and reliable databases and are the basis of meaningful aggregated insurance data. This will be accomplished through a uniform set of suggested minimum experience reporting requirements for all companies.

#### B. Role and Responsibilities of the Experience Reporting Agent

- 1. Based on requirements of VM-51, the Experience Reporting Agent may design its data collection procedures to ensure it is able to meet these regulatory requirements. The Experience Reporting Agent will provide sufficient notice to reporting companies of changes, procedures and error tolerances to enable the companies to adequately prepare for the data submission.

2. The Experience Reporting Agent will aggregate the experience of companies using a common set of classifications and definitions to develop industry experience tables.
3. The Experience Reporting Agent will seek to enter into agreements with a group of state insurance departments for the collection of information under statistical plans included in VM-51. The number of states that contract with the Experience Reporting Agent will be based on achieving a target level of industry experience prescribed by VM-51 for each line of business in preparing an industry experience table.
  - a. The agreement between the state insurance department(s) and the Experience Reporting Agent will be consistent with any data collection and confidentiality requirements included within Model #820 and the *Valuation Manual*. Those state insurance departments seeking to contract with the Experience Reporting Agent will inform the Experience Reporting Agent of any other state law requirements, including laws related to the procurement of services that will need to be considered as part of the contracting process.
  - b. Use of the Experience Reporting Agent by the contracting state insurance departments does not preclude those state insurance departments or any other state insurance departments from contracting independently with another Experience Reporting Agent for similar data required under this *Valuation Manual* or other data purposes.
4. The Life Actuarial (A) Task Force or Health Actuarial (B) Task Force will be responsible for the content and maintenance of the experience reporting requirements. The Life Actuarial (A) Task Force or Health Actuarial (B) Task Force or a working group will monitor the data definitions, quality standards, appendices and reports described in the experience reporting requirements to assure that they take advantage of changes in technology and provide for new regulatory and company needs.
5. To ensure that the experience reporting requirements will continue to be useful, the Life Actuarial (A) Task Force or Health Actuarial (B) Task Force will seek to review each statistical plan on a periodic basis at least once every five years. The Life Actuarial (A) Task Force or Health Actuarial (B) Task Force should have regular dialogue, feedback and discussion of this topic. In seeking feedback and engaging in discussions, the Life Actuarial (A) Task Force or Health Actuarial (B) Task Force shall include a broad range of data users, including state insurance regulators, consumer representatives, members of professional actuarial organizations, large and small companies, and insurance trade organizations.
6. The Experience Reporting Agent will obtain and undergo at least annual external audits to validate that controls with respect to data security and related topics are consistent with industry standards and best practices. The Experience Reporting Agent will provide a copy of any report prepared in connection with such an audit, upon a company's request. In the event of a material deficiency identified in the external audit or in the event of an identified security breach affecting the Experience Reporting Data, the Experience Reporting Agent shall notify the NAIC, and the states that have directed the Experience Reporting Agent to

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collect this information, of the nature and extent of such an issue. In the event of an identified security breach affecting Experience Reporting Data, the Experience Reporting Agent shall also notify any insurer whose data was affected. Upon good cause shown, the Experience Reporting Agent will take reasonable actions to protect the data under its control, including that the data submission process may be suspended until the security issue has been remediated. If data submission is suspended under this section, the Experience Reporting Agent will work with the states that have directed collection to issue appropriate guidance modifying the requirements of VM 51, Section 2.D. The term “good cause” shall mean that there is the chance of irreparable harm upon continuing the transmission of the data to the Experience Reporting Agent. Once the security issue has been remediated, the Experience Reporting Agent shall notify the NAIC and the states that have directed the Experience Reporting Agent to collect this information. The Experience Reporting Agent shall work in conjunction with the NAIC and the states that have directed the Experience Reporting Agent to collect this information to develop a revised data submission schedule for any deferred submissions. The revised schedule shall provide for reasonable timing for companies to provide such data.

C. Role of Other Organizations

The Experience Reporting Agent may ask for other organizations to play a role for one or more of the following items, including the execution of agreements and incorporation of confidentiality requirements where appropriate:

1. Consult with the NAIC (as appropriate) in the design and implementation of the experience retrieval process;
2. Assist with the data validation process for data intended to be forwarded to the SOA or other actuarial professional organizations to develop industry experience tables;
3. Analyze data, including any summarized or aggregated data, produced by the Experience Reporting Agent;
4. Create initial experience tables and any revised tables;
5. Provide feedback in the development and evaluation of requests for proposals for services related to the reporting of experience requirement;
6. Create statutory valuation tables as appropriate and necessary;
7. Determine and produce additional industry experience tables or reports that might be suggested by the data collected.
8. Work with the Life Actuarial (A) Task Force or Health Actuarial (B) Task Force, in accordance with the *Valuation Manual* governance process, in developing new reporting formats and modifying current experience reporting formats;
9. Support a close working relationship among all parties having an interest in the success of

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the experience reporting requirement.

#### Section 4: Data Quality and Ownership

##### A. General Requirements

1. The quality, accuracy and consistency of submitted data is key to developing industry experience tables that are statistically credible and represent the underlying emerging experience. Statistical procedures cannot easily detect certain types of errors in reporting of data. For example, if an underwriter fails to evaluate the proper risk classification for an insured, then the “statistical system” has little chance of detecting such an error unless the risk classification is somehow implausible.
2. To ensure data quality, coding a policy, loss, transaction or other body of data as anything other than what it is known as is prohibited. This does not preclude a company from coding a transaction with incomplete detail and reporting such transactions to the Experience Reporting Agent, but there can be nothing that is known to be inaccurate or deceptive in the reporting. An audit of a company’s data submitted to the Experience Reporting Agent under a statistical plan in VM-51 can include comparison of submitted data to other company files.
3. When the Experience Reporting Agent determines that the cause of an edit exception could produce systematic errors, the company must correct the error and respond in a timely fashion, with priority given to errors that have the largest likelihood to affect a significant amount of data. When an error is found that has affected data reported to the Experience Reporting Agent, the company shall report the nature of the error and the nature of its likely impact to the Experience Reporting Agent. Retrospective correction of data subject to systematic errors shall be done when the error affects a significant amount of data that is still being used for regulatory purposes and it is reasonably practical to make the correction through the application of a computer program or a procedure applied to the entire data set without the need to manually examine more than a small number of individual records.

##### B. Specific Requirements

1. Once the data file is submitted by the company, the Experience Reporting Agent will perform a validity check of the data elements within each data record in the data file for proper syntax and verify that required data elements are populated. The Experience Reporting Agent will notify the company of all syntax errors and any missing data elements that are required. Companies are required to respond to the Experience Reporting Agent by submitting a corrected data file. The Experience Reporting Agent will provide sufficient notice to reporting companies of changes, procedures and error tolerances to enable the companies to adequately prepare for the data submission.
2. Each submission of data filed by a company with the Experience Reporting Agent shall be balanced against a set of control totals provided by the company with the data submission. ~~At a minimum, these control totals shall include applicable record counts, claim counts, amounts insured and claim amounts.~~ Any submission that does not balance to the control totals shall be referred to the company for review and resolution.

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- a. Control totals for the Statistical Plan for Life Insurance Mortality shall include applicable record counts, claim counts, amounts insured, and claim amounts.
  - b. Control totals for the Statistical Plan for Group Annuity Mortality shall include applicable certificate counts and annual income inforce.
3. Each company submitting experience data and each company on whose behalf data is being submitted as required in VM-51 will perform a reconciliation between its submitted experience data with its statistical and financial data, and provide an explanation of differences, to the Experience Reporting Agent.
  - a. For the Statistical Plan for Life Insurance Mortality, ~~the~~ the reconciliation must include policy count and insurance amount.
  - b. For the Statistical Plan for Group Annuity Mortality, the reconciliation must include certificate counts, annual income inforce, and statutory reserves.
4. **Third-Party Administration Reporting**
  - a. If a third-party administrator (TPA) that is not an insurance company or an insurance company not required to submit its direct data is submitting data on behalf of an insurance company, the reconciliation will consist of separate lines identifying each insurance company for whom this entity is submitting data.
  - b. If the TPA is an insurance company that is required to submit its direct data, the reconciliation must include separate lines identifying each additional company whose data is being submitted.
  - c. The reconciliation to company statistical and financial data for both the direct writer and the reinsurer or TPA must include lines indicating the amount of business that is being reported by the reinsurer or TPA. The NAIC will use this information to confirm that all in-scope business is reported and that there is no double counting of policies.
5. Validity checks are designed to identify:
  - a. Improper syntax or incomplete coding (e.g., a numeric field that is not numeric, missing elements of a date field);
  - b. Data elements containing codes that are not contained within the set of possible valid codes;
  - c. Data elements containing codes that are contained within the set of possible valid codes but are not valid in conjunction with another data element code
  - d. Required data elements that are not populated.
6. Where quality would not appear to be significantly compromised, the Experience Reporting Agent may use records with missing or invalid data if such invalid or missing data do not involve a field that is relevant or would affect the credibility of the report. For companies with a body of data for a state, line of business, product type or observation period that fails to meet these standards, the Experience Reporting Agent will use its discretion, with regulatory disclosure of key decisions made, regarding the omission of the entire body of data or only including records with valid data. Completeness of reports is desirable, but not at the risk of including a body of data that appears to have an unreasonably high chance of significant errors.

7. Errors of a consistent nature are referred to as “systematic.” Incorrect coding instructions can introduce errors of a consistent nature. Programming errors within the data processing system of ~~insurer~~ the insurance company can also produce systematic miscoding as the system converts data to the required formats for experience reporting. Most systematic errors will produce data that, when reviewed using tests designed to reveal various types of systematic errors, will appear unreasonable and likely to be in error. In addition, some individual coding errors may produce erroneous results that show up when exposures and losses are compared in a systematic fashion. Such checking often cannot, however, provide a conclusive indication that data with unusual patterns is incorrect. The Experience Reporting Agent will perform tests and look at trends using previously reported data to determine if systematic errors or unusual patterns are occurring.
8. The Experience Reporting Agent will undertake reasonability checks that include the comparison of aggregate and company experience for underwriting class and type of coverage data elements for the current reporting period to company and aggregate experience from prior periods for the purpose of identifying potential coding or reporting errors. When reporting instructions are changed, newly reported data elements shall be examined to see that they correlate reasonably with data elements reported under the old instructions.
9. At a minimum, reasonability checks by the Experience Reporting Agent will include:
  - a. An unusually large percentage of company data reported under a single or very limited number of categories;
  - b. Unusual or unlikely reporting patterns in a company’s data;
  - c. Claim amounts that appear unusually high or low for the corresponding exposures;
  - d. Reported claims without corresponding policy values and exposures;
  - e. Unreasonable loss frequencies or amounts in comparison to ranges of expectation that recognize statistical fluctuation;
  - f. Unusual shifts in the distribution of business from one reporting period to the next.
10. If a company’s unusual pattern under Section 4.B.8.a, Section 4.B.8.b or Section 4.B.8.c is verified as accurate (that is, the reason for the apparent anomaly is an unusual mix of business), then it is not necessary that a similar pattern for the same company be reconfirmed year after year.
11. The Experience Reporting Agent will keep track of the results of the validity and reasonability checks and may adjust thresholds in successive reporting years to maintain a reasonable balance between the magnitude of errors being found and the cost to companies.
12. Results that may indicate a likelihood of critical indications, as defined below, will be reported to the company with an explanation of the unusual findings and their possible significance. When the possible or probable errors appear to be of a significant nature, the Experience Reporting Agent will indicate to the company that this is a “critical indication.”

“Critical indications” are those that, if not corrected or confirmed, would leave a significant degree of doubt whether the affected data should be used in reports to the state insurance regulator and included in industry databases. It is intended that Experience Reporting Agents will have reasonable flexibility to implement this under the direction of the state insurance regulators. Also, under the direction of the state insurance regulators, the Experience Reporting Agent may grade the severity of indications, or it may simply identify certain indications as critical. While companies are expected to undertake a reasonable examination of all indications provided to them, they are not required to respond to every indication except for those labeled by the Experience Reporting Agent as “critical.”

13. The Experience Reporting Agent will use its discretion regarding the omission of data from reports owing to the failure of an ~~insurer~~-insurance company to respond adequately to unusual reasonability indications. Completeness of reports is desirable, but not at the risk of including data that appears to have an unreasonably high chance of containing significant errors.
14. Companies shall acknowledge and respond to reasonability queries from the Experience Reporting Agent. This shall include specific responses to all critical indications provided by the Experience Reporting Agent. Other indications shall be studied for apparent errors, as well as for indications of systematic errors. Corrections for critical indications shall be provided to the Experience Reporting Agent or, when a correction is not feasible, the extent and nature of the error shall be reported to the Experience Reporting Agent.
15. The Experience Reporting Agent will calculate Actual to Expected (A/E) ratios for each company based on the records deemed acceptable after the data review process has been completed. An accredited actuary is required to review and sign off on the reasonableness of the A/E ratios. The company shall correct and resubmit their data if A/E ratios are found to be unreasonable.

C. Ownership of Data

1. Experience data submitted by companies to the Experience Reporting Agent will be considered the property of the companies submitting such data, but the recognition of such ownership will not affect the ability of state insurance regulators or the NAIC to use such information as authorized by state laws based on Model #820 or the *Valuation Manual*, or, in case of state insurance regulators, for solvency oversight, financial examinations and financial analysis.
2. The Experience Reporting Agent will be responsible for maintaining data, error reports, logs and other intermediate work products, and reports for use in processing, documentation, production and reproduction of reports provided to state insurance regulators in accordance with the *Valuation Manual*. The Experience Reporting Agent will be responsible for demonstrating such reproducibility at the request of state insurance regulators or an auditor designated by state insurance regulators.

## Section 5: Experience Data

### A. Introduction

1. Using the data collected under statistical plans, as defined in the *Valuation Manual*, the Experience Reporting Agent produces aggregate databases as defined by this *Valuation Manual*. The Experience Reporting Agent, and/or other persons assisting the Experience Reporting Agent, will utilize those databases to produce industry experience tables and reports as defined in the *Valuation Manual*. In order to ensure continued relevance of reports, each defined data collection and resulting report structure shall be reviewed for usefulness at least once every five years since initial adoption or prior review.
2. Data compilations are evaluated according to four distinct, and often competing, standards: quality, completeness, timeliness and cost. In general, quality is a primary goal in developing any statistical data report. The priorities of the other three standards vary according to the purpose of the report.
3. The Experience Reporting Agent may modify or enlarge the requirements of the *Valuation Manual*, through recommendation to the Life Actuarial (A) Task Force or Health Actuarial (B) Task Force and in accordance with the *Valuation Manual* governance process for information to accommodate changing needs and environments. However, in most cases, changes to existing data reporting systems will be feasible only to provide information on future transactions. Requirements to submit new information may require that companies change their systems. Also, the Experience Reporting Agent may need several years before it can generate meaningful data meeting the new requirements with matching claims and insured amounts. The exact time frames for implementing new data requirements and producing reports will vary depending on the type of reports.

### B. Design of Reports Linked to Purpose

Fundamental to the design of each report is an evaluation of its purpose and use. The Life Actuarial (A) Task Force and Health Actuarial (B) Task Force shall specify model reports responding to general regulatory needs. These model reports will serve the basic informational needs of state insurance regulators. To address a particular issue or problem, a state insurance regulator may have to request to the Life Actuarial (A) Task Force or Health Actuarial (B) Task Force that additional reports be developed.

### C. Basic Report Designs

1. The Life Actuarial (A) Task Force or Health Actuarial (A) Task Force will designate basic types of reports to meet differing needs and time frames. Each statistical plan defined in VM-51 of the *Valuation Manual* will provide a detailed description of the reports, the frequency and time frame for the reports. Statistical compilations are anticipated to be the primary reports.
2. Statistical compilations are aggregate reports that generally match appropriate exposure amounts and transaction event amounts to evaluate the recent experience for a line of business. For example, a statistical compilation of mortality experience would match

insurance face amounts exposed to death with actual death claims paid. Here the exposure amount is the total insurance face amount exposed to death, and the transaction event amounts would be the death claims paid. As another example, a statistical compilation of surrender experience would match total cash surrender amounts exposed to surrender with actual surrender amounts paid. Here the exposure amount is the total cash surrender amounts that could be surrendered, and the transaction event amounts would be the total surrender amounts actually paid. Statistical compilations can be performed for the industry or for the state of domicile.

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3. In addition to statistical compilations, state insurance regulators can specify additional reports based on elements in the statistical plans in VM-51. State insurance regulators can also use statistical compilations and additional reports to evaluate non-formulaic assumptions.
4. The Life Actuarial (A) Task Force or Health Actuarial (B) Task Force will specify the reports to be provided to the professional actuarial associations to fulfill their roles as specified in Section 3.C of this VM-50. In general, the reports are expected to include statistical compilation at the industry level.
5. State insurance regulators can use the reports to review long-term trends. Aggregate experience results may indicate areas warranting additional investigation.

#### D. Supplemental Reports

1. For specific lines of business and types of experience data, state insurance regulators may request additional reports from the Experience Reporting Agent. State insurance regulators also may request custom reports, which may contain specific data or experience not regularly produced in other reports.
2. The regulator and the Experience Reporting Agent must negotiate time schedules for producing supplemental reports. The information in these reports is limited by the amount of data actually available and the manner in which it has been reported.

#### E. Reports to State Insurance Departments

The Experience Reporting Agent will periodically provide the following reports to state insurance departments:

1. A list of companies whose data is included in the compilation.
2. A list of companies whose data was excluded from the compilation because it fell outside of the tolerances set for missing or invalid data, or for any other reason.

### Section 6: Confidentiality of Data

#### A. Confidentiality of Experience Data

1. The confidentiality of the experience data, experience materials and related information

collected pursuant to the *Valuation Manual* is governed by state laws based on Section 14.A.(5) of Model #820. The following information is considered “confidential information” by state laws based on Section 14A(5) of the Model #820:

Any documents, materials, data and other information submitted by a company under Section 13 of [the Standard Valuation Law] (collectively, “experience data”) and any other documents, materials, data and other information, including, but not limited to, all working papers, and copies thereof, created or produced in connection with such experience data, in each case that include any potentially company-identifying or personally identifiable information, that is provided to or obtained by the commissioner (together with any “experience data,” the “experience materials”) and any other documents, materials, data and other information, including, but not limited to, all working papers, and copies thereof, created, produced or obtained by or disclosed to the commissioner or any other person in connection with such experience materials.

2. Nothing in the experience reporting requirements or elsewhere within the *Valuation Manual* is intended to, or should be construed to, amend or supersede any applicable statutory requirements, or otherwise require any disclosure of confidential data or materials that may violate any applicable federal or state laws, rules, regulations, privileges or court orders applicable to such data or materials.

B. Treatment of Confidential Information

1. Confidential information may be shared only with those individuals and entities specified in state laws based on Section 14B(3) of Model #820. Any agreement between a state insurance department and the Experience Reporting Agent will address the extent to which the Experience Reporting Agent is authorized to share confidential information consistent with state law.
2. The Experience Reporting Agent may be required to use confidential information in order to prepare compilations of aggregated experience data that do not permit identification of individual company experience or personally identifiable information. These reports of aggregated information, including those reports referenced in Section 5 of VM-50, are not considered confidential information, and the Experience Reporting Agent may make publicly available such reports. Reports using aggregate experience data will have sufficient diversification of data contributors to avoid identification of individual companies.
3. Consistent with state laws based on Section 14B(3) of Model #820 and any agreements between a state insurance department and the Experience Reporting Agent, access to the confidential information will be limited to:
  - a. State, federal or international regulatory agencies;
  - b. The company with respect to confidential information it has submitted, and any reports prepared by the Experience Reporting Agent based on such confidential information;
  - c. The NAIC, and its affiliates and subsidiaries;

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- d. Auditor(s) of the Experience Reporting Agent for purposes of the experience reporting function outlined in this VM-50; and
- e. Other individuals or entities, including contractors or subcontractors of the Experience Reporting Agent, otherwise assisting the Experience Reporting Agent or state insurance regulators in fulfilling the purposes of VM-50. These other individuals or entities may provide services related to a variety of areas of expertise, such as assisting with performing industry experience studies, developing valuation mortality tables, data editing and data quality review. These other individuals and entities shall be subject to the same standards as the Experience Reporting Agent with respect to the maintenance of confidential information.

## VM-51: Experience Reporting Formats

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### Section 1: Introduction

- A. The experience reporting requirements are defined in Section 3 of VM-50. The experience reporting requirements state that the Experience Reporting Agent will collect experience data based on statistical plans that are defined in VM-51 of the *Valuation Manual*. Statistical plans are to be added to VM-51 of the *Valuation Manual* when they are ready to be implemented.
- B. Each statistical plan shall contain the following information:
  1. The type of experience data to be collected (e.g., mortality experience; policy behavior experience, such as surrenders, lapses, conversions, premium payment patterns, etc.; and company expense experience, such as commission expense, policy issue and maintenance expense, company overhead expenses etc.);
  2. The scope of business to be included in the experience data to be collected (e.g., line(s) of business, such as individual or group, life, annuity or health; product type(s), such as term, whole life, universal life, indexed life, variable life, fixed annuity, indexed annuity, variable annuity, LTC or disability income; and type of underwriting, such as medically underwritten, simplified issue (SI), GI, accelerated, etc.);
  3. The criteria for determining which companies or legal entities must submit the experience data to be collected;
  4. The process for submitting the experience data to be collected, which will include the frequency of the data collection, the due dates for data collection and how the data is to be submitted to the Experience Reporting Agent;
  5. The individual data elements and format for each data element that will be contained in each experience data record, along with detailed instructions defining each data element or how to code each data element. Additional information may be required, such as questionnaires and plan code forms that will assist in defining the individual data elements that may be unique to each company or legal entity submitting such experience data elements;

6. The experience data reports to be produced.

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## Section 2: Statistical Plan for Life Insurance Mortality

### A. Type of Experience Collected Under This Statistical Plan

The type of experience to be collected under this statistical plan is mortality experience.

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### B. Scope of Business Collected Under This Statistical Plan

1. The data for this statistical plan is the individual ordinary life line of business. Such business is to include direct written business issued in the U.S. All values should be prior to any reinsurance ceded except for the situation defined in VM-51 Section 2.B.2. Assumption reinsurance of an individual ordinary life line of business, where the assuming company is legally responsible for all benefits and claims paid, shall be included within the scope of this statistical plan. The ordinary life line of business does not include separate lines of business, such as SI/GI, worksite, individually solicited group life, direct response, final expense, preneed, home service, credit life, and corporate-owned life insurance (COLI)/bank-owned life insurance (BOLI)/charity-owned life insurance (CHOLI).
2. In the event a reinsurer or TPA is responsible for administering a block of business, the reinsurer or TPA may submit that block of business on behalf of the direct writer. In this case, the reinsurer or TPA must be identified in Appendix 4 Item 1 - Submitting Company ID, and the direct writer must be identified in Appendix 4 Item 2 - NAIC Company Code of Direct Writer.
  - a. As defined in VM-50 Section 4.B.3, the reconciliation to company statistical and financial data for both the direct writing company and all reinsurers and/or TPAs must include lines indicating the amount of business that is being reported by the reinsurers and/or TPAs. The Experience Reporting Agent will compare the reconciliations for all business submitted by the direct writer and any reinsurers and/or TPAs to ensure that all business is included and that there is no double counting of policies.
  - b. If an insurance company is required to submit its direct written business and it also has reinsurance assumed business, it should only submit the assumed business if asked to do so by the ceding company since some ceding companies may not have been selected for data submission.
3. The direct writing company is ultimately responsible for all the data submitted for its company.

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### C. Criteria to Determine Companies That Are Required to Submit Experience Data

The Experience Reporting Agent, under the direction of the Life Actuarial (A) Task Force, will select companies that are required to submit experience data. The selection of companies will be based on achieving a target level of approximately 85% of industry mortality experience in scope. Companies selected to submit mortality experience data are expected to continue reporting their experience in future years, barring circumstances justifying an exemption. The list of companies selected is subject to change. Additional companies may be selected to maintain the target level of industry experience. Any additional companies selected will be given sufficient notice to prepare for the data submission.

Companies with less than \$50 million of direct individual life premiums shall be exempted from reporting experience data required under this statistical plan. This threshold for exemption shall be measured based on aggregate premium volume of all affiliated companies and shall be reviewed annually and be subject to change by the Experience Reporting Agent. At its option, a group of nonexempt affiliated companies may exclude from these requirements affiliated companies with less than \$10 million direct individual life premium provided that the affiliated group remains nonexempt.

Additional exemptions may be granted by the Experience Reporting Agent where appropriate, following consultation with the domestic insurance regulator. ~~based on achieving a target level of approximately 85% of industry experience for the type of experience data being collected under this statistical plan.~~

#### D. Process for Submitting Experience Data Under This Statistical Plan

Data for this statistical plan for mortality shall be submitted on an annual basis. Each company required to submit this data shall submit the data using the Regulatory Data Collection (RDC) online software submission application developed by the Experience Reporting Agent. For each data file submitted by a company, the Experience Reporting Agent will perform reasonability and completeness checks, as defined in Section 4 of VM-50, on the data. The Experience Reporting Agent will notify the company within 30 days following the data submission of any possible errors that need to be corrected. The Experience Reporting Agent will compile and send a report listing potential errors that need correction to the company.

Data for this statistical plan for mortality will be compiled using a calendar year method. The reporting calendar year is the calendar year that the company submits the experience data. The observation calendar year is the calendar year of the experience data that is reported. The observation calendar year will be one year prior to the reporting calendar year. For example, if the current calendar year is 2024 and that is the reporting calendar year, the company is to report the experience data that was in-force or issued in calendar year 2023, which is the observation calendar year. ~~For the 2024 reporting calendar year, companies who are required to submit data for this statistical plan for mortality will be required to submit two observation calendar years of data, namely observation calendar year 2022 and observation calendar year 2023. For reporting calendar years after 2024, companies who are required to submit data for this statistical plan for mortality will be required to submit one observation calendar year of data.~~

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Given an observation calendar year of 20XX, the calendar year method requires reporting of experience data as follows:

- i. Report policies in force during or issued during calendar year 20XX.
- ii. Report terminations that were incurred in calendar year 20XX and reported before April 1, 20XX+1. Companies may report terminations reported after April 1, 20XX+1 if they choose to do so. However, exclude rescinded policies (e.g., 10-day free look exercises) from the data submission.

For any reporting calendar year, the data call will occur during the second quarter, and data is to be submitted according to the requirements of the *Valuation Manual* in effect during that calendar year. Data submissions must be made by Sept. 30 of the reporting calendar year. Corrections of data submissions must be completed by Feb. 28 of the year following the reporting calendar year. The NAIC may extend either of these deadlines if it is deemed necessary.

E. Experience Data Elements and Formats Required by This Statistical Plan

Companies subject to reporting pursuant to the criteria stated in Section 2.C are required to complete the data forms in Appendix 1, Appendix 2 and Appendix 3 as appropriate, and also complete the Experience Data Elements and Formats as defined in Appendix 4.

The data should include policies issued as standard, substandard (optional) or sold within a preferred class structure. Preferred class structure means that, depending on the underwriting results, a policy could be issued in classes ranging from a best preferred class to a residual standard class. Policies issued as part of a preferred class structure are not to be classified as substandard.

Policies issued as conversions from term or group contracts should be included. For these converted policies, the issue date should be the issue date of the converted policy, and the underwriting field will identify them as issues resulting from conversion.

Generally, each policy number represents a policy issued as a result of ordinary underwriting. If a single life policy, the base policy on a single life has the policy number and a segment number of 1. On a joint life policy, each life has separate records with the same policy number. The base policy on the first life has a segment number of 1, and the base policy on the second life has a segment number of 2. Policies that cover more than two lives are not to be submitted.

Term/paid up riders or additional amounts of insurance purchased through dividend options on a policy issued as a result of ordinary underwriting are to be submitted. Each rider is on a separate record with the same policy number as the base policy and has a unique segment number. The details on the rider record may differ from the corresponding details on the base policy record. If underwriting in addition to the base policy underwriting is done, the coverage is given its own policy number.

Terminations (both death and non-death) are to be submitted. Terminations are to include those that occurred in the observation year and were reported by March 31 of the year after the observation year.

Plans of insurance should be carefully matched with the three-digit codes in item 20, Plan. These plans of insurance are important because they will be used not only for mortality experience data collection, but also for policyholder behavior experience data collection. It is expected that most policies will be matched to three-digit codes that specify a particular policy type rather than select a code that indicates a general plan type.

Each company is to submit data for in-force and terminated life insurance policies that are within the scope defined in Section 2.B except:

- i. For policies issued before Jan. 1, 1990, companies may certify that submitting data presents a hardship due to fields not readily available in their systems/databases or legacy computer systems that continue to be used for older issued policies and differ from computer systems for newer issued policies.
- ii. For policies issued on or after Jan. 1, 1990, companies must:
  - a) Document the percentage that the face amount of policies excluded are relative to the face amount of submitted policies issued on or after Jan. 1, 1990; and

- b) Certify that this requirement presents a hardship due to fields not readily available in their systems/databases or legacy computer systems that continue to be used for older issued policies and differ from computer systems for newer issued policies.

F. Experience Data Reports Required by This Statistical Plan

1. Using the data collected under this statistical plan, the Experience Reporting Agent will produce an experience data report that aggregates the experience data of all companies whose data have passed all of the validity and reasonableness checks outlined in Section 4 of VM-50 and has been determined by the Experience Reporting Agent to be acceptable to be used in the development of industry mortality experience.
2. The Experience Reporting Agent will provide to the SOA or other actuarial professional organizations an experience data report of aggregated experience that does not disclose a company's identity, which will be used to develop industry mortality experience and valuation mortality tables.
3. As long as a company is licensed in a state, that state insurance regulator will be given access to a company's experience data that is stored on a confidential database at the Experience Reporting Agent. Access by the state insurance regulator will be controlled by security credentials issued to the state insurance regulator by the Experience Reporting Agent.

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**Section 3: Statistical Plan for Group Annuity Mortality**

A. Type of Experience Collected Under This Statistical Plan

The type of experience to be collected under this statistical plan is mortality experience.

B. Scope of Business Collected Under This Statistical Plan

1. The data for this statistical plan includes direct written group annuity business issued by a company in the U.S. for lives in any country as well as reinsurance assumed written by a company in the U.S. for business outside the U.S. Product types include:
  - a. Group Pension Risk Transfer (PRT, as defined in VM-01) annuities originating from ongoing and terminated private and public defined benefit pension plans, including both participating and nonparticipating contracts where the insurance company bears mortality risk.
  - b. Purchased group annuities with mortality risk originating from defined contribution plans.
  - c. Immediate Participation Guarantee contracts for which the insurance company bears the mortality risk.
  - d. Longevity Reinsurance, as defined in VM-01.
  - e. Group Variable Payout Annuities, defined as group annuities that include a provision for benefit payments which vary in accordance with the rate of return of the underlying investment portfolio.
2. The intent is to align the scope of business collected under this statistical plan with the scope of VM-22. Therefore, the following types of business defined in VM-01 are excluded from data collection:
  - a. Guaranteed Investment Contracts
  - b. Synthetic Guaranteed Investment Contracts

- c. Funding Agreements
  - d. Stable Value contracts
  - e. Pre-Need Annuities
3. All values should be prior to any reinsurance ceded except for the situation defined in VM-51 Section 3.B.4. Assumption reinsurance of a line of business, where the assuming company is legally responsible for all benefits and claims paid, shall be included within the scope of this statistical plan.
4. In the event a reinsurer or TPA is responsible for administering a block of business, the reinsurer or TPA may submit that block of business on behalf of the direct writer. In this case, the reinsurer or TPA must be identified in Appendix 5 Item 1 - Submitting Company ID, and the direct writer must be identified in Appendix 5 Item 2 - NAIC Company Code of Direct Writer.
- a. As defined in VM-50 Section 4.B.3, the reconciliation to company statistical and financial data for both the direct writing company and all reinsurers and/or TPAs must include lines indicating the amount of business that is being reported by the reinsurers and/or TPAs. The Experience Reporting Agent will compare the reconciliations for all business submitted by the direct writer and any reinsurers and/or TPAs to ensure that all business is included and that there is no double counting of records.
  - b. If an insurance company is required to submit its direct written business and it also has reinsurance assumed business, it should only submit the assumed business if asked to do so by the ceding company since some ceding companies may not have been selected for data submission.
5. The direct writing company is ultimately responsible for all the data submitted for its company

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#### C. Criteria to Determine Companies That Are Required to Submit Experience Data

The Experience Reporting Agent, under the direction of the Life Actuarial (A) Task Force, will select companies that are required to submit experience data. The selection of companies will be based on achieving a minimum target level of approximately 90% of industry statutory reserves in scope. Companies selected to submit mortality experience data are expected to continue reporting their experience in future years, barring circumstances justifying an exemption. The list of companies selected is subject to change. Additional companies may be selected to maintain the target level of industry experience, or at the discretion of the Life Actuarial (A) Task Force. Any additional companies selected will be given sufficient notice to prepare for the data submission.

Exemptions may be granted by the Experience Reporting Agent where appropriate, following consultation with the domestic insurance regulator.

#### D. Process for Submitting Experience Data Under This Statistical Plan

Data for this statistical plan shall be submitted on an annual basis. Each company required to submit this data shall submit the data using the Regulatory Data Collection (RDC) online software submission application developed by the Experience Reporting Agent. For each data file submitted by a company, the Experience Reporting Agent will perform reasonability and completeness checks of the data, as defined in

Section 4 of VM-50. The Experience Reporting Agent will notify the company within 30 days following the data submission of any possible errors that need to be corrected. The Experience Reporting Agent will compile and send a report listing potential errors that need correction to the company.

Data for this statistical plan for mortality will be compiled using a calendar year method. The reporting calendar year is the calendar year that the company submits the experience data. The observation calendar year is the calendar year of the experience data that is reported. The observation calendar year will be one year prior to the reporting calendar year. For example, if the current calendar year is 2027 and that is the reporting calendar year, the company is to report the experience data that was in-force or issued in calendar year 2026, which is the observation calendar year.

Given an observation calendar year of 20XX, the calendar year method requires reporting of experience data as follows:

- i. Report records in force during or issued during calendar year 20XX.
- ii. Report terminations that were incurred in calendar year 20XX and reported before April 1, 20XX+1. Companies may report terminations reported after April 1, 20XX+1 if they choose to do so.

For any reporting calendar year, the data call will occur during the second quarter, and data is to be submitted according to the requirements of the *Valuation Manual* in effect during that calendar year. Data submissions must be made by Sept. 30 of the reporting calendar year. Corrections of data submissions must be completed by Feb. 28 of the year following the reporting calendar year. The NAIC may extend either of these deadlines if it is deemed necessary.

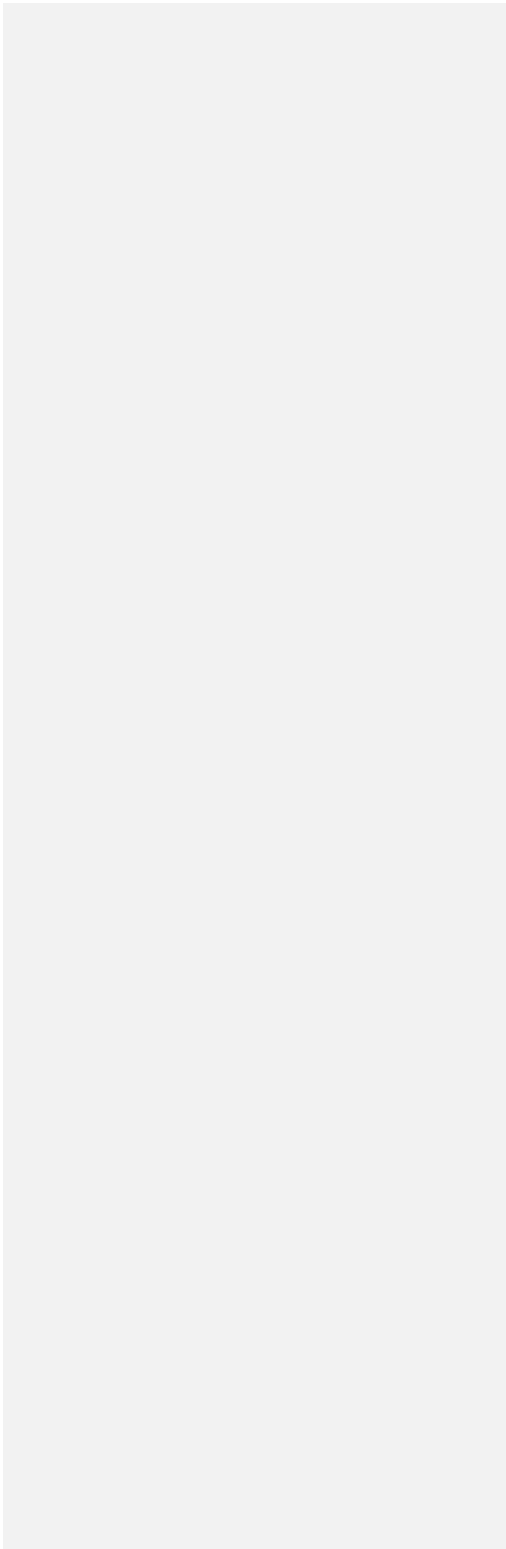
E. Experience Data Elements and Formats Required by This Statistical Plan

Companies subject to reporting pursuant to Section 3.C are required to complete the Experience Data Elements and Formats as defined in Appendix 5.

F. Experience Data Reports Required by This Statistical Plan

1. Using the data collected under this statistical plan, the Experience Reporting Agent will produce an experience data report that aggregates the experience data of all companies whose data have passed all the validity and reasonableness checks outlined in Section 4 of VM-50 and has been determined by the Experience Reporting Agent to be acceptable to be used in the development of industry mortality experience.
2. The Experience Reporting Agent will provide to the SOA or other actuarial professional organizations an experience data report of aggregated experience that does not disclose a company's identity, which will be used to develop industry mortality experience and valuation mortality tables.
3. As long as a company is licensed in a state, that state insurance regulator will be given access to a company's experience data that is stored on a confidential database at the Experience Reporting Agent. Access by the state insurance regulator will be controlled by security credentials issued to the state insurance regulator by the Experience Reporting Agent.

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**Appendix 1: Life Insurance Preferred Class Structure Questionnaire**

**Appendix 2: Life Insurance Mortality Claims Questionnaire**

**MORTALITY CLAIMS QUESTIONNAIRE**

*The purpose of this mortality claims questionnaire is for a company to respond to the questions whether or not it is submitting death claim data as specified. If the company is not submitting death claim data as specified, provide the additional detail requested.*

***Fill out this questionnaire for your individual life business and submit in addition to policy-level information.***

|         |                   |
|---------|-------------------|
| Company | NAIC Company Code |
|---------|-------------------|

|      |      |
|------|------|
| Name | Date |
|------|------|

**MORTALITY CLAIMS**

1. If the data is provided using a reporting run-out that is other than ~~six~~ **three** months, what run-out period was used? mm/dd/yyyy
2. The death claim amounts are to be for the total face amount and on a gross basis (before reinsurance). The data is based on:
  - a. Total face amount (for policies that include the cash value in addition to the face amount as a death benefit, use only the face amount) as specified OR  
Other (describe):  
If not as specified, indicate time period for which this occurred \_\_\_\_\_ - \_\_\_\_\_
  - b. Gross basis (before reinsurance) as specified OR Other  
(describe):  
If not as specified, indicate time period for which this occurred: \_\_\_\_\_ - \_\_\_\_\_  
Is this the same basis used for face amounts included in the study data? Yes No
3. The date that the termination is reported is to be used for the termination reported date. The date that the termination actually occurred is to be used for the actual termination date. What dates are used for death claims in the study data with respect to?
  - a) Termination reported date  
If not reported date, indicate basis for dates provided      Reported date      Other (describe):
  - b) Actual termination date for death claims:      Date of death      Other (describe):  
If not date of death, indicate basis for dates provided

4. Death claims pending at the end of the observation period but paid during the subsequent six months following the observation year are to be included in the data submission. Claims that are still pending at the end of the six-month run out are ~~to~~ to be included.

Are such pending claims included in the study data?      Yes      No

If no indicate time period for which this occurred: \_\_\_\_\_

5. The face amounts and death claim amounts are to be included without capping by amount. Are the face amounts and death claims/exposures included without capping by amount?

Yes      No

If No, describe how face amounts and death claims are capped and at what amount the capping is being done.

6. For death claims on policies issued before 1990:

Are death claims matched up to a corresponding in-force policy?      Yes      No

If no, indicate approach used:

7. Please briefly describe any other unique aspects of the death claims data that are not covered above.

**Appendix 3: Life Insurance Additional Plan Code Form**

**Appendix 4: Life Insurance Mortality Data Elements and Format**

The table below provides descriptions of the required data fields. Further details and coding examples are provided in a data dictionary located on the NAIC's website. The data dictionary is a living document and will be updated periodically as needed.

| ITEM | LENGTH | DATA ELEMENT | DESCRIPTION                                                                                                  |
|------|--------|--------------|--------------------------------------------------------------------------------------------------------------|
| 20   | 3      | Plan         | Coverage purchased under a Guaranteed Insurability Option:<br>110 = Exercised Guaranteed Insurability Option |

#### Appendix 5: Group Annuity Mortality Data Elements and Format

The table below provides descriptions of the required data fields. Further details and coding examples are provided in a data dictionary located on the NAIC's website. The data dictionary is a living document and will be updated periodically as needed.

| ITEM | MAXIMUM LENGTH | DATA ELEMENT                                       | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------|----------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | 9              | Submitting Company ID                              | ID number representing the company submitting this file.<br>If the company has an NAIC Company Code, then that code must be used.<br>If the company does not have an NAIC Company Code, the company's Federal Employer Identification Number (FEIN) must be used.<br>If the direct writer is the company submitting the data, Items 1 and 2 must contain the same value.                                                                                                                                        |
| 2    | 5              | NAIC Company Code of the Direct Writer of Business | The NAIC Company Code of the company that wrote the business being reported.<br>In the case of assumption reinsurance where the assuming company is legally responsible for all benefits and claims paid, the assuming company is considered to be the direct writer.<br>If the direct writer is the company submitting the data file, Items 1 and 2 must contain the same value.                                                                                                                               |
| 3    | 4              | Observation Year                                   | Enter Calendar Year of Observation                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 4    | 20             | Contract Number                                    | Enter the Group Annuity Contract number. This must be carried through consistently for all observation years.                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5    | 8              | Contract Issue Date                                | Enter the numeric Group Annuity Contract issue date in YYYYMMDD format.                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 6    | 1              | Plan Type                                          | 1 = PRT originating from Private Defined Benefit Plans<br>2 = PRT originating from Public Defined Benefit Plans<br>3 = Purchased Annuities with Mortality Risk Originating from Defined Contribution Plans<br>4 = Longevity Reinsurance<br>5 = Immediate Participation Guarantee contracts for which the insurance company bears the mortality risk<br>6 = Group Variable Payout Annuities<br>7 = Other Group Annuities with Mortality Risk<br><br>Note that COLAs do not qualify as variable payout annuities. |

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| ITEM | MAXIMUM LENGTH | DATA ELEMENT                                              | DESCRIPTION                                                                                                                                                                                                        |
|------|----------------|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7    | 1              | Country Code                                              | 1 = United States<br>2 = Canada<br>3 = United Kingdom<br>4 = Other                                                                                                                                                 |
| 8    | 20             | Certificate Number                                        | Enter a unique identifying number for the annuitant. This must be carried through consistently for all observation years.<br><br>Certificate numbers must be encrypted. Actual certificate numbers cannot be used. |
| 9    | 8              | Certificate Issue Date                                    | Enter the numeric Certificate issue date in YYYYMMDD format.                                                                                                                                                       |
| 10   | 2              | Issue Age                                                 | Enter the annuitant's issue age.                                                                                                                                                                                   |
| 11   | 1              | Beneficiary Indicator                                     | 1 = Primary<br>2 = Beneficiary<br>3 = Contingent (not yet in pay status)<br>4 = Unknown                                                                                                                            |
| 12   | 1              | Gender                                                    | 1 = Male<br>2 = Female<br>3 = Unisex – Unknown Gender<br>4 = Unisex – Male<br>5 = Unisex – Female<br>6 = Unknown                                                                                                   |
| 13   | 8              | Date of Birth                                             | Enter the numeric date of birth in YYYYMMDD format.                                                                                                                                                                |
| 14   | 8              | Date of Entry                                             | Enter the numeric date of entry in YYYYMMDD format.<br>See the data dictionary for details.                                                                                                                        |
| 15   | 1              | Status Code when the Group Annuity Contract Was Purchased | 1 = Retired (in payout status)<br>2 = Deferred (either terminated or active)                                                                                                                                       |
| 16   | 1              | Status Code as of the Observation Year                    | 1 = Retired (in payout status)<br>2 = Deferred (either terminated or active)                                                                                                                                       |
| 17   | 8              | Date of Termination                                       | Enter the numeric date of termination in YYYYMMDD format.<br><br>Leave this field blank if there was no termination.                                                                                               |
| 18   | 1              | Mode of Termination                                       | 1 = Death<br>2 = Retirement<br>3 = Other<br>4 = No Termination                                                                                                                                                     |
| 19   | 12             | Amount of Annual Income                                   | Provide the annual income amount to the nearest dollar as of the end of the observation year. Convert to US dollars if benefits are in any other currency.                                                         |
| 20   | 1              | Joint and Survivor                                        | 1 = 0% (Single Life)<br>2 = >0% - <=50%                                                                                                                                                                            |

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| ITEM | MAXIMUM LENGTH | DATA ELEMENT                     | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------|----------------|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |                |                                  | 3 = >50% - <=67%<br>4 = >67% - <=75%<br>5 = >75% - <=100%<br>6 = Joint percent unknown<br>7 = Joint indicator unknown                                                                                                                                                                                                                                                                                                                  |
| 21   | 1              | Benefit Class                    | 1 = Life only<br>2 = Life only, plus Temporary life annuity<br>3 = Life with period certain<br>4 = Life with period certain, plus Temporary life annuity<br>5 = Cash refund<br>6 = Cash refund, plus Temporary life annuity<br>7 = Unknown or Not Applicable                                                                                                                                                                           |
| 22   | 2              | Certain Period                   | Enter the Certain Period in years if Benefit Class = 3 or 4. For all other Benefit Classes, leave this field blank.                                                                                                                                                                                                                                                                                                                    |
| 23   | 1              | Job Classification               | 1 = Hourly<br>2 = Salaried<br>3 = Not Applicable<br>4 = Unknown                                                                                                                                                                                                                                                                                                                                                                        |
| 24   | 1              | Union Classification             | 1 = Union<br>2 = Nonunion<br>3 = Not Applicable<br>4 = Unknown                                                                                                                                                                                                                                                                                                                                                                         |
| 25   | 6              | NAICS Code                       | Enter the applicable North American Industry Classification System (NAICS) Code.<br><br>Leave blank if unknown or not applicable.                                                                                                                                                                                                                                                                                                      |
| 26   | 4              | SIC Code                         | Enter the applicable Standard Industrial Classification (SIC) Code.<br><br>Leave blank if unknown or not applicable.                                                                                                                                                                                                                                                                                                                   |
| 27   | 1              | Separate Account/General Account | 1=Separate Account, where assets are legally insulated from General Account claims<br>2=General Account                                                                                                                                                                                                                                                                                                                                |
| 28   | 2              | PRT Options                      | Was the participant exposed to any of the following immediately prior to, coincident with, or after the purchase of the annuity contract? Please consider offers that may have been made by either the insurer or by the pension plan that purchased the contract (to the extent such plan actions are known by the insurer and were considered when underwriting the contract).<br><br>11 = A one-time voluntary full lump sum window |

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| ITEM | MAXIMUM LENGTH | DATA ELEMENT                                                | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------|----------------|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |                |                                                             | <p>12 = A one-time voluntary partial lump sum window</p> <p>13 = A one-time involuntary full lump sum window</p> <p>14= A one-time benefit enhancement</p> <p>15 = A one-time option to convert the form of benefit to another form of benefit</p> <p>16 = A one-time option to add or remove spousal benefits</p> <p>17 = Any other one-time actions that the carrier considered potentially anti-selective to mortality when underwriting the contract</p> <p>18 = More than one of the above codes apply</p> <p>19 = Not applicable (use for non-PRT business)</p> <p>20 = Unknown</p> |
| 29   | 1              | Availability of Full and/or Partial Lump Sums at Retirement | <p>1=No lump sums are available</p> <p>2=Full and partial lump sums are available</p> <p>3=Only full lump sums are available</p> <p>4=Only partial lump sums are available</p> <p>5=Full lump sums are available; Unknown whether partial lump sums are available</p> <p>6=Unknown whether full lump sums are available; partial lump sums are available</p> <p>7=Unknown whether full or partial lump sums are available</p> <p>8 = Not applicable (use for non-PRT business)</p>                                                                                                        |
| 30   | 1              | Cost of Living Increases                                    | <p>Is there a cost of living or inflation increase feature?</p> <p>1 = Yes</p> <p>2 = No</p> <p>3 = Not Applicable (use for non-PRT business)</p> <p>4 = Unknown</p>                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 31   | 1              | Other Income Increases                                      | <p>Is there a feature (other than a cost-of-living increase) that causes the benefit not to be level (e.g. Social Security integration, or level benefit option that would cause the benefit amount to change)?</p> <p>1 = Yes</p> <p>2 = No</p> <p>3 = Not Applicable (use for non-PRT business)</p> <p>4 = Unknown</p>                                                                                                                                                                                                                                                                  |
| 32   | 1              | Collar Type                                                 | <p>1 = White Collar</p> <p>2 = Blue Collar</p> <p>3 = Unknown Collar Type</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| ITEM | MAXIMUM LENGTH | DATA ELEMENT       | DESCRIPTION                                                                                                                                             |
|------|----------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |                |                    | 4 = Not Applicable (use for non-PRT business)<br><br>Enter the collar type as determined by the company.<br>See the data dictionary for coding details. |
| 33   | 2              | State of Residence | Use standard, two-letter state abbreviation codes (e.g. FL for Florida) for the state of the annuitant's domicile.                                      |
| 34   | 5              | U.S. Zip Code      | For business issued in the U.S., provide the annuitant's 5-digit zip code.<br>For non-U.S. business, leave this blank.                                  |
| 35   | 2              | UK Postcode Area   | For business issued in the UK, enter the 2-digit postcode area.<br>For non-UK business, leave this blank.<br>If Unknown, leave this blank.              |

## Agenda Item 4

Discuss the Work of the Generator of Economic  
Scenarios (GOES) (E/A) Subgroup

# Generator of Economic Scenarios (GOES)

December 7, 2025



# Comments from American Academy of Actuaries

## Scenario Validation Process

The validation process should be done as part of each scenario release. Identifying the appropriate validation checks is difficult and should be reviewed regularly. The tools that the NAIC is proposing for this purpose are sound, but the Subcommittee would recommend frequent ongoing review to ensure that the tools are sufficient, particularly as market conditions fluctuate as that may bring the models under greater tension for a given parameterization. The Subcommittee also recommends that the “GOES Stats w Dashboard” tool also include a mean-variance plot of the major asset class returns. This is a good check on the relative performance across the investment opportunity set. Ideally, one would compute the steady state returns (e.g., last 20 years of simulation data) and plot the standard deviation of these returns on the x-axis and the average of these returns on the y-axis.

## Model Update and Review Considerations

Part of the LCMP should involve a regular estimation of the models incorporating more recent data. This allows for the determination of the stability of the model parameters and the identification of the effects that changes in market conditions may have on the model. The Subcommittee would recommend that the GOES models be estimated more frequently than the five years as currently proposed. We also recommend that other interested parties, including the Academy and the ACLI, be invited to actively participate in the formal annual model review and update process that the NAIC has proposed.

# Comments from American Council of Life Insurers

# Maintenance of the Governance Framework

All of the non-highlighted text was added to section VIII.H.

## *Maintenance of the Governance Framework*

The GOES Model Governance Framework will be exposed for routine comments and revisions at least annually. This will help the framework stay in sync with GOES implementation. Substantive revisions to the framework should be expected because GOES operates in a very dynamic environment, and operational issues are, by nature, often difficult to anticipate. Further, GOES represents a new level of coordination between regulators, vendors, and industry.

The requirement for routine annual exposures does not preclude the ability to hold off-cycle exposures and revisions.

Each new version of the GOES Model Governance Framework that is adopted will be labeled with a version number. Versions will be made available on the same website as scenarios.

# Incident Documentation and Remediation

All of the non-highlighted text was added to section VII.F.

After an incident of model error or operational error, the model owner will write a report documenting the incident, the resolution, the root causes, and follow-up actions taken to prevent it from happening again. Since many GOES users are public companies with audit requirements which include third-party risk assessments for inputs that affect financial reporting, postmortems should include specifics about the effectiveness of controls and any changes to controls. The report will be available to all interested parties. This is standard practice in the software industry, where it is frequently referred to as a postmortem.

The postmortem report has two primary goals:

1. Education, so that all stakeholders understand how the incident occurred and how to prevent the root causes in the future or mitigate their impact.
2. Supporting the maintenance of the framework.

Postmortem reports are blameless, objective, and constructive. They focus on causes and effects so that systemic problems can be addressed efficiently. Medicine and aviation are other fields that follow this practice; investigation reports from the National Transportation Safety Board are an example.

# Logistical Considerations

## Business Day t + 1 Considerations

The framework addresses timelines in business days, but many valuation teams work holidays and weekends to meet their deadlines. This will be particularly true for the 2026 year-end reporting cycle, the first where GOES is in effect. New Year's Day 2027 will be a Friday, so according to the draft timeline scenarios would be available by 4pm Central on Monday, January 4th. This means valuation teams will potentially have four less days to complete their projections than they did in 2025. Timelines could be even shorter if any errors need to be addressed. We recommend the NAIC establish contingency plans for filing extensions in case of significant delays, while noting that this would not address timing issues related to audits or the impact on public companies' GAAP reporting.

# Logistical Considerations

## **Time and Dollar Cost of Model Reruns Due to Incorrect Scenarios**

The framework should consider the time investment and dollar cost of rerunning models across the industry in the event of an error. Many companies rely on cloud providers to meet modeling capacity needs, which means that there is a hard cost for each run. This cost is often thousands, if not tens of thousands, of dollars. The total cost spread across the industry may be significant. As mentioned previously, the time investment for valuation teams is also significant. Scenario errors may have an impact on hedge programs and other risk management strategies. Companies using the scenarios for proactive risk management expect to face additional costs of rerunning sensitivities in addition to a potential loss of effectiveness in their risk management programs.

# Logistical Considerations

## Use of Prior-Month Scenarios in Event of Major Scenario Error

The plan to use prior-month scenarios in the event of a major scenario error may expose companies to asset/liability mismatches and to misstated financial statements. Would it be possible to reduce this risk by running the model more frequently, for example weekly? If the decision to use prior-period scenarios is made, how will scenario adjustments be handled? Will they be mandatory, and must there be a rationale provided for each adjustment?

# Logistical Considerations

## **Length of Time Scenario Data will be Publicly Available**

The length of time that data will be publicly available is not specified, and it is unclear if model inputs will be available in conjunction with the model output. Companies use historical scenario files for calibration and auditing. Being unable to confirm historical scenario files would make audit findings more likely and calibration of independent models more difficult, which makes proactive capital management more difficult.

# Logistical Considerations

## **Independent Auditor Review of Model Governance Framework**

Industry standard due diligence would include regular audits of both the model implementation and the performance of the governance framework. It would be natural to hold GOES to the same standard, especially given its industry-wide impact. The Model Audit Rule could be a template. For this reason, we recommend that the framework be reviewed by independent auditors.

## **Alternative Access to Scenarios in Event Website is Unavailable**

Not all companies have access to the NAIC SharePoint site. We recommend identifying another resource that could be used for posting scenario files if Conning's website is not available.

# Technical Considerations

## Process when Erroneous Scenarios are Replaced

When scenarios are updated, they should not be replaced in-place as this can be challenging for companies' own model governance and audit functions.

Currently scenarios are removed and replaced in-place which is not a best practice. Any scenario set posted should be retained, even if there is ultimately a correction. Scenario sets with errors could be moved to an archive folder if there are concerns that they will be used inadvertently.

# Technical Considerations

## Scenario Set Identification

- For audit purposes, posted scenarios should include a serial number, the date posted, the software version number used to produce the scenarios, the current version number for the model governance framework and the scenario version number (in the case of updates). Currently, only the valuation date is included.
- A hash value for each scenario file should be posted so that scenario files can be confirmed without a value-by-value comparison. SHA-256 would be an appropriate hash algorithm.

# Technical Considerations

## Scenario Set Identification

- For audit purposes, posted scenarios should include a serial number, the date posted, the software version number used to produce the scenarios, the current version number for the model governance framework and the scenario version number (in the case of updates). Currently, only the valuation date is included.
- A hash value for each scenario file should be posted so that scenario files can be confirmed without a value-by-value comparison. SHA-256 would be an appropriate hash algorithm.

# Technical Considerations

## Software Version Control

The governance process should follow standard practices for version control in software projects. Currently, it is unclear whether that is the case. For example, section VIII.D in the framework discusses copying models from a production environment to development and testing environments. Standard software development practices would refer to a code repository rather than a working copy in the production environment.

# Technical Considerations

## Model Change Regression Testing

Currently, companies are informed of model changes, but they don't necessarily have a good way to assess the impact of those changes for their situation. This could be addressed by performing regression testing when the GOES model changes. This would mean publishing scenario sets for the same date, with the same inputs, under both old and new models. Since not all companies perform monthly valuations, the date for the testing should be at the end of a quarter.

# Technical Considerations

## Disclosure of GOES Model Limitations

Actuarial Standard of Practice number 56 requires disclosure of model limitations. Actuaries expect all models to have limitations; understanding them informs the actuary's decisions about fallback plans, recalibration of other models, adjustments to results, etc. Better understanding enables more decisiveness, which helps address the workload concerns mentioned above. Will limitations of the GOES model be disclosed?



November 24, 2025

Mr. Mike Yanachek, Chair  
Generator of Economic Scenarios (GOES) (E/A) Subgroup  
National Association of Insurance Commissioners (NAIC)

Re: GOES Exposures

Dear Chair Yanachek:

On behalf of the Economic Scenario Generator Subcommittee (Subcommittee) of the American Academy of Actuaries,<sup>1</sup> we appreciate the opportunity to comment on the Generator of Economic Scenarios (GOES) Subgroup's recent GOES exposures.

The Subcommittee appreciates the challenge that comes with developing a comprehensive governance framework, which is likely to evolve over time as experience is gained. It is important to keep in mind how an economic scenario generator (ESG) is designed and managed when defining the governance process.

The development or selection of an ESG includes many considerations. In our experience, some of the more important considerations include:

- Identifying the key financial variables to be modeled, e.g., interest rates, asset classes, returns.
- Identify data sources for the key financial variables. Insofar as possible, the data sources should be available for all users to obtain.
- Establishing stylized facts across the key financial variables.
- Identifying the most important stylized facts for the given use case. General requirements, such as generating scenarios for which the financial variables reside in a target range and meet statistical criteria, are typical. More specific dynamic attributes, such as low for long and volatility clustering, are other examples.
- Establishing calibration targets and criteria.
- Selecting model components that are capable of producing the most important stylized facts.
- Establishing an estimation process for the selected model components.
- Documenting the models and their associated estimation routines.
- Developing a validation process and overall validation report, including failure metrics. Identifying sound failure metrics is hard to do and usually involves expert judgment. If a calibration fails the validation, then a recalibration is needed.
- Establishing a process under which repeated validation failures result in the initiation of model change.

We believe a best practice for an ESG governance framework would be to start by recognizing the three

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<sup>1</sup> The American Academy of Actuaries is a 20,000-member professional association whose mission is to serve the public and the U.S. actuarial profession. For 60 years, the Academy has assisted public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

pillars of the ESG life cycle management process (LCMP), models, calibration, and validation.

Within the LCMP framework, not only do these three pillars interact with each other on an ongoing basis, but the way in which they interact is an integral part of the model governance process. The ESG models sit above the entire LCMP, because the choice of models is the limiting factor in what the ESG can do. The most routine interaction between calibration and validation involves setting the model to current market conditions and retaining the existing parameterization. If that passes validation, the model calibration is considered viable under current market conditions. If not, a recalibration will be considered. At some point, it may be found that no recalibration passes the validation process and a model change is needed. The need to introduce a model change usually becomes apparent as the validation process indicates increased failure against criteria. When sudden market changes occur, such as a move to ultra-low rates resulting from a zero-interest rate policy (ZIRP) and quantitative easing (QE), knowing if the changes are temporary or long-term may not be obvious and it is typical to gradually conclude that a model change is needed.

The validation process should be done as part of each scenario release. Identifying the appropriate validation checks is difficult and should be reviewed regularly. The tools that the NAIC is proposing for this purpose are sound, but the Subcommittee would recommend frequent ongoing review to ensure that the tools are sufficient, particularly as market conditions fluctuate as that may bring the models under greater tension for a given parameterization. The Subcommittee also recommends that the “GOES Stats w Dashboard” tool also include a mean-variance plot of the major asset class returns. This is a good check on the relative performance across the investment opportunity set. Ideally, one would compute the steady state returns (e.g., last 20 years of simulation data) and plot the standard deviation of these returns on the x-axis and the average of these returns on the y-axis.

One of the most important stylized facts of the GOES project is the requirement that the treasury rates exhibit low for long behavior. The multi-factor CIR model is not among the class of models that can produce low for long scenarios that are consistent with low for long behavior actually observed in history. In the multi-factor CIR model, short-term interest rates always move more than long-term rates. This is a mathematical feature of the model. A consequence of this has been that a range of flooring mechanisms needed to be developed in order for the model to produce reasonable outputs. This added another layer of complexity to the GOES models, which consequently makes governance a greater challenge due to these extra steps involved in the flooring process.

Expert judgment plays an important role in the LCMP and is a necessary consideration when developing the governance framework. One of the best ways to understand the role of expert judgment is to have careful validation reports, full model documentation, and a broad and diverse review process. Careful documentation ensures that all participants know what to expect, which allows for the appropriate assessment of the model features and limitations. It is then much easier to determine where expert judgment is appropriate and playing a role.

Part of the LCMP should involve a regular estimation of the models incorporating more recent data. This allows for the determination of the stability of the model parameters and the identification of the effects that changes in market conditions may have on the model. The Subcommittee would recommend that the GOES models be estimated more frequently than the five years as currently proposed. We also recommend that other interested parties, including the Academy and the ACLI, be invited to actively participate in the formal annual model review and update process that the NAIC has proposed.

There are many aspects of the GOES model that have incomplete or no substantial documentation:

- Aspects of the treasury bond initialization process, including offering details of the low yield adjustment, the procedure for handling of the negative state variable case, and the algebraic form of the decay factor/parameter for which a value of 3 has been stated.
- The link between various equity indices when a jump occurs for one of the indices. For example, we would not expect a large jump in one index to not affect the others. How are large jumps transmitted across the equity indices?
- The corporate credit model for which no substantial details appear to be publicly available.
- The SERT scenario process, specifically explicit documentation on how to create the scenarios. While the Academy's specification was used, there appears to be some other adjustments made in the treasury case which could be helpful to share publicly.
- The credit scenarios for SERT.
- The process by which the credit scenarios are being adjusted to align with NAIC excess return targets. The why and the how of this adjustment process is vital for users to understand. Providing a clear and complete description of the rationale and the procedure would be helpful in getting users comfortable with the credit scenarios and would be even more valuable in light of the recent corrections that have been made to the adjustment process for these scenarios.

The Subcommittee remains concerned that without full documentation on the corporate credit model, implementation of GOES could be challenged. Of particular concern is the uneven availability of the documentation to all users without employing a non-disclosure agreement (NDA). For models such as GOES, having open discussions about the model and its performance is beneficial to the actuary, the regulator, and to industry. One concern with requiring an NDA relates to the ability of the free and open discussion by actuaries about the corporate credit model's performance at meetings, including with the NAIC's GOES Subgroup. Another concern with the need for an NDA relates to the corporate model documentation. Should access to the documentation be restricted by an NDA, it introduces a need for an independent expert analysis to assess the level of detail included in the corporate model documentation to help a user understand several key details, including the model dynamics, how credit is linked to the treasury interest rate model, the role of floored treasury yields, and how the model is estimated.

The Subcommittee would ask for some additional clarification related to the calibration adjustments (i.e., rescaling of scenarios) in the corporate credit model that have been identified. It is expected that the corporate credit model would calibrate to NAIC targets and that the native model output would then be provided for the bond return series. It has been shared that significant adjustments have been made to the native model output on a post-processing basis, in order to align the returns with the NAIC targets. Clarification on why an indirect route to obtain the bond return series would be helpful, particularly given that the current corporate credit model is a powerful, state-of-the-art model and it should be able to directly produce the required bond return series as native output.

It is important to remember that the NAIC calibration targets (i.e., targeting criteria) for the corporate credit model are excess returns. Spreads are not part of the targets, although they were used to inform the excess return targets. It has been explained that the adjustment process begins by making an upward adjustment to align spreads, which then resulted in scenarios for which the excess returns are too high. The returns of the various credit classes are then adjusted downward, in order to once again align them with the NAIC targets. The downward adjustment is made by subtracting a constant from the respective price returns of the corporate credit classes. In contrast to this adjustment process, our experience with many classes of corporate credit models would lead the Subcommittee to expect that the corporate credit model would produce spreads and returns that depend on its calibration parameters and that these spreads and returns are produced as simultaneous native outputs of the model. Adjusting spreads should not affect returns, since the returns are not being fed the spreads for the purpose of their computation. Rather, the returns and spreads are intrinsic model outputs that depend on the default, migration, credit cost, and

stochastic factor assumptions of the model. The Subcommittee believes that being able to reconcile the adjustment process with the view of credit modeling as outlined would be very helpful.

The Subcommittee did have some questions about the credit model adjustments. As the credit model is undocumented, the combined effect creates a material challenge to model governance. The use of ad hoc adjustments to scenario output overrides model dynamics, which can lead to unintended consequences across other financial variables. For example, a sophisticated and intricate corporate credit model may embed appropriate tail behavior across various asset classes. Ad hoc rescaling of simulated output may disturb these relationships. In the September 2025 scenarios release, the following ratio of high-yield (HY) to S&P 500 gross wealth factors was observed.

**Gross Wealth Factors 30Sep2025**

| Ratio HY/SP500 | 1 Yr | 5 Yr | 10 Yr | 20 Yr | 30 Yr |
|----------------|------|------|-------|-------|-------|
| Min            | 1.49 | 2.42 | 18.27 | 13.44 | 18.71 |
| 1.0%           | 1.13 | 1.73 | 2.45  | 3.04  | 3.79  |
| 2.5%           | 1.09 | 1.49 | 1.98  | 2.48  | 2.85  |
| 5.0%           | 1.06 | 1.34 | 1.68  | 2.10  | 2.38  |
| 10.0%          | 1.02 | 1.20 | 1.42  | 1.72  | 1.86  |
| 25.0%          | 0.96 | 1.00 | 1.11  | 1.29  | 1.41  |
| 50.0%          | 0.91 | 0.86 | 0.89  | 0.98  | 1.10  |
| 75.0%          | 0.87 | 0.76 | 0.74  | 0.82  | 0.94  |
| 90.0%          | 0.84 | 0.69 | 0.66  | 0.72  | 0.82  |
| 95.0%          | 0.83 | 0.65 | 0.62  | 0.67  | 0.80  |
| 97.5%          | 0.81 | 0.61 | 0.61  | 0.65  | 0.77  |
| 99.0%          | 0.79 | 0.59 | 0.58  | 0.61  | 0.79  |
| Max            | 0.67 | 0.54 | 0.53  | 0.76  | 0.98  |

In the October 2025 scenarios, based on the modified rescaling parameters, the corresponding chart is:

**Gross Wealth Factors 31Oct2025**

| Ratio HY/SP500 | 1 Yr | 5 Yr | 10 Yr | 20 Yr | 30 Yr |
|----------------|------|------|-------|-------|-------|
| Min            | 1.51 | 2.49 | 17.89 | 11.73 | 15.31 |
| 1.0%           | 1.14 | 1.75 | 2.39  | 2.63  | 2.89  |
| 2.5%           | 1.10 | 1.51 | 1.94  | 2.15  | 2.16  |
| 5.0%           | 1.07 | 1.36 | 1.64  | 1.81  | 1.76  |
| 10.0%          | 1.03 | 1.22 | 1.39  | 1.47  | 1.38  |
| 25.0%          | 0.97 | 1.02 | 1.09  | 1.10  | 1.03  |
| 50.0%          | 0.92 | 0.88 | 0.87  | 0.83  | 0.80  |
| 75.0%          | 0.88 | 0.77 | 0.72  | 0.68  | 0.67  |
| 90.0%          | 0.85 | 0.70 | 0.63  | 0.60  | 0.59  |
| 95.0%          | 0.83 | 0.65 | 0.60  | 0.55  | 0.56  |
| 97.5%          | 0.82 | 0.62 | 0.58  | 0.53  | 0.53  |
| 99.0%          | 0.80 | 0.60 | 0.55  | 0.49  | 0.56  |
| Max            | 0.68 | 0.53 | 0.48  | 0.67  | 0.76  |

This is an improvement to what one might expect in downside tail risk, but it remains that HY has a very favorable downside risk profile relative to large cap equity.

Further clarification on how the relatively small changes to the corporate credit adjustments (i.e. rescaling parameters) are able to bring HY bond returns down by over 100 basis points would be helpful. Is it possible that some other changes were made, particularly in the case of the September 2025 scenarios, resulting in such large changes in returns? The model process would be greatly enhanced by providing improved transparency by sharing details around the need for and rational behind the generation of the corporate credit scenarios.

Finally, the Subcommittee would recommend that the scenario sets be kept once they are posted. Released scenarios are part of the LCMP and given the amount of effort that they require, along with the

ability to share mutual understanding and awareness of the process in developing such scenarios would benefit everyone. If there is an error and a scenario set is revised, it might be best to move the original to an archive and document why it is obsolete.

We appreciate the GOES Subgroup's efforts to establish a model governance framework. The Subcommittee remains available to answer any questions or provide additional support as you continue to work through this process. Please contact Amanda Barry-Moilanen ([barrymoilanen@actuary.org](mailto:barrymoilanen@actuary.org)), the Academy's policy project manager, life, with any questions on this comment letter.

Sincerely,

Hal Pedersen, MAAA, ASA  
Chairperson, Economic Scenario Generator Subcommittee  
American Academy of Actuaries



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November 21, 2025

Mike Yanacheak  
Chair, NAIC Generator of Economic Scenarios (GOES)(E/A) Subgroup

Re: Draft GOES Model Governance Framework

Dear Chair Yanacheak,

The American Council of Life Insurers (ACLI) appreciates the opportunity to provide feedback on the exposed draft of the GOES Model Governance Framework. Industry believes it is important to adopt a governance framework for GOES before the requirement to use GOES becomes effective.

## Executive Summary

We have two key recommendations we would like to see as part of the initial adoption of the governance framework. If adopted, these actions would increase transparency and provide opportunities for GOES to demonstrate effective operational controls. ACLI recommends the following additions to the framework:

- A "Maintenance of the Governance Framework" section
- A section on "Incident Documentation and Remediation (Postmortem Reports)"

In addition, we offer other ideas for future integration in the framework.

## Maintenance of Governance Framework

First, ACLI recommends adding a "Maintenance of the Governance Framework" section before the framework is adopted. The attachment to this letter has proposed language which is focused on exposing the framework annually so that it remains up to date with best practices, is responsive to current issues, and is well-aligned with the GOES implementation. This section would help industry engage with the framework without slowing down its adoption. Regardless of whether the GOES subgroup adopts the specific method we have proposed, there should be a plan for keeping the framework up to date.

American Council of Life Insurers | 300 New Jersey Avenue, NW, 10th Floor | Washington, DC 20001

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The American Council of Life Insurers is the leading trade association driving public policy and advocacy on behalf of the life insurance industry. 90 million American families rely on the life insurance industry for financial protection and retirement security. ACLI's member companies are dedicated to protecting consumers' financial wellbeing through life insurance, annuities, retirement plans, long-term care insurance, disability income insurance, reinsurance, and dental, vision and other supplemental benefits. ACLI's 275 member companies represent 93 percent of industry assets in the United States.

## Incident Documentation and Remediation

Second, ACLI recommends adding a section on “Incident Documentation and Remediation (Postmortem Reports)” to the framework. Proposed language for this new section is included in the attachment. Post-incident analysis would improve collaboration by aligning expectations and focusing maintenance of the framework on addressing material issues at their root cause. Whether the response is to improve the control environment, operating practices, process design, or other improvements, effective and efficient solutions benefit all GOES stakeholders.

Past incidents demonstrate the need for better processes around problems with the scenario files:

- The July 22<sup>nd</sup> announcement for 3/31/25 scenarios also shared news of equity model updates with a potentially material impact on the tails of the distribution ( $-4\%/-2\%/+3\%/+8\%$  at the 1<sup>st</sup>/5<sup>th</sup>/95<sup>th</sup>/99<sup>th</sup> percentiles) and introduced some variability in the total return due to interest rate movements. Based on the information that has been provided, ACLI sees this as a potentially material change, which would require a public exposure according to the current draft of the framework.
- The August 17<sup>th</sup> announcement for 6/30/25 scenarios included a note that the statistics files accompanying 12/31/24 and 3/31/25 scenarios were incorrect because price and total return data were swapped for some indices. While the scenarios were not impacted, this should have been noted as an incident.
- The October 1<sup>st</sup> announcement for 9/30/25 scenarios disclosed errors in the 12/31/24, 3/31/25, and 6/30/25 bond fund scenarios.
- At the time of this letter, the 12/31/24, 3/31/25, and 6/30/25 scenarios are no longer available online. Based on conversation with a member, ACLI understands that these have been removed due to another issue with the bond fund scenarios. We have not seen any announcements related to the missing scenarios from Conning or the NAIC.

Providing post-incident analysis for these issues now, and any other issues of which Conning or NAIC is aware, is a first step to alleviating concerns. In addition, it would give the GOES team an opportunity to develop these processes and implement any new controls prior to producing the 12/31/25 scenarios without the pressure of a year-end or quarter-end close. Another way to confirm that the process is running smoothly before the model goes live at the end of the year would be by producing additional scenario sets under this governance framework. In particular, companies would appreciate outlier scenarios, batches created under the latest version of GOES with shocks applied to the input parameters, to help with sensitivity testing. We can provide more detailed suggestions regarding shocks if the NAIC pursues this course of action.

It is difficult for industry to analyze proposed capital framework changes while its understanding of the scenario generator is still evolving. We would suggest limiting changes to the capital framework until the GOES scenario generation process has had further testing, and we will elaborate on this point in our letter on the C-3 exposures. We suggest this path as an interim solution pending further analysis of alternative options.

These recommendations are designed to help the Subgroup ensure the reliability of the GOES Model Governance Framework. We see this as a key goal because, unlike many other NAIC publications, the framework has operational impacts that can affect the workload of valuation and modeling actuaries in addition to financial outcomes for their companies. ACLI members have raised concerns regarding delays, deadlines, overtime, reputational risk, audit findings, and appointed actuary considerations. Taken together, they suggest that scenario errors will likely have a cost for actuaries who are required to use GOES. Although some of the errors found so far may not have been particularly impactful, the quantity of errors is concerning. In addition to the practical cost in terms of shortened timelines, additional model runs, and reanalyzing results, errors introduce uncertainty in reserves and capital.

## Other Considerations for Future Integration into the Framework

While the priority is ensuring the reliability of the framework, ACLI and its members have also identified other items to address which we would be happy to discuss with you now or in the future:

### Strategic considerations

- The framework doesn't specify objectives or key risks. Adding these would help clarify what types of scenario errors are material (such as, would an error be considered material if one company is materially affected) and how to handle situations that are not covered in the fallback plan. The plan contemplates operational issues at Conning, but should consider this for all named stakeholders, including the NAIC. This is important because listing every possible materiality threshold and operational issue seems impractical, if not impossible.
- The framework should include metrics for success or triggers for more immediate reevaluation. For example, if a validation error that delays scenarios by two days results in a framework update, then would two consecutive months with one-day delays also result in an update? If not, would there be a limit of the number of months to trigger an update? Would it make a difference if the delays were all for the same reason? The responses to these questions should be considered by the framework.
- The framework would be easier to read and understand if it introduced concrete processes, targeted outcomes, and controls before discussing abstract roles and responsibilities. Understanding the processes that the framework governs would make it easier to discuss how stakeholders coordinate.

### Logistical considerations

- The framework addresses timelines in business days, but many valuation teams work holidays and weekends to meet their deadlines. This will be particularly true for the 2026 year-end reporting cycle, the first where GOES is in effect. New Year's Day 2027 will be a Friday, so according to the draft timeline scenarios would be available by 4pm Central on Monday, January 4<sup>th</sup>. This means valuation teams will potentially have four less days to complete their projections than they did in 2025. Timelines could be even shorter if any errors need to be addressed. We recommend the NAIC establish contingency plans for filing extensions in case of significant delays, while noting that this would not address timing issues related to audits or the impact on public companies' GAAP reporting.

- The framework should consider the time investment and dollar cost of rerunning models across the industry in the event of an error. Many companies rely on cloud providers to meet modeling capacity needs, which means that there is a hard cost for each run. This cost is often thousands, if not tens of thousands, of dollars. The total cost spread across the industry may be significant. As mentioned previously, the time investment for valuation teams is also significant. Scenario errors may have an impact on hedge programs and other risk management strategies. Companies using the scenarios for proactive risk management expect to face additional costs of rerunning sensitivities in addition to a potential loss of effectiveness in their risk management programs.
- The plan to use prior-month scenarios in the event of a major scenario error may expose companies to asset/liability mismatches and to misstated financial statements. Would it be possible to reduce this risk by running the model more frequently, for example weekly? If the decision to use prior-period scenarios is made, how will scenario adjustments be handled? Will they be mandatory, and must there be a rationale provided for each adjustment?
- The length of time that data will be publicly available is not specified, and it is unclear if model inputs will be available in conjunction with the model output. Companies use historical scenario files for calibration and auditing. Being unable to confirm historical scenario files would make audit findings more likely and calibration of independent models more difficult, which makes proactive capital management more difficult.
- Industry standard due diligence would include regular audits of both the model implementation and the performance of the governance framework. It would be natural to hold GOES to the same standard, especially given its industry-wide impact. The Model Audit Rule could be a template. For this reason, we recommend that the framework be reviewed by independent auditors.
- Not all companies have access to the NAIC SharePoint site. We recommend identifying another resource that could be used for posting scenario files if Conning's website is not available.

#### Technical considerations

- When scenarios are updated, they should not be replaced in-place as this can be challenging for companies' own model governance and audit functions. Currently scenarios are removed and replaced in-place which is not a best practice. Any scenario set posted should be retained, even if there is ultimately a correction. Scenario sets with errors could be moved to an archive folder if there are concerns that they will be used inadvertently.
- For audit purposes, posted scenarios should include a serial number, the date posted, the software version number used to produce the scenarios, the current version number for the model governance framework and the scenario version number (in the case of updates). Currently, only the valuation date is included.
- A hash value for each scenario file should be posted so that scenario files can be confirmed without a value-by-value comparison. SHA-256 would be an appropriate hash algorithm.
- The governance process should follow standard practices for version control in software projects. Currently, it is unclear whether that is the case. For example, section VIII.D in the framework discusses copying models from a production environment to development and testing

environments. Standard software development practices would refer to a code repository rather than a working copy in the production environment.

- Currently, companies are informed of model changes, but they don't necessarily have a good way to assess the impact of those changes for their situation. This could be addressed by performing regression testing when the GOES model changes. This would mean publishing scenario sets for the same date, with the same inputs, under both old and new models. Since not all companies perform monthly valuations, the date for the testing should be at the end of a quarter.
- Actuarial Standard of Practice number 56 requires disclosure of model limitations. Actuaries expect all models to have limitations; understanding them informs the actuary's decisions about fallback plans, recalibration of other models, adjustments to results, etc. Better understanding enables more decisiveness, which helps address the workload concerns mentioned above. Will limitations of the GOES model be disclosed?

Thank you for your attention to the governance process. As the volume of questions above indicates, this is an important issue for life insurance companies.

Sincerely,

cc: Scott O'Neal, NAIC

## Appendix – Proposed Additions to the Framework:

### *Maintenance of the Governance Framework*

The GOES Model Governance Framework will be exposed for routine comments and revisions at least annually. This will help the framework stay in sync with GOES implementation. Substantive revisions to the framework should be expected because GOES operates in a very dynamic environment, and operational issues are, by nature, often difficult to anticipate. Further, GOES represents a new level of coordination between regulators, vendors, and industry.

The requirement for routine annual exposures does not preclude the ability to hold off-cycle exposures and revisions.

Each new version of the GOES Model Governance Framework that is adopted will be labeled with a version number. Versions will be made available on the same website as scenarios.

### *Incident Documentation and Remediation (Postmortem Reports)*

After an incident of model error or operational error, the model owner will write a report documenting the incident, the resolution, the root causes, and follow-up actions taken to prevent it from happening again. Since many GOES users are public companies with audit requirements which include third-party risk assessments for inputs that affect financial reporting, postmortems should include specifics about the effectiveness of controls and any changes to controls. The report will be available to all interested parties. This is standard practice in the software industry, where it is frequently referred to as a postmortem.

The postmortem report has two primary goals:

1. Education, so that all stakeholders understand how the incident occurred and how to prevent the root causes in the future or mitigate their impact.
2. Supporting the maintenance of the framework.

Postmortem reports are blameless, objective, and constructive. They focus on causes and effects so that systemic problems can be addressed efficiently. Medicine and aviation are other fields that follow this practice; investigation reports from the National Transportation Safety Board are an example.



## Generator of Economic Scenarios (GOES) Model Governance Framework

Deleted: Exposure Draft¶

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## I. Background

### A. Purpose of the GOES Model Governance Framework

The Generator of Economic Scenarios (GOES) Model Governance Framework is designed to mitigate risk by providing governance and controls for models producing scenarios used in calculations of life and annuity Statutory reserves according to the *Valuation Manual* (VM-20, VM-21, and VM-22) and capital under the NAIC RBC requirements (C3 Phase 1, C3 Phase 2). The requirements of the Model Governance Framework also apply to ancillary tools (e.g. scenario selection tool) and models that produce scenario statistics.

Actuarial Standard of Practice No. 56, *Modeling* (ASOP No. 56) defines **Model Risk** as “The risk of adverse consequences resulting from reliance on a model that does not adequately represent that which is being modeled, or the risk of misuse or misinterpretation.”

The ASOP No. 56 defines **Governance and Controls** as “The application of a set of procedures and an organizational structure designed to reduce the risk that the model output is not reliably calculated or not utilized as intended,” and states that the actuary should use, or, if appropriate, may rely on others to use, reasonable governance and controls to mitigate model risk.

This document is intended to provide a comprehensive governance framework including appropriate controls, monitoring, and oversight to ensure the quality of the GOES models so they can be trusted and relied upon for their intended use.

### B. Importance of a Model Governance Framework

A model governance framework is critically important for the GOES and ancillary tools for several reasons:

1. Many companies will be using the GOES scenarios, and they may have a material financial impact.
2. The framework will implement and provide documentation of controls designed to prevent or mitigate human error.
3. The transparency of the framework should aid in understanding any model limitations, so that conclusions drawn from model results are properly informed.
4. The framework should ensure that models meet their intended purpose. ASOP No. 56 defines **Intended Purpose** as “The goal or question, whether generalized or specific, addressed by the model within the context of the

assignment.” Section 3.1.2 of the ASOP states that “When selecting, reviewing, or evaluating the model, the actuary should confirm that, in the actuary’s professional judgment, the model reasonably meets the intended purpose.”

The framework includes a process for model selection and scheduled reviews. There are also off-cycle reviews (where necessary) intended to ensure that models continue to meet their intended purpose throughout their life cycles.

5. The framework should improve efficiency, avoiding re-work and confusion regarding expectations. Documented processes and procedures will enable model developers and reviewers to implement changes more quickly.
6. There is a possibility that unexpected issues will occur, despite best efforts. The framework provides a process for identification, escalation, and resolution of issues if they arise.

#### C. Components of the GOES Model Governance Framework

Components of the Model Governance Framework include:

1. Roles and Responsibilities  
The roles and responsibilities of all stakeholders involved in the implementation and maintenance of the model are documented (see Sections II and III). Parties are designated to act as Model User, model developer, model owner, and model steward. In addition, there is a model governance oversight function. The roles and responsibilities include separation of duties where appropriate. One of the key aspects of a successful governance function is that it is independent.
2. Signoff Protocols  
Model controls and other items requiring signoffs are identified (see Section II.B), along with the parties responsible.
3. Risk-Ranked Model Inventory  
All models are catalogued and ranked according to their risk (see Section IV). This is intended to ensure the time and effort required for compliance with governance standards is consistent with each model’s risk level. Generally, the most robust validation procedures will apply to the riskiest models, while less rigorous methods (e.g. peer review) may apply to those that have less risk.
4. Model Selection and Validation Processes  
Section V includes criteria for model selection along with details on the model validation process and independent review.

5. **Scheduled and Off-Cycle Model Updates**  
Section VI provides details on routine, scheduled monthly and annual updates, as well as off-cycle model updates.
6. **Process for Handling Model Findings**  
Section VII provides a process for identification, escalation, and resolution of issues if they arise.
7. **Change Management Process**  
The change management process includes procedures to ensure that model change requests are documented, communicated, prioritized, formally approved, and implemented in a controlled manner (see Section VIII).
8. **Documentation**  
Various forms of documentation are required throughout the governance process (see Section IX).
9. **Access Controls**  
To avoid the possibility of unauthorized changes, write access to models and model governance spreadsheets (e.g. model inventory file) is granted only to individuals requiring access. Section X provides details on the level of access granted to stakeholders (i.e. Read, Write, or No Access).

## II. Governance Roles and Sign-off Protocols

### A. Governance Roles

For the GOES Model Governance Framework, parties are designated to serve the roles of model developer, model owner, and model steward. There is also a model governance oversight function. High-level descriptions of the responsibilities of each party are shown in the table below.

There are additional stakeholders involved in the implementation and maintenance of the models (e.g. Model Users). See Section III for details on all stakeholder responsibilities, including key deliverables.

| Role                                                                | High-Level Responsibilities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Model Developer:<br>Conning's GEMS®<br>Software Development<br>Team | The GEMS® software development team will incorporate change requests from the Model Steward into the GEMS® software and will be responsible for all ongoing GEMS® maintenance. Conning is also responsible for developing and maintaining ancillary tools, including the scenario selection tool and utility to produce statistics. The model developer role will also be responsible for performing model validation, managing modeling environments, conducting testing of model changes, and completing change request documentation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Model Owner:<br>Conning's Professional<br>Services Team             | <p>Conning's Professional Services team will own the model and the production environment, ensuring that monthly models are properly parameterized and calibrated, and that results and associated analyses are available on a timely basis. This team will utilize GEMS® automation features and commonly available tools to develop and maintain the automated monthly workflow.</p> <p>The Professional Services team will communicate requirements to the Model Developer, perform user-acceptance testing of any new code required for software to meet NAIC model specifications, and design and oversee the monthly production process.</p> <p>Conning's scenario file production processes are organized such that: 1) each process has a primary owner and a designated reviewer; 2) model updates and processes are automated where practical to do so; 3) reviewers use GEMS® native change management and audit tools to independently verify model updates and processes; and 4) scenario summaries and reports illustrate the reasonableness of results.</p> |
| Model Steward:<br>GOES (E/A) Subgroup,<br>with NAIC Staff Support   | The GOES (E/A) Subgroup manages the development of the GOES model, ensures that the model governance framework is followed and that models meet standards set by the NAIC and is fit for use. The GOES (E/A) Subgroup requests any changes to the GOES to meet regulatory objectives, with input from interested parties. Meetings of the GOES (E/A) Subgroup are attended by member regulators, NAIC staff, interested parties, and representatives from the ACLI and American Academy of Actuaries, which include subject matter experts.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

|                                                                         |                                                                                                                                                                                                                                                           |
|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                         | NAIC staff supports the GOES (E/A) Subgroup as noted throughout this document (e.g. reviewing controls, independently producing and reviewing monthly scenario statistics, maintaining the model inventory and other spreadsheet governance tools, etc.). |
| Model Oversight Group: GOES (E/A) Subgroup and NAIC Committee Structure | The GOES (E/A) Subgroup has oversight responsibilities and reports to other groups in the NAIC Committee Structure that provide further oversight as described in Section III.A.                                                                          |
| Model User: US Insurance Organizations, State Insurance Regulators      | Model Users report issues to GOES (E/A) Subgroup and request enhancements. When changes are made to the GOES (e.g. 5-year review and recalibration), Model Users volunteer for field testing/User Acceptance Testing.                                     |

#### B. Sign-Off Protocols

For routine model updates necessary for monthly scenario production, as well as routine annual changes (if any), Conning and NAIC staff have signoff responsibilities as described in the table below. All other model updates require additional signoff from the GOES (E/A) Subgroup.

| Party      | Sign-Off Responsibilities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Conning    | Reviews and signs off on: <ol style="list-style-type: none"> <li>1. Model access controls, ensuring that only individuals authorized to work on the models have access.</li> <li>2. Inclusion controls, ensuring that data inputs to the model are complete and have been updated as required.</li> <li>3. Change management controls for all model updates, with appropriate separation of duties (i.e. signoff from development team to advance the model from the development environment to the testing environment; signoff from the testing team that testing was completed and reviewed; and signoff that the tested model was moved successfully to the production environment).</li> <li>4. Model validations.</li> <li>5. Attestation document will be provided to NAIC staff that the above controls were performed, along with any findings. The attestation document will include initials beside each control to indicate signoff. See Section VII for details on how findings will be handled.</li> </ol> |
| NAIC Staff | NAIC staff produces scenario statistics independently (including acceptance criteria), reviews, and provides sign off via email to Conning that scenarios are acceptable and ready to be posted to                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                          | the Conning website for use by Model Users. Documentation of the NAIC produced statistics and how they are calculated is available at <a href="#">[link TBD]</a> . NAIC staff will also check that the intended scenarios were correctly posted on Conning’s website. The NAIC’s scenario review workpapers will be provided                                                                                                                       |
| GOES (E/A) Subgroup      | Reviews and signs off on:<br>1. All material non-routine updates to the model, such as model recalibrations.<br>2. Any changes to acceptance criteria.<br>3. Any changes to the GOES Model Governance Framework.<br><br>Ahead of changes to any of the three items above, public exposure of changes will occur followed by adoptions in a public meeting. Communications of changes will occur through the GOES (E/A) Subgroup distribution list. |
| NAIC Committee Structure | Reviews and adopts <i>Valuation Manual</i> amendments and changes to RBC instructions.                                                                                                                                                                                                                                                                                                                                                             |

### C. Fallback Plan

A fallback plan can define expectations in the event of a disruption to the monthly scenario generation, validation, and publication process. While not all circumstances that could lead to a disruption in the posting of scenario files can be foreseen, this section will lay out broad categories of potential causes of disruption along with a corresponding mitigation plan.

1. Quarter-End and Year-End Scenario Files
  - a. Quarterly and Year-end scenario files have greater importance to insurance company financial reporting. Therefore, more robust fallback procedures will apply to the posting of these quarter-end and year-end files.
  - b. For month-end scenario files that do not fall on a quarter- or year-end, any delays to the posting of scenario files will be communicated along with an expected timeframe for resolution.
2. Communication of Scenario File Posting Disruption
  - a. The distribution list for the GOES (E/A) Subgroup will be utilized to communicate disruptions in the posting of scenario files.
  - b. All members, interested regulators, and interested parties will receive notice of the disruption.
3. Mitigation Plans by Category of Disruption

| Category                                         | Description                                                                                                                                          | Mitigation Plan                                                                                                       |
|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Minor Validation Error – Caught Prior to Posting | This situation would occur when an issue was found during the validation process by either Conning or the NAIC and the issue could be addressed such | NAIC Staff would communicate the issue as soon as it is discovered on the first business day following the month-end, |

|                                                  |                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                  | that scenarios could be posted by the second business day following the previous month-end.                                                                                                                                     | along with a timeframe for when scenarios are expected to be posted.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Major Validation Error – Caught Prior to Posting | This situation would occur when an issue was found during the validation process by either Conning or the NAIC that is unable to be addressed such that scenarios can be posted by the second business day following month-end. | NAIC Staff would communicate the issue as soon as it is discovered on the first business day following the month-end. Companies would be instructed to utilize prior month-end scenarios with adjustments as necessary for the current month's valuation. Model governance enhancements to avoid the issue would be developed, adopted by LATF and the LRBC WG, and implemented following the issue.                                                                                                                                                                                    |
| Minor Scenario Error – Caught after Posting      | This issue could occur when a user of the scenarios discovers an error with the scenario set after they have been posted to the scenario website that is expected to have an immaterial impact on company valuations.           | NAIC Staff would communicate the issue as soon as it is discovered. Model governance enhancements to avoid the issue would be developed, adopted by LATF and the LRBC WG, and implemented following the issue.                                                                                                                                                                                                                                                                                                                                                                          |
| Major Scenario Error – Caught after Posting      | This issue could occur when a user of the scenarios discovers an error with the scenario set after they have been posted to the scenario website that is expected to have a material impact to company valuations.              | NAIC Staff would communicate the issue as soon as it is discovered. A meeting of the GOES (E/A) Subgroup would be scheduled to fully disclose the issue and discuss potential remedies. If the scenario set fell on a quarter- or year-end, additional guidance may be given by regulators to address the handling of the error (e.g. guidance to estimate a top-side adjustment to reserves, utilize a scenario set from a previous month). Model governance enhancements to avoid the issue would be developed, adopted by LATF and the LRBC WG, and implemented following the issue. |
| Conning Scenario Website Down                    | The website <a href="https://naic.conning.com/scenariofiles">https://naic.conning.com/scenariofiles</a> is down and companies are unable to download scenario files.                                                            | NAIC Staff would communicate the issue as soon as it is discovered. Scenario files could be posted to the GOES Sharepoint site as an alternative for companies to download.                                                                                                                                                                                                                                                                                                                                                                                                             |
| Conning unable to generate scenario files        | Conning is unable to generate scenario files due to an issue such as cloud outage or other business continuity event.                                                                                                           | NAIC Staff would communicate the issue as soon as it is discovered, and a revised timeline for posting scenarios could be provided. The GEMS® software would be used by NAIC Staff to generate the scenarios.                                                                                                                                                                                                                                                                                                                                                                           |

III. Stakeholder Responsibilities

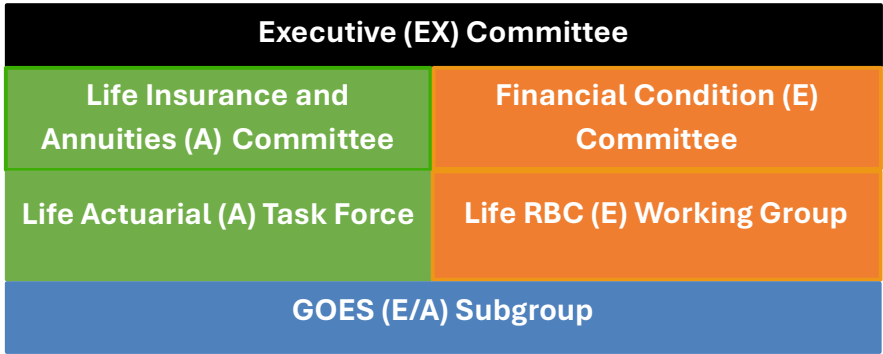
A number of stakeholders are involved in the implementation and maintenance of the model. Specific responsibilities are described in this Section.

A. NAIC Committee Structure

The NAIC Committee structure is shown in the graphic below. The GOES (E/A) Subgroup’s roles and responsibilities are discussed in Section III.B. The Subgroup is subordinate to both the Life Actuarial (A) Task Force (LATF) and the Life RBC (E) Working Group (LRBCWG).

The Life Insurance and Annuities (A) Committee is the parent committee for LATF, while the Financial Condition (E) Committee is the parent committee for LRBCWG. Recommended changes to the *Valuation Manual* and Life RBC Blanks/Instructions related to the GOES will be considered for adoption by LATF and LRBCWG before being considered by their respective parent committees.

In addition to having final approval on changes adopted by the subordinate groups, the Executive (EX) Committee has allocated funding to support the NAIC GOES initiative.



B. GOES (E/A) Subgroup

The GOES (E/A) Subgroup will own the GOES Model Governance Framework and be responsible for the approval of all updates to the Framework. As the Model Steward, the Subgroup will direct NAIC Staff as necessary to effectuate aspects of the Framework. The Subgroup will organize public calls where technical issues can be

discussed and feedback can be received from Subgroup members, interested regulators and interested parties. All regulator-only sessions will follow the NAIC's Policy Statement on Open meetings.

The Subgroup has the following 2025 Charges:

1. Monitor that the economic scenario governance framework is being appropriately followed by all relevant stakeholders involved in scenario delivery.
2. Review material economic scenario generator updates, either driven by periodic model maintenance or changes to the economic environment and provide recommendations.
3. Regularly review key economic conditions and metrics to evaluate the need for off-cycle or significant economic scenario generator updates and maintain a public timeline for economic scenario generator updates.
4. Support the implementation of an economic scenario generator for use in statutory reserve and capital calculations.
5. Develop and maintain acceptance criteria that reflect history as well as plausibly more extreme scenarios.

#### C. NAIC Staff

NAIC staff responsibilities are as follows:

1. Act under the direction of the GOES (E/A) Subgroup to support the implementation of the economic scenario generator as well as implement and monitor the model governance framework.
2. Bring any governance issues to the GOES (E/A) Subgroup for consideration.
3. Monitor the effectiveness of Conning's controls and validation procedures and recommend changes to the GOES (E/A) Subgroup as necessary.
4. Develop and maintain a process to efficiently produce and review scenario statistics (independent from Conning) for each monthly scenario release to evaluate whether scenarios are acceptable before providing them to Model Users.

#### D. GOES Vendor (Conning)

Under the terms of the Professional Services Agreement Between Conning, Inc. and the National Association of Insurance Commissioners, Effective September 30, 2020,

Conning has responsibility for model development, routine and more extensive model updates, monthly production of scenarios, maintenance of documentation, user support, and other items. Conning's specific responsibilities are described below.

1. Customization of the Models

Conning will customize the GEMS Scenario Files features and calibration of parameters to reflect any modifications adopted by state regulators to produce real-world interest rate, equity, and bond fund return scenarios for use in calculations of life and annuity Statutory reserves according to the *Valuation Manual* (e.g., VM-20, VM-21, VM-22) and capital under the NAIC RBC requirements (e.g., C3 Phase 1, C3 Phase 2). The resulting customized scenario files are referred to as the Basic Data Set. Scenario sets produced from the Basic Data Set are referred to as the NAIC Economic Scenario Files.

2. Maintenance of Conning Scenario Website

The NAIC website will contain a link to the Basic Data Set, validation reports, statistics, related tools, documentation, and training materials located on Conning's website. Access will be provided for Model Users regardless of whether they have licensed Conning's software. Model Users means users of the scenarios, including NAIC staff, state regulators, insurance companies, third-party consultants retained by state regulators and insurance companies, and any other person who makes use of the scenarios.

3. Monthly Production of Scenarios, Scenario Statistics, and Validation Reports

The month-end production items Conning is responsible for are listed in the Model Inventory File (see Section IV.C). The production process must be completed in time to post these deliverables by 4:00 PM Central Time on the first business day of the following month.

Companies have stressed the importance of meeting this deadline so that valuation work will not be delayed. Conning and NAIC staff will collaborate on creating efficiencies to prepare for this. The process of producing and reviewing all monthly deliverables, including execution of controls, will be tested and practiced before the GOES scenarios are adopted and become effective, with monthly scenario releases planned to begin 10/1/25.

Validation reports and additional statistics are expected to be delivered simultaneously with the NAIC Economic Scenario Files. A "dashboard" of how the

scenarios compare with acceptance criteria will be included with the statistical reports. See Section V.B for details on the validation process. A sample set of reports will be shown in Appendix A.

Conning will sign off on the controls listed in Section II.B and provide an attestation to NAIC Staff that they were performed, identifying any findings. NAIC Staff will produce and review statistics independently, and review the reports, attestation, and findings to determine whether the scenario set is acceptable. This must be done before posting the scenario files and validation report with each monthly scenario release.

10,000 scenario sets will be posted alongside the scenario selection tool and scenario picking data to allow Model Users to produce subsets. As background, Conning developed an Excel-based tool to create scenario subsets. The tool can select scenarios based on the same methodology used in the AIRG (i.e. based on a significance measure calculated from the 20-year UST) or a gross wealth factor (GWF) based on the Large Cap (S&P 500) equity fund. However, other methodologies to select scenarios may be more appropriate for companies exposed to other risks. For example, a writer of VA products may be more exposed to equity risk. The VM allows companies to use alternative scenario selection methodologies if they meet certain requirements (e.g. documentation that reserves and TAR are not materially understated) or biased downward.

Conning can calculate the UST significance measure and the Large Cap gross wealth factors by scenario and provide that information with each scenario set to use as inputs for the tool.

In the event a scenario set is deemed unacceptable, NAIC staff and Conning will work together to resolve the matter and provide timely communications to stakeholders according to the Fallback Plan documented in section II.C.

#### 4. Parameter Updates

Conning will develop parameter updates at a frequency determined by the GOES SG. The steps in this process are outlined in Section VI.

#### 5. Documentation

Conning will provide documentation as described in Section IX.

#### 6. Training Materials

Conning will provide robust training materials for use by Model Users and update these materials periodically as needed.

7. User Support

Conning will provide help desk support to Model Users of the NAIC Economic Scenario Files who have not licensed the software. This will include phone support as well as e-mail at [naicscenarios@conning.com](mailto:naicscenarios@conning.com) to allow the NAIC, state regulators and other Model Users to submit questions.

8. Field Testing

Conning will provide necessary support for field testing of the NAIC Economic Scenario Files under regulatory reserving and capital frameworks. Additional field testing could be necessary if a large change is made to the GOES (e.g. five-year recalibration) or if significant changes are made to an NAIC reserve or capital framework.

9. Additional Information to be Provided Annually

Conning will provide the following information annually:

- a. Back-testing report comparing the NAIC Economic Scenario Files projected results to what actually happened over the previous year.
- b. Summary information of the number and types of questions submitted to Conning via the support e-mail address, and steps taken to address these concerns (e.g., additional documentation created).

**E. Subject Matter Experts and Interested Parties**

Subject matter experts and interested parties play an important role in model governance. Industry involvement is critical, as companies will be users of model output and thus could identify issues, propose solutions and scope out testing that may not be readily apparent to regulators and NAIC staff.

Activities may include but are not limited to:

1. Bringing any model or governance issues to the GOES (E/A) Subgroup for consideration.
2. Reporting any issues with scenario delivery and user support to the GOES (E/A) Subgroup and NAIC Staff.

3. Reviewing results of planned model updates (see Section VI.A – VI.C) and providing independent feedback in public sessions of the GOES (E/A) Subgroup.
4. Recommending off-cycle model recalibrations where necessary (see Section VI.D), reviewing the results, and providing independent feedback in public sessions of the GOES (E/A) Subgroup.

## IV. Models Subject to the GOES Model Governance Framework

### A. Model Definition

ASOP No. 56 defines a model as follows:

“A simplified representation of relationships among real world variables, entities, or events using statistical, financial, economic, mathematical, non-quantitative, or scientific concepts and equations. A **model** consists of three components: an information **input** component, which delivers **data** and **assumptions** to the **model**, a processing component, which transforms **input** into **output**, and a results component, which translates the **output** into useful business information.”

Under this definition, all items listed in the Model Inventory File (see Section IV.C) are models.

### B. Model Risk Rating

The GOES (E/A) Subgroup assigns models a risk rating (high, medium, or low) depending on their complexity and materiality in terms of financial impact. Any models classified as high risk are subject to all aspects of model governance, while those classified as lower risk may be subject to more limited requirements. This risk-based focus promotes efficiency.

At this time, all models listed in the Model Inventory File are ranked as high risk for the following reasons:

1. The life insurance industry, regulators, and other stakeholders rely on the model output for reserve and capital calculations and issues with the GOES are therefore systemic.
2. Model errors may cause material financial impacts.
3. The models are highly complex.

### C. Model Inventory File

The Model Inventory File is an Excel spreadsheet listing each model subject to the GOES Model Governance Framework, along with the following details:

1. Model ID number

2. Model name
3. Model description
4. Product lines using the model output
5. Model status (active or inactive)
6. Model history, including the date of the last model validation and the date of the last model update
7. A link to model documentation, along with the date of the last documentation update
8. Ownership details (Model Developer, Model Owner, and Model Steward) and key point of contact
9. Risk rating of the model (high, medium, or low) and rationale for the rating

The Model Inventory File will be available on the NAIC website (location TBD). A sample file will be provided in Appendix B. The file will include the following models:

- Models producing the Basic Data Set (Treasury, Equity, and Corporate Bond models)
- SERT tool
- Scenario selection tool
- Conning scenario statistics tool
- NAIC scenario statistics tool

NAIC staff will have access to edit the Model Inventory File. Other model stakeholders will have Read access to the file.

The Model Inventory File will be updated whenever there is a new model, whenever a model is retired, and any time there is a change in one or more of the model details shown above.

## V. Model Selection and Validation Process

### A. Process and Criteria for Model Selection

The process for model selection is intended to ensure that each model meets its intended purpose. Models producing Treasury, equity, and corporate bond scenarios are selected based on the following considerations:

1. Stylized Facts  
Stylized facts describe qualitative criteria that scenarios produced by the GOES Treasury, Equity, and Corporate Bond models should achieve. A link to the current set of stylized facts is provided in Appendix B.

## 2. Acceptance Criteria

Acceptance Criteria are quantitative metrics that Treasury, Equity, and Corporate Bond scenarios generally should pass to be considered fit for their intended purpose. If one or more metrics fail the criteria, it may indicate that a revision to the model is necessary. However, judgment is required in making this decision. A criterion overall is not necessarily failed just because some subset of a table of criteria are outside their targets. A link to the current set of Acceptance Criteria is provided in Appendix B.

## 3. Model Office Testing

To aid in the initial selection of the Treasury, Equity, and Corporate Bond models, model office testing was done for Variable Annuities, Universal Life with Secondary Guarantees, and Term Life.

The GOES (E/A) Subgroup may consider the use of model office testing prior to implementation of material model updates.

## 4. Industry Field Testing

To aid in the initial selection of the Treasury, Equity, and Corporate Bond models, two industry field tests were done.

The GOES (E/A) Subgroup may consider industry field testing prior to implementation of material model updates. However, model office testing may be determined to be preferable depending on the resources, time, and cost required for a field test.

## B. Model Validation

Conning and NAIC Staff will perform validation procedures on all models used to produce output used in company on a monthly basis to ensure that model output is accurate. Any findings that arise from the model validation process will be handled as described in Section VII.

Key components of model validation include:

### 1. Input Validation

Input validation may include a review of source data, review of the initial treasury curve fit, assumption benchmarking, month-to-month model parameter comparisons, and spot checking.

### 2. Calculation Validation

Validation of calculations may include an independent full model replication, independent sample calculations, process approximation, formula inspection, testing of interim calculations, and testing of results. In addition to the Model

Developer's calculation validation, the Model Owner will perform user acceptance testing for any software modifications required to implement the NAIC model.

3. Output Validation

Output will be validated based on reports produced monthly along with the scenario sets (see Appendix A for sample reports). NAIC Staff will produce a "dashboard" included with the scenario statistics to compare the acceptance criteria and stylized facts, where relevant to monthly validation, to summarized scenario output. Thresholds and modifications to acceptance criteria for alternative starting environments will be considered as a "Day II" item after the initial implementation of the GOES.

When the GOES is recalibrated (e.g. resulting from five-year recalibration), scenario sets under multiple, varied, starting environments will be produced. The resulting statistical packages will be created and shared publicly ahead of approval of the new calibration.

4. An evaluation of the effectiveness of model testing procedures

5. Validation of controls and procedures

A detailed form including checklists and names of owners and reviewers for each key step will be used to ensure compliance with the sign-off responsibilities documented in Section II A.

## VI. Model Updates and Review

This section describes the types of scheduled model changes that will occur monthly, annually, and every 5 years, as well as off-cycle model changes. All model changes are subject to the change management process detailed in Section VIII.

### A. Monthly Model Updates

The Treasury model will be updated monthly to reflect starting conditions. This is documented in [GOES Model Documentation Placeholder]. Initial values for equity indices, equity volatilities, and corporate spreads will also be updated monthly.

### B. Annual Model Review and Update (If Necessary)

At the beginning of each year, Conning and NAIC Staff will undertake an annual review of the GOES and provide a back-testing report comparing the projected results to the actual previous year's data. Model findings that occurred over the past year would be included in the review along with an associated recommendation. Conning and NAIC Staff will make a recommendation as to whether the model parameters should be

revised or left unchanged. The back-testing report, along with the recommendation, will be posted on the NAIC/Conning scenario website in the first quarter of the year and provided to GOES (E/A) Subgroup leadership. If there is a recommendation to change the model parameters, a public discussion of the GOES (E/A) Subgroup will be called to discuss and determine a course of action. More complex changes, such as changes to the model form, are outside the scope of the annual model review.

Updates to the GEMS® software version used to produce the monthly GOES scenarios will also be considered during the annual review process. As part of Conning's normal course of business, they fix bugs and/or make enhancements to their software on a roughly monthly basis. However, all clients have the option of running previous versions of the software. During the annual process, Conning and NAIC Staff will perform testing of the GOES using the latest version of the software to determine whether there were any impacts to the scenarios. Results of the software version testing along with a recommendation on acceptance of a new version of the software will be posted to the NAIC/Conning Scenario website and provided to the leadership of the GOES (E/A) Subgroup. If there are any changes to the scenarios as the result of the software update, a meeting of the GOES (E/A) Subgroup would be held to discuss and determine a course of action.

To facilitate user acceptance testing, scenario sets using both the proposed and current GOES parameterization would be provided, with no fewer than 30 days granted for interested parties to provide comment. NAIC Staff will also prepare model office analyses to quantify the impact from annual model updates. All changes resulting from the annual model review would be targeted to go into effect for the June month-end.

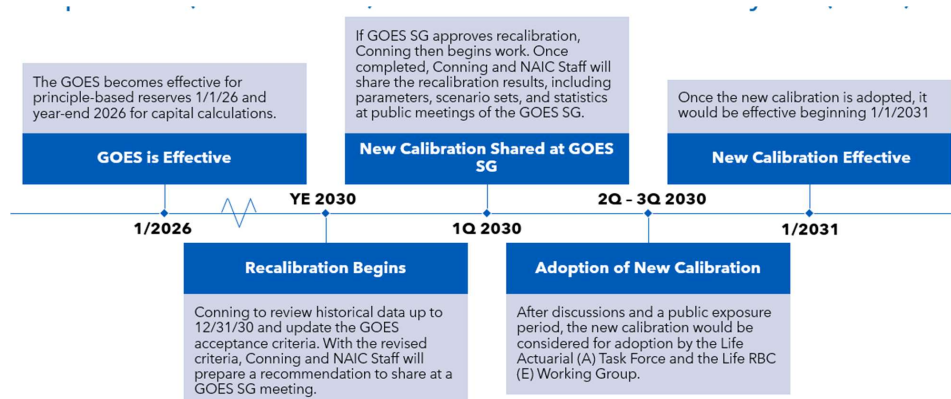
### C. 5-Year Model Recalibration

Conning will perform a periodic GOES recalibration process every five years. This will include the following steps:

1. Conning will conduct research on potential changes as requested by state regulators.
2. Conning will document and present potential changes to state regulators for exposure and adoption, and attend meetings as needed to respond to questions/comments received during the exposure period no less than 30 days. Materials to be provided for consideration of changes should include:
  - a. discussion on how changes were vetted for complex interactions between parameters,
  - b. attribution analysis showing the impact of each change,

- c. model office analysis to understand the potential impact prepared by NAIC Staff, and
  - d. documentation on the above in sufficient detail to allow independent review.
3. After discussion and approval at the GOES (E/A) Subgroup, the new calibration will be considered for adoption by the Life Actuarial (A) Task Force and the Life RBC (E) Working Group prior to going into effect at the beginning of a new 5-year recalibration cycle. As part of the approval process, the GOES (E/A) Subgroup, Life RBC (E) Working Group, and Life Actuarial (A) Task Force will consider whether the model is still fit for purpose.
  4. NAIC staff will modify model governance documents (Appendix B) as needed to reflect final adopted updates in a timely manner. Conning will provide evidence to the NAIC that changes were made appropriately.
  5. Conning will update documentation impacted by any changes.

Exhibit 5.C: 5-Year Recalibration Cycle



#### D. Off-Cycle Model Updates

As noted in Section III.B, one of the charges of the GOES (E/A) Subgroup is to review key economic conditions and metrics to evaluate the need for off-cycle or significant economic scenario generator updates and maintain a public timeline for economic scenario generator updates. The process for off-cycle model updates would be similar to that of the 5-year model recalibration, with Conning performing research and preparing a recommendation followed by public discussions, exposures, and

necessary approvals by the Life RBC (E) Working Group and the Life Actuarial (A) Task Force.

Items that may trigger an off-cycle update include, but are not limited to the following:

- A significant change in economic conditions
- A change in Federal Reserve policy
- Model findings
- Failure to meet a certain number or type of acceptance criteria, a trend towards failure of meeting an acceptance criterion, or GOES (E/A) Subgroup directed revisions to acceptance criteria.
- Change in insurance product offerings available on the market that requires new GOES functionality or emphasis on certain risk drivers.

#### E. Model Update Oversight

As noted in Section III.B, one of the charges of the GOES (E/A) Subgroup is to review material economic scenario generator updates, either driven by periodic model maintenance or changes to the economic environment and provide recommendations.

#### F. Software Update Procedures and Controls

Conning's formalized development process incorporates current philosophy regarding quality assurance and good engineering practices. Each step of Conning's process is formalized and monitored to ensure that our functionality is efficient and error-free. Requirements are carefully outlined, and the results are reviewed to confirm that each has been addressed. Conning goes through many iterations of testing and development to ensure that software updates achieve the goals that we have set forth.

Development of new functionality is governed by a product planning process that incorporates feedback from the marketplace, commitments made to customers and prospects, and internally generated enhancement ideas. These enhancements are prioritized to determine release content and a release calendar. Fixing bugs takes priority over new development when allocating resources.

All bug reports and enhancement requests are managed using software project management and service desk tools, regardless of whether the requests are coming from customers, prospects, internal software testing, or the product planning process. The tools support issue tracking and agile project management, helping

Conning plan, track, and manage their work efficiently. Source code is managed using a distributed version-control system for tracking changes during software development. Source code management tools facilitate tracking the sources and reasons for all code changes, allows reconstruction of any code branch at any point in time, facilitates merging of code changes from one code branch to another, and generally enhances the ability of multiple developers to simultaneously work on one code branch. Git is also linked into Conning's automated test system.

#### G. Software Enhancement Validation Procedures

Conning uses a combination of automated and manual testing to maintain code quality. Conning uses two separate automated testing systems. The first is a custom-built test platform which controls a set of dedicated machines (currently 25 in the pool) and uses them to run a series of automated tests on daily and weekly test cycles. Each automated test installs an up-to-date copy of our software from our revision control system and then runs a series of end-user test cases. The test cases use automated end-user interaction with the software user interface. Over 70 model input definition files are available for use in the automated test process, and these collectively test many different combinations of modules, model choices, parameter values, etc. Conning does not use client data for testing without permission.

Some of the automated testing involves running simulations in previously released versions of the software, then re-running the same simulation (using the same definition file) in a release-candidate version or a development version and then finally testing to see that the results are identical, ensuring backward compatibility and reproducibility. Other test cases exercise Definition Editor functionality via record-playback, while yet others test grid functionality. Some test cases run performance benchmarks to guard against the accidental introduction of performance bottlenecks. In addition to the automated testing, major releases go through extensive manual testing of the new functionality (for which automated tests may not yet have been created). Quantitative release criteria related to defect discovery must be met before the release is considered ready to ship.

The second test system is based on a DevOps platform that provides a comprehensive set of tools for testing, building, and deploying our software. The DevOps platform performs web-based tests and unit tests comprising a suite of 800 (and growing) web-based tests and over half a million-unit tests split into over 50 categories.

Conning maintains a repository of all previous versions of the software. Additionally, Conning software is designed to be backwards-compatible, so users can always reproduce results

generated in prior versions using their currently installed version. Furthermore, Conning has secure primary and backup data centers where files and data are replicated daily.

## VII. Process for Handling Model Findings

While every effort will be made to avoid errors in model calculations, inputs, and methodologies, it is possible that issues will be identified. “Model findings” refer to any issues discovered during model governance procedures or identified by a Model User or other stakeholder that have a financial impact for users of the model output. Model findings may be identified by any model stakeholder. Model Findings that occur during the monthly scenario generation and validation process have additional treatment detailed in section 2.C “Fallback Plan”.

### A. Tracking and Communication of Model Findings

All findings must be documented in the Model Findings Inventory, which tracks findings, estimated impacts, and remediation activity. When findings are remediated, the impact to model outputs must be documented and communicated to Model Users and the GOES (E/A) Subgroup.

### B. Risk Classification

To ensure effective monitoring and remediation priority, each finding will be assigned according to each of the risk categories below in the Model Findings Inventory.

#### 1. Error vs. Refinement

Errors are model findings where the scenario results deviate from the intended or expected results due to inappropriate inputs, software coding, or other factors. Refinements are model findings that involve a known model limitation, simplification, or desire to capture an emerging best practice. Errors should be communicated and addressed as soon as possible, and a review of controls should be performed to identify the root cause of the error and mitigate for future scenario releases.

#### 2. Materiality

Materiality will be driven based on the potential dollar and/or percentage impact on reserves, surplus, and risk-based capital. This will also include an assessment of whether it will impact a broad segment of the industry or a relatively small number of companies. An immaterial finding would be one that does not currently have a material financial impact and is expected to only decrease in materiality over time. Other factors influencing the consideration of materiality could include reputational impact and operational efficiency.

#### 3. Complexity and Resources Required to Address

The model findings inventory will provide insight on how resource intensive and complex a given finding will be to address.

### C. Remediating Findings

Material findings can be considered remediated if:

- It has been determined why the finding occurred;
- Any necessary changes to requirements have been determined and communicated to Model Users; and
- A model change is implemented to remove the finding.

### D. Model Findings Inventory

The Model Findings Inventory will be available on the NAIC website (location TBD). A sample file will be shown in Appendix B. The Model Findings Inventory will include the following information for each model finding:

1. Finding ID
2. Finding Status (Open, Deferred, Closed)
3. Date finding was identified
4. Finding type (Error, Simplification, Data Limitation, Model Limitation)
5. Risk classification (Material Complex Finding, Material Simple Finding, Immaterial Finding)
6. Detailed description of the finding
7. Model ID
8. Model name
9. How the finding was identified
10. Estimated impact of finding
11. Determination of why the finding occurred
12. Necessary changes to requirements because of the finding
13. Description of model change implemented to remove the finding
14. Date finding was last reviewed

NAIC staff will have access to edit the Model Findings Inventory. Other model stakeholders will have Read access to the file.

The Model Findings Inventory will be updated whenever there is a new finding, whenever a finding is remediated, and any time there is a change in one or more of the details shown above.

#### E. Emergency Model Findings and Expedited Process

Material errors discovered in the GOES scenarios could necessitate the need to be classified as an “Emergency Model Finding” and undergo an expedited process for remediation. Under this situation communication and quick public discussion of an issue would be important to determining rapid corrective action. If necessary, membership of the Life Actuarial (A) Task Force could consider a “Waiver of Task Force Procedure” under the Valuation Manual Section 1.A.4.

#### F. Incident Documentation and Remediation (Postmortem Reports)

After an incident of model error or operational error, the model owner will write a report documenting the incident, the resolution, the root causes, and follow-up actions taken to prevent it from happening again (i.e. “Postmortem”). Postmortems should include specifics about the effectiveness of controls and any changes to controls. The report will be available to all interested parties.

### VIII. Model Change Management

Model change management is the process to ensure that model changes are controlled and accurate. Three tools will be used to facilitate the change management process: 1) a Model Change Request Template, for submitting change requests; 2) a Model Change Request Inventory, to keep track of all change requests and their status; and 3) a Model Change Documentation Template, to ensure that changes are documented and made in a controlled manner. These tools are described in sections B and E below.

#### A. Model Change Categories

Each model change will be classified into one of the following model change categories, which determines the level of governance required.

| Model change category | Definitions                                                                                                               | Level of governance                                                              |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| Routine change        | Scheduled updates, e.g. to update monthly starting conditions                                                             | Full governance, except that model change requests and tracking are not required |
| Model enhancement     | Implementation of new methodology, incorporation of updates to existing requirements (e.g., VM-20 or VM-21 updates), etc. | Full governance                                                                  |

|                  |                                                                                                           |                                                  |
|------------------|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| Model correction | Remediation of model issues identified through model validation, result analysis, external feedback, etc. | Full governance                                  |
| Cosmetic updates | Updates to model coding or structure which do not impact model outputs                                    | See “Software Enhancement Validation Procedures” |

“Full Governance” means that the governance process will include:

- Tracking of the issue in the model change log
- Development of a recommendation for an enhancement by Conning and NAIC Staff
- A public exposure period of no shorter than 30 days prior to public discussion and consideration of adoption.
- Validation and demonstrations to confirm the validity of the model change.
- Updates to documentation, as necessary.

#### B. Model Change Requests and Tracking

Routine model changes supporting monthly production of scenarios do not require a formal change request, tracking, or consideration by the GOES (E/A) Subgroup.

Other model change requests may be initiated by members of the GOES (E/A) Subgroup, Interested Regulators, or Interested Parties. Requests may be made by completing a Model Change Request Template and sending it to the NAIC staff support person for the GOES Subgroup. The Model Change Request Template will be available on the NAIC website.

The Model Change Request Template is intended to be used as a mechanism for sharing and escalating concerns. For example, it may be used when Model Users feel the model is generating inappropriate results or is causing unusually large impacts.

Model change requests will be tracked in the Model Change Request Inventory, which will be maintained and kept up to date by NAIC staff. The Inventory will indicate which models are impacted by the requested change, along with an expected resolution date.

Material model changes will be considered by the GOES (E/A) Subgroup, and if adopted through the NAIC committee structure, will be carried out by the Model Developer, with oversight by the Model Owner and Model Steward.

Only NAIC staff will be given access to edit the Model Change Request Inventory. Other model stakeholders will have Read access to the file. The Model Change Request Inventory will be available on the NAIC website (location TBD).

#### C. Handling of Material Model Changes

There may be events that warrant significant changes to the GOES models, assumptions, and calibrations. In these situations, the GOES (E/A) Subgroup may consider the use of model office testing and/or field testing to analyze the impacts prior to implementation. This is not expected to be necessary for routine model updates.

Field testing is time-consuming and can be expensive. Where possible, model office testing may be considered as an alternative.

#### D. Modeling Environments

For the GEMS® software, Conning uses three separate modeling environments: a development environment, a test environment, and a production environment. These environments are based in separate work areas, with different permissions granted to users per their roles within the model governance framework.

All model changes occur in the development environment. Models are copied from the production environment into the development environment, where full editing access is available. Using this version of the model, developers make the necessary changes, conduct testing and complete the required change documentation to meet all governance requirements.

After changes are implemented, the model is copied to a distinct testing environment. Specific testing procedures are performed at the discretion of the model developer and model owner. The adequacy of testing will be reviewed by NAIC staff as directed by the GOES (E/A) Subgroup.

Once model development and testing are complete and full governance procedures have been followed to confirm and approve changes, models are promoted back to the production environment. In the production environment, only read access permissions are granted to the model developers to prevent any unintended changes to the production models. It is important to link a detailed description of the model changes to the newly promoted model to ensure clear version control.

#### E. Model Change Documentation Template

The Model Change Documentation Template (see Appendix B) will be used to ensure that changes are documented and made in a controlled manner.

The model developer is responsible for completing the template for each model change. The template contains the following information:

- Technical details of the changes made in the model
- Summary of the impact of changes on model outputs
- Summary of model testing results
- Model User acceptance testing and validation sign-off
- Any findings identified during the model change process

Only Conning and NAIC staff will be given access to edit the Model Change Documentation Template. Other model stakeholders will have Read access to the file. The Model Change Documentation Template will be available on the NAIC website [\(location TBD\)](#).

#### F. Model Documentation Updates

Model documentation must be updated to reflect changes made to existing models. Documentation updates are made by the model developer and reviewed by the model owner. The model steward is responsible for confirming documentation updates are made promptly.

#### G. NAIC Analysis and Review Tools

To facilitate their review of the GOES scenarios, the NAIC maintains the following tools:

- SAS Scenario Statistics Program
- Excel Scenario Statistics Workbook
- Excel Scenario Picking Data Independent Recalculation Tools
- [SERT Scenario Review Tool](#)
- [GOES Review and Signoff Template](#)

Enhancements and fixes to these tools will be managed via change logs. All changes will be peer reviewed to check for accuracy and documented in the change log. The change logs will be maintained for auditing purposes and available upon request from an interested party.

#### H. Maintenance of the Governance Framework

[The GOES Model Governance Framework will be exposed for routine comments and revisions at least annually. The requirement for routine annual exposures does not preclude the ability to hold off-cycle exposures and revisions. Each new version of the](#)

GOES Model Governance Framework that is adopted will be labeled with a version number. Versions will be made available on the same website as scenarios.

IX. Documentation Requirements

Conning will provide documentation on non-proprietary specifications and components of the GEMS Scenario Files used to develop the Basic Data Set and other models listed in the Model Inventory File. Access to this documentation is available to all Model Users. Documentation will be stored on Conning’s website. The NAIC’s website contains a link to Conning’s website which is available to all Model Users.

Conning’s Software Documentation Library contains more detailed documentation. It is available to Model Users who:

- Sign Conning’s Nondisclosure Agreement, or
- Consultants engaged by a Model User that have signed a Nondisclosure Agreement, or
- Choose to purchase the Robust Data Set, or
- Choose to license Conning’s API Tool, or
- Choose to license Conning’s software

Additional documentation will be included in the model governance spreadsheets (e.g. model inventory file, model change documentation template, etc.).

X. Access Controls

Access controls are important to prevent unauthorized changes (whether inadvertent or otherwise). The table below summarizes the access granted to models and supporting documents.

| Model or Document                                 | Access Level Granted                                   |            |               |
|---------------------------------------------------|--------------------------------------------------------|------------|---------------|
|                                                   | Conning                                                | NAIC Staff | Other Parties |
| Conning models listed in the Model Inventory File | Read/Write<br>Dan Finn                                 | None       | None          |
|                                                   | Other Conning staff trained on NAIC model requirements |            |               |

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|                                                                                                                                                                    |                                                                                               |                                                                                                                 |            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|------------|
|                                                                                                                                                                    | <u>Read Only</u><br>Other Conning<br>staff trained on<br>NAIC model<br>review<br>requirements |                                                                                                                 |            |
| NAIC Software and Programs<br>Used to Create Model<br>Statistics (for purposes of<br>validating Conning's metrics<br>periodically and after any<br>recalibrations) | None                                                                                          | <u>Read/Write</u><br>Brian Shade<br><u>McKayla Doyle</u><br>Jim Stinson<br><br><u>Read Only</u><br>Scott O'Neal | None       |
| Model Inventory File                                                                                                                                               | Read Only                                                                                     | <u>Read/Write</u><br>Scott O'Neal<br>Amy Fitzpatrick                                                            | Read Only  |
| Model Change Request Form                                                                                                                                          | Read/Write                                                                                    | Read/Write                                                                                                      | Read/Write |
| Model Change Request<br>Inventory                                                                                                                                  | Read Only                                                                                     | Read/Write                                                                                                      | Read Only  |
| Model Findings Inventory                                                                                                                                           | Read Only                                                                                     | Read/Write                                                                                                      | Read Only  |
| Model Change<br>Documentation                                                                                                                                      | Read/Write                                                                                    | Read/Write                                                                                                      | Read Only  |

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**Deleted:** A link will be provided. Discussion is needed to finalize these.

## XI. Appendices

### A. Sample Monthly Model Validation Reports and Statistics

Basic Data Set Validation Reports and Basic Data Set Additional Statistics files are available at <https://naic.conning.com/scenariofiles>.

### B. Supporting Documents

This section will contain links to supporting model governance documents.

| Document             | Link |
|----------------------|------|
| Stylized Facts       |      |
| Acceptance Criteria  |      |
| Model Inventory File |      |

|                                     |  |
|-------------------------------------|--|
| Model Findings Inventory            |  |
| Model Change Request Template       |  |
| Model Change Request Inventory      |  |
| Model Change Documentation Template |  |

### C. Version History

| Version Number | Version Date   | Description of Document Update    | Author                    |
|----------------|----------------|-----------------------------------|---------------------------|
| 01             | 9/23/2024      | Preliminary draft                 | Pat Allison, NAIC         |
| 02             | 10/29/25       | Second Exposure Draft             | Scott O’Neal, NAIC        |
| <u>03</u>      | <u>12/7/25</u> | <u>LATF Fall National Meeting</u> | <u>Scott O’Neal, NAIC</u> |

### D. Reference Documents

The following documents were used as references in the creation of this model governance document:

1. Materials discussed at the 5/1/24 meeting of the GOES (E/A) Subgroup
  - a. “A Framework for Developing, Evaluating, and Implementing Economic Scenario Generators (ESGs) – ESG Model Governance” presented by Tony Dardis, Vice Chairperson, Economic Scenario Generator Work Group (ESG WG), American Academy of Actuaries
  - b. ACLI document on model governance, presented by Brian Bayerle
  - c. “GOES E/A Subgroup – Model Governance”, presented by Scott O’Neal, NAIC Staff Support for the Life Actuarial (A) Task Force and the GOES E/A Subgroup
2. “Model Governance Checklist”, published August 2016 American Academy of Actuaries

3. “Model Governance Practice Note”, published April 2017 American Academy of Actuaries
4. “Actuarial Standard of Practice No. 56 Modeling”, December 2019
5. Professional Services Agreement Between Conning, Inc. and the National Association of Insurance Commissioners, Effective September 30, 2020
6. Comments on model governance from GOES field test participants

Draft: 12/1/25

Generator of Economic Scenarios (GOES) (E/A) Subgroup  
Virtual Meeting  
October 29, 2025

The GOES (E/A) Subgroup of the Life Risk-Based Capital (E) Working Group and the Life Actuarial (A) Task Force met Oct. 29, 2025. The following Subgroup members participated: Mike Yanacheak, Chair (IA); Peter Weber, Vice Chair (OH); Ted Chang (CA); Wanchin Chou (CT); Matt Cheung (IL); Scott Shover (IN); Ben Slutsker (MN); William Leung (MO); Seong-min Eom (NJ); William B. Carmello (NY); Rachel Hemphill (TX); and Craig Chupp (VA).

1. Adopted Revisions to Corporate Model Calibration

Daniel Finn (Conning) said that two issues with the bond fund scenarios in recent releases of the GOES scenario sets had been identified by interested parties. The first issue is that the linkage from the corporate model is incorrectly linked to unfloored Treasury scenarios rather than the post-flooring values, which affected the Dec. 31, 2024, March 21, 2025, and June 30, 2025, scenario sets. Finn said that the second issue is a misalignment of the bond fund excess returns with the state insurance regulators' adopted acceptance criteria. As a result of the issues, Finn noted that the scenario sets up to June 30, 2025, had been pulled from the website and that a recalibration had been performed on the corporate model.

Finn then walked through the results of the corporate model recalibration that showed how closely the average excess returns in projection years 20 through 30 matched the acceptance criteria under a range of starting conditions.

Iouri Karpov (Prudential) asked why there was still some movement in the model results under the different starting conditions, noting that the American Academy of Actuaries (Academy) had chosen the acceptance criteria target to be based on projection years 20 through 30, as it expected that the model would be stable at that point. Finn noted that some reversion of the spread was still occurring in those years, and it was particularly noticeable in starting spread environments that were far from the long-term targets.

Matt Kauffman (Moody's Analytics) asked what rate basis the average excess returns were based on, and Finn replied that it was based on semi-annual par.

Hal Pedersen (Academy) asked if Conning and the NAIC would re-release all the scenarios that had been shared as part of the trial process. Finn said it intends to re-release all the scenario files that had been impacted by the issues with the bond funds (Dec. 31, 2024, March 21, 2025, June 30, 2025, and Sept. 30, 2025). Pedersen then asked if the multipliers Conning had described would be utilized for all production scenario sets going forward, which Finn confirmed.

Brian Bayerle (American Council of Life Insurers—ACLI) asked whether the Academy would need additional time to review the new corporate calibration. Pedersen said that the Academy had expressed concerns about the corporate model in the past, but it would review the scenarios when released and provide feedback.

Chang made a motion, seconded by Weber, to adopt the proposed revisions to the corporate model for future scenario releases and re-releases of the Dec. 31, 2024, March 21, 2025, June 30, 2025, and Sept. 30, 2025, scenarios. The motion passed unanimously.

2. Re-Exposed Revisions to the GOES Model Governance Framework

Scott O’Neal (NAIC) walked through a presentation (Attachment A) that highlighted recent revisions to the GOES Model Governance Framework.

Weber made a motion, seconded by Cheung, to expose the revised GOES Model Governance Framework for a 21-day public comment period ending Nov. 18. The motion passed unanimously.

### 3. Exposed NAIC Scenario Review and Validation Procedures

O’Neal said that the NAIC wants to be transparent about the procedures in place for reviewing the monthly GOES scenario releases at the NAIC and is looking for feedback on how it could improve its review. O’Neal discussed the NAIC’s scenario review workpapers, including the: 1) review and sign-off template; 2) the consolidated statistics workbook and acceptance criteria dashboard; 3) the stochastic exclusion ratio test (SERT) scenario review template; and 4) the scenario picking data independent recalculation tools.

Cheung made a motion, seconded by Weber, to expose the NAIC’s scenario review workpapers for a 21-day public comment period ending Nov. 18. The motion passed unanimously.

Having no further business, the GOES (E/A) Subgroup adjourned.

SharePoint/NAIC Support Staff Hub/Member Meetings/A CMTE/LATF/2025-3-Fall/GOES SG Calls/10 29/Oct 29 Minutes.docx

## Agenda Item 5

Receive an Update on Actuarial Guideline LIII—Application  
of the Valuation Manual for Testing the Adequacy of Life  
Insurer Reserves (AG 53) Reports

# Actuarial Guideline 53 review update

Fred Andersen, FSA, MAAA  
12/7/2025

## AG 53 background

- **Actuarial Guideline 53**
  - Requires disclosures and asset-related information for 250+ life insurers
  - How their cash-flow testing models address asset risks & ensure reserve adequacy

## AG 53 / VM-30 cash-flow testing overview

- Projections over multiple scenarios
  - Essentially a comparison of:
    - (A) Reserve, premium, and investment return inflows, to
    - (B) Claim payment and expense outflows ...
  - $A > B$  implies positive cash-flow testing results & adequate reserves

## Predictability of factors

- Investment and claim cash flows are needed for CFT projections
- Trends:
  - More complex assets
    - May be more difficult to predict investment cash flows
  - More complex product design
    - May be more difficult to predict claim cash flows

## Handling of unpredictability of investment cash flows

- Traditional handling of investment cash flows in CFT
  - Fixed income coupons projected
  - **Interest rate / ALM risk**
    - Robust modeling
    - Treasury rate scenarios projected (deterministic or stochastic)
      - Modeling of reinvestment risk and disintermediation risk
        - Low rate scenario: low reinvestment returns, prepayments, calls
        - High rate scenario: depleted asset values, dynamic lapses
  - **Default / underperformance risk**
    - Typically simplistic modeling
      - Flat deduction for defaults, e.g., 30 basis points

## Handling of unpredictability of investment defaults / underperformance

- “Traditional” assets
  - Flat bp default assumption may make sense
  - Fairly predictable risk and risk profile, minimal fat tail risk
- Structured or other more complex assets
  - Potential different risk profile than with traditional assets
    - Especially for lower tranches
    - Higher expected returns, higher potential for major losses (fat tail risk)
  - AG 53 company filings generally show similar simplistic modeling approaches for structured and traditional assets
    - A basis point deduction from gross spreads that’s the same in all scenarios

## AG 53 reviews

- Initial focus on reigning in outlier net yield assumptions has indirectly addressed concerns
  - AG 53: if simplistic modeling, add conservatism
- Current focus: are aggressive but not “outlier” net yield assumptions appropriate?
- Section 4B of AG 53:

Model Rigor – Where significant risks associated with complex, projected high net yield assets are not adequately captured with traditional modeling techniques, more rigorous modeling of those risks should occur.

- Initiating conversations with targeted companies
  - Those with high exposures and fairly aggressive net yield assumptions without robust default / underperformance modeling

## CFT modeling related to complex product design

- Traditional deferred annuity:
  - Dynamic lapses are key factor
  - Significant uncertainty until very recently on extent of lapses in rising interest rate environment; more data coming in
- Complex versions of deferred annuities
  - Guaranteed lifetime withdrawal benefits
    - Perhaps GLWB options with significantly higher present value than cash value
  - Level of confidence in assuming policyholders will select lower-value option?
  - Impacts claim cash flows (amounts and timing)
- Perhaps lessons from VM-22 revision that could apply to VM-30 CFT reports

## Combination investment / policyholder behavior risk

- Trend: more illiquid assets supporting annuities
- Complex product design: includes more policyholder optionality
- Optionality means potential for surprise cash flow needs
- Is the possibility of surprise cash flow needs appropriately modeled?
  - Base assumptions are typically well thought out and set
  - However, volatility resulting from uncertainty is typically not reflected
- **Key: what factors are uncertain and impactful?**
  - Or combination of factors

## Purpose of cash flow testing

- Ensure reserve adequacy in moderately adverse scenarios
- Reserves not needed for entire tail risk but may be needed to reflect tail risk
  - CTE concept
- We do not want under-reserving & “rainy day” money removed from the company due to:
  - Reliance on high returns from risky assets
  - Inability or unwillingness to model key investment, policyholder behavior, or combination risks

## Baseline for a couple of examples

- Product: Annuity with GLWB
  - \$100,000 cash value
  - \$120,000 present value of GLWB
  - Assumed 10% GLWB election
  - Reserve held: 102,000
- Assets held: Illiquid, non-agency residential mortgage-backed securities (RMBS)

## Example 1 - capturing of asset risks

- Traditional modeling
  - NY 7 Treasury scenarios
  - Perhaps 1,000 stochastic Treasury scenarios
  - Capture of interest rate risk
    - Basic reinvestment and disintermediation risk
    - How RMBS values and cash flows react in different Treasury rate environments
    - Positive cash flows in most / all scenarios
  - Capture of default / underperformance risk
    - 50 bp deducted from RMBS gross reinvestment returns in all scenarios
  - **Does this capture all risks?**

## Example 1 - other risks

- Scenario of a distressed residential mortgage market
  - Does projecting along Treasury rate scenarios and 50 bp defaults appropriately capture this risk?
    - Consideration of probability / uncertainty of occurrence
    - Severity of impact of potential occurrence on RMBS

## Example 1 - math

- \$102 reserve
- \$102 of starting assets (RMBS in simplified example) in CFT
- 7% gross yield, 0.5% defaults, 0.3% investment expenses
- 6.2% net yield assumed for 30 years
- Moderately adverse Treasury scenario results in slightly positive ending surplus

## Example 1 - math

- If residential mortgage distress occurs at some point over 30 years
- Such that average yield over time is 5.2% instead of 6.2%
- The result is a 20% reserve understatement
- Without modeling distress specific to this asset type
  - This 20% reserve understatement may not be understood to be a possibility

## Example 2 - policyholder behavior risks

- Product: Annuity with GLWB
  - \$100,000 cash value
  - \$120,000 present value of GLWB
  - Assumed 10% GLWB election
  - Reserve held: 102,000
- Assets held: Illiquid

## Example 2

- Traditional modeling
  - NY 7 and perhaps stochastic Treasury scenarios
  - Capture of policyholder behavior
    - Estimate of % selecting cash value vs. guaranteed withdrawal stream
      - Often without fully credible data
  - **Does this adequately capture policyholder behavior risks?**

## Example 2 - other risks

- Scenario of more policyholders selecting the guaranteed withdrawal income than expected
  - Does projecting 10% of policyholders selecting guaranteed withdrawal income appropriately capture this risk?
    - Consideration of probability / uncertainty of occurrence
    - Severity of impact of potential occurrence on RMBS

## Example 2 - math

- \$102 reserve
- \$102 of starting assets in CFT
- What if 25% of policyholders (instead of 10% assumed) select \$120 of GLWB income instead of \$100 cash value?
- Result is negative ending surplus and reserve understatement

## Details on likely next steps

- Engage with companies regarding these assumptions
- May involve a look at VM-30, not just AG 53
- Develop list of questions, focusing initially on non-traditional asset and policyholder behavior risks

## Sample questions re: policyholder behavior assumptions

- Provide commentary and metrics regarding the value assumed to be given up by:
  - Policyholders not optimally utilizing guarantees in various interest rate scenarios.
  - Policyholders lapsing their annuity guarantees, particularly in down interest rate scenarios.

## Sample questions re: policyholder behavior assumptions

- Provide additional commentary and metrics regarding disintermediation risk in a pop-up scenario in light of asset value decline.
- Provide the assumption on the percent of MYGAs that are assumed to renew versus lapse at the end of the guarantee period.

## Sample questions re: policyholder behavior assumptions

- For each of these items (from the last two slides):
  - Comment on the level of confidence in the base assumption
  - Provide sensitivity testing reflecting uncertainty about relevant assumptions and impacts

## High-level next steps

- VAWG engagement with companies on this topic through AG 53 reviews
  - Prioritizing companies with complex assets and complex products
  - Where there's apparent risk beyond AG 53, consider VM-30 review
- Ensuring asset, policyholder behavior, and combination risks are appropriately addressed in upcoming AG 55 filings
- Share general findings at upcoming LATF meetings

## Agenda Item 6

Hear an Update on International Mortality from  
the Society of Actuaries (SOA)



# SOCIETY OF ACTUARIES RESEARCH UPDATE TO LATF – INTERNATIONAL MORTALITY

December 7, 2025

R. Dale Hall, FSA, MAAA, CERA, CFA  
Managing Director of Research

*The material and information contained in this presentation is for general information only. It does not replace independent professional judgment and should not be used as the basis for making any business, legal or other decisions. The Society of Actuaries assumes no responsibility for the content, accuracy or completeness of the information presented.*

## Global Experience Studies

- Canada individual life mortality tables
  - Annual review of mortality data from Canadian direct writers produced by Canadian Institute of Actuaries (CIA)
  - Most recent analysis is released in October 2025 with analysis on 2018-2023 time period
  - High proportion of life industry covered in these studies
  - Typically presented as A/E ratios on CIA2014 table

## Global Experience Studies

- CIA2014
  - Review of previous standard tables noted emerging experience slopes by age or duration no longer fit well
  - Released in 2022 based on experience in policy years 2009-2019
  - 89 M life-years of exposure; 675 K deaths
  - Tables constructed by
    - Sex
    - Smoker Status
    - Age Last/Nearest

## Global Experience Studies

- China individual life mortality tables
  - Produced by China Association of Actuaries (CAA) Mortality Investigation Office
  - Generally published every 10 years
  - SOA was an active participant and reviewer of the July 2016 release of the “3<sup>rd</sup> Mortality Table”
  - Data collected and analyzed from 2010-2013
  - High proportion of life industry covered
  - 4<sup>th</sup> table CL (2025) released in October 2025

## Global Experience Studies

- 3<sup>rd</sup> Mortality Table
  - Data from 9 direct writing insurance companies and 1 reinsurance company; 93% of life industry
  - Calendar years 2010-2013
  - 340 M Policies, 1.85 M Deaths
  - Tables constructed by
    - Product Type: Protection; Savings; Pension
    - Sex
    - Unismoke; Age Last Birthday; Ultimate Only

## Agenda Item 7

Consider Exposure of APF 2025-18 Pension Risk

Transfer Reinvestment Guardrail

**Life Actuarial (A) Task Force/ Health Actuarial (B) Task Force  
Amendment Proposal Form\***

1. Identify yourself, your affiliation and a very brief description (title) of the issue.  
  
Seong-min Eom, Chief Actuary, Life and Health, New Jersey Department of Banking and Insurance  
  
VM-22 principle-based reserving (PBR) for non-variable annuities
2. Identify the document, including the date if the document is “released for comment,” and the location in the document where the amendment is proposed:  
  
January 1, 2026, NAIC Valuation Manual  
  
VM-22 Sections 3.F and 4.D; VM-31 Section 3.F
3. Show what changes are needed by providing a red-line version of the original verbiage with deletions and identify the verbiage to be deleted, inserted or changed by providing a red-line (turn on “track changes” in Word®) version of the verbiage. (You may do this through an attachment.)  
  
See below
4. State the reason for the proposed amendment? (You may do this through an attachment.)  
  
Regulators and the industry have worked constructively over the past several years to try to develop reserve requirements that ensure policyholders are protected and are commensurate to the features and risks inherent in the business. While considerable progress has been made, the industry has expressed concerns with the prescribed investment guidelines within the framework that it believes embed “non-economic” conservatism and will inflate reserve requirements beyond an appropriate level of conservatism.  
  
Based on these views, it appears that the industry will continue to pursue measures, such as offshore asset-intensive reinsurance that is focused on reducing the Total Asset Requirement rather than just transferring risk that may enable it to increase alignment between regulatory requirements and their “economic” assessment of risks, which sometimes significantly reduces the total assets available to fund policyholder demands. Such arrangements may also reduce transparency for both the direct writer and the regulator of the direct writer of the business.  
  
While work on VM-22 is at an advanced stage, it is important for regulators and the NAIC to continuously consider if the proposed updates will deliver the outcomes the state regulators are hoping to achieve. New Jersey believes there is an opportunity to address a specific concern relating to Pension Risk Transfer annuities where further updates should be pursued. With this context in mind, please see the proposed amendments to VM-22 below. The proposal would enable an insurer to establish reserves for Pension Risk Transfer Annuities (which is one of the more significant blocks subject to asset-intensive reinsurance) based on a calculation that employs their own asset and reinvestment assumptions that are consistent with the company’s investment policy, subject to a guardrail. Appointed Actuaries would need to justify company asset and reinvestment assumptions within VM-31 and ensure compliance with the guardrail.  
  
Different asset and reinvestment assumptions for group annuities supporting pension risk transfer transactions can be justified based on unique considerations. Only large and sophisticated companies are

capable of (i) sourcing the significant amounts of capital required for this business, (ii) providing sophisticated asset management capabilities, and (iii) administering the complex recordkeeping, financial reporting and contractual obligations (e.g., retiree payments) required for this business that support the retirement payments of US retirees.

Further, the US Department of Labor imposes a fiduciary standard on Plan Sponsors in choosing an insurer. When a group annuity is chosen by a Plan Sponsor, significant consideration is given to the investment capabilities and guidelines of the insurer. Investment guidelines are already subject to regulatory review and approval in many states as part of a separate account's plan of operations. Further, group annuities supporting Pension Risk Transfer annuities generally have no optionality (i.e., no cash value and the annuity payment schedule cannot be modified).

By adopting these standards, it is less likely that industry would utilize offshore reinsurance given little difference between US regulatory requirements and their "economic" assessment of risks. This would enable direct US regulatory oversight of this significant product which insures the retirement payments of US retirees.

\* This form is not intended for minor corrections, such as formatting, grammar, cross-references or spelling. Those types of changes do not require action by the entire group and may be submitted via letter or email to the NAIC staff support person for the NAIC group where the document originated.

NAIC Staff Comments:

| Dates: Received                    | Reviewed by Staff | Distributed | Considered |
|------------------------------------|-------------------|-------------|------------|
| 12/1/25                            |                   |             |            |
| Notes: <a href="#">APF 2025-18</a> |                   |             |            |

VM-22 Section 3.F

2. The Payout Annuity Reserving Category and Accumulation Reserving Category may be aggregated only if they meet the following criteria:

- a. The company manages the risks of the contracts within both categories in an integrated risk management process.
- b. The contracts within both categories are managed within a single portfolio, or portfolios with the same ALM strategy.

3. For the purposes of calculating stochastic reserves, the stochastic exclusion test, and determining the final VM-22 reserves, groups of contracts for which the company calculates a DR, pursuant to the requirements in Section 7.E, shall not be aggregated with any groups of contracts that do not calculate a DR.

4. The reserve may be determined in aggregate across various groups of contracts within each Reserving Category, or within the combined Accumulation and Payout reserving categories following Section 3.F.2, as a single model segment when determining the SR or DR, with the following exception.

Pension Risk Transfer Annuities utilize different spread, default, and investment strategy assumptions than other products as described in Sections 4.D.3 and 4.D.4. If aggregating Pension Risk Transfer Annuities with other products then the Pension Risk Transfer Annuities cannot be in the same model segment as other products. This requirement is to ensure that in the aggregation approach the products other than Pension Risk Transfer Annuities do not reflect the spread, default, and investment strategy assumptions for Pension Risk Transfer Annuities.

5. To the extent that aggregation results in more than one model segment, the aggregate reserve for each reserving category, or within the combined Accumulation and Payout reserving categories following Section 3.F.2, shall be calculated as follows:

- a. If the company uses the NAER method described in Section 4.B.1.a:
  - i. Project the accumulated deficiencies as described in Section 4.A and take the present value using the NAER as described in Section 4.B.2 for each model segment.
  - ii. Combine the present values for each model segment and take the greatest present value in aggregate for each scenario. The aggregate scenario reserve shall equal the sum of the initial assets of each model segment and the greatest present value of the aggregated deficiencies, less the aggregate PIMR. The resulting aggregate scenario reserve for a given scenario shall not be less than the aggregate cash surrender value on the valuation date.
  - iii. Calculate the CTE (70) of the aggregate scenario reserves
- b. If the company uses the direct iteration method described in Section 4.B.1.b:
  - i. Calculate the starting amount of assets as described in Section 4.B.1.b for each scenario of each model segment.
  - ii. Add the starting amount of assets of each scenario for all model segments together and subtract the aggregate PIMR. The resulting aggregate scenario reserve for a given scenario shall not be less than the aggregate cash surrender value on the valuation date.
  - iii. Calculate the CTE (70) of the aggregate scenario reserves.

c. The benefit of aggregation and how it is allocated across multiple model segments within a reserving category and/or across reserving categories, pursuant to Section 3.F.2, shall be disclosed in VM-31

#### VM-22 Section 4.D.3

- a. General account assets shall be projected, net of projected defaults, using assumed investment returns consistent with their book value and expected to be realized in future periods as of the date of valuation. Initial assets that mature during the projection and positive cash flows projected for future periods shall be invested in a manner that is representative of and consistent with the company's investment policy, subject to the following requirements:
  - i. The final maturities and cash flow structures of assets purchased in the model, such as the patterns of gross investment income and principal repayments or a fixed or floating rate interest basis, shall be determined by the company as part of the model representation;
  - ii. The combination of price and structure for fixed income investments and derivative instruments associated with fixed income investments shall appropriately reflect the projected Treasury Department curve along the relevant scenario and the requirements for gross asset spread assumptions stated below;
  - iii. For purchases of public non-callable corporate bonds, follow the requirements defined in VM-20 Sections 7.E, 7.F and 9.F for products other than Pension Risk Transfer Annuities. The prescribed spreads reflect current market conditions as of the model start date and grade to long-term conditions based on historical data at the start of projection year four. For Pension Risk Transfer Annuities reflect company spread assumptions and describe the assumptions in VM-31;
  - iv. For transactions of derivative instruments associated with fixed income investments, reflect the prescribed assumptions in VM-20 Section 9.F for interest rate swap spreads for products other than Pension Risk Transfer Annuities. For Pension Risk Transfer Annuities reflect company interest rate swap spread assumptions and describe the assumptions in VM-31;
  - v. For purchases of other fixed income investments, if included in modeled company investment strategy, set assumed gross asset spreads over U.S. Treasuries in a manner that is consistent with, and results in reasonable relationships to, the spreads described in items iii and iv above for public non-callable corporate bonds and interest rate swaps.
- b. Notwithstanding the above requirements, the aggregate reserve shall be the higher of that produced by the modeled company investment strategy and that produced by substituting an alternative investment strategy in which the fixed income reinvestment assets have the same weighted average life (WAL) as the reinvestment assets in the modeled company investment strategy and are all public non-callable corporate bonds with gross asset spreads, asset default costs, and investment expenses by projection year that are consistent with a credit quality blend of at least 5% Treasury, 15% PBR credit rating 3 (Aa2/AA), and 80% PBR credit rating 6 (A2/A) for products other than Pension Risk Transfer Annuities.
  - i. For Pension Risk Transfer Annuities, the alternative investment strategy reflects the prescribed spreads and defaults in VM-20 Section 9.F for 100% PBR credit rating 9 (Baa2/BBB) plus a spread increase of 0.50% to account for illiquidity spreads above BBB public non-callable corporate bonds and for default assumptions different from prescribed VM-20 defaults. Describe the portion of company spread assumptions attributable to illiquidity risk and the default assumptions in VM-31.
- c. Any disinvestment shall be modeled in a manner that is consistent with the company's investment policy and that reflects the company's cost of borrowing where applicable, provided that the assumed cost of borrowing is not lower than the rate at which positive cash flows are reinvested in the same time period, taking into

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**Deleted:** 5% Treasury¶

¶ 15% PBR credit rating 3 (Aa2/AA)¶

¶ 80% PBR credit rating 6 (A2/A)

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account duration, ratings, and other attributes of the borrowing mechanism. Gross asset spreads used in computing market values of assets sold in the model shall be consistent with, but not necessarily the same as, the gross asset spreads in Section 4.D.3.a.iii and Section 4.D.3.a.v., recognizing that initial assets that mature during the projection may have different characteristics than modeled reinvestment assets.

#### Section 4.D.4

a. Cash flows from general account fixed income assets, including starting and reinvestment assets, shall be reflected in the projection as follows:

- i. Model gross investment income and principal repayments in accordance with the contractual provisions of each asset and in a manner consistent with each scenario.
- ii. Reflect asset default costs, as prescribed in VM-20 Section 9.F for products other than Pension Risk Transfer Annuities and as company anticipated experience assumptions for Pension Risk Transfer Annuities, and anticipated investment expenses through deductions to the gross investment income. Describe company default assumptions for Pension Risk Transfer Annuities in VM-31.
- iii. Model the proceeds arising from modeled asset sales and determine the portion representing any realized capital gains and losses.
- iv. Reflect any uncertainty in the timing and amounts of asset cash flows related to the paths of interest rates, equity returns or other economic values directly in the projection of asset cash flows. Asset defaults for products other than Pension Risk Transfer Annuities are not subject to this requirement, since asset default assumptions for products other than Pension Risk Transfer Annuities must be determined by the prescribed method as noted in Section 4.D.4.a.ii above.

#### VM-31 Section 3.F.6

6. General Account Assets – The following information regarding the general account asset assumptions used by the company in performing a principle-based valuation under VM-21 or VM-22:

- a. Modeled Company Investment Strategy and Reinvestment Assumptions – Description of the modeled company investment strategy (before the comparison to the alternative investment strategy), including asset reinvestment and disinvestment assumptions, and documentation supporting the appropriateness of the modeled company investment strategy compared to the actual investment policy of the company.
- b. Alternative Investment Strategy – Documentation demonstrating compliance with VM-21 Section 4.D.4.b or VM-22 Section 4.D.3.b showing that the SR is the higher of that produced using the modeled company investment strategy and the alternative investment strategy
- c. Grouping of Equity Investments – Description of the approach and rationale used to group general account equity investments.
- d. Prepayment, Call and Put Functions – Description of any prepayment, call and put functions
- e. Investment Expenses – Description of the investment expense assumptions
- f. Spreads – Description of the spread assumptions, including the portion of the spread assumptions attributable to illiquidity and other types of risk, and the interest rate swap spread assumptions
- g. Defaults – Description of the default assumptions, including defaults by asset type, quality, and tenor

## Agenda Item 8

Consider Exposure of APF 2025-16 Valuation

Manual Reinvestment Guardrail

**Life Actuarial (A) Task Force/ Health Actuarial (B) Task Force  
Amendment Proposal Form\***

1. Identify yourself, your affiliation and a very brief description (title) of the issue.  
  
Rachel Hemphill, TDI, Update reinvestment guardrail for VM-20, VM-21, and VM-22.
2. Identify the document, including the date if the document is “released for comment,” and the location in the document where the amendment is proposed:  
  
VM-20 Section 7.E.1.g, VM-21 Section 4. D.4.b, VM-22 Section 4.D.3.b  
  
Valuation Manual, January 1, 2026 Edition
3. Show what changes are needed by providing a red-line version of the original verbiage with deletions and identify the verbiage to be deleted, inserted or changed by providing a red-line (turn on “track changes” in Word®) version of the verbiage. (You may do this through an attachment.)

**VM-20 Section 7.E.1.g**

g. Notwithstanding the above requirements, the modeled reserve shall be the higher of that produced by the modeled company investment strategy and that produced by substituting an alternative investment strategy in which the fixed income reinvestment assets have the same weighted average life (WAL) as the reinvestment assets in the modeled company investment strategy and are all public non-callable corporate bonds with gross asset spreads, asset default costs and investment expenses by projection year that are consistent with a credit quality blend of at least:

- i. 5% Treasury
- ii. 15% PBR credit rating 3 (Aa2/AA)
- iii. 40% PBR credit rating 6 (A2/A)
- iv. 40% PBR credit rating 9 (Baa2/BBB)

**Deleted:** a minimum credit quality blend of 50% PBR credit rating 6 (A2/A) and 50% PBR credit rating 3 (Aa2/AA).

**VM-21 Section 4.D.4.b**

b. Notwithstanding the above requirements, the SR shall be the higher of that produced by the modeled company investment strategy and that produced by substituting an alternative investment strategy in which the fixed income reinvestment assets have the same weighted average life (WAL) as the reinvestment assets in the modeled company investment strategy and are all public non-callable corporate bonds with gross asset spreads, asset default costs, and investment expenses by projection year that are consistent with a credit quality blend of at least:

- i. 5% Treasury
- ii. 15% PBR credit rating 3 (Aa2/AA)
- iii. 40% PBR credit rating 6 (A2/A)
- iv. 40% PBR credit rating 9 (Baa2/BBB)

**Deleted:** a minimum credit quality blend of 50% PBR credit rating 6 (A2/A) and 50% PBR credit rating 3 (Aa2/AA). ¶

**VM-22 Section 4.D.3.b**

Notwithstanding the above requirements, the aggregate reserve shall be the higher of that produced by the modeled company investment strategy and that produced by substituting an alternative investment strategy in which the fixed income reinvestment assets have the same weighted average life (WAL) as the reinvestment assets in the modeled company investment strategy and are all public non-callable corporate bonds with gross asset spreads, asset default costs, and investment expenses by projection year that are consistent with a credit quality blend of at least:

- i. 5% Treasury
- ii. 15% PBR credit rating 3 (Aa2/AA)
- iii. 40% PBR credit rating 6 (A2/A)

**Deleted:** 80

iv. 40% PBR credit rating 9 (Baa2/BBB)

4. State the reason for the proposed amendment? (You may do this through an attachment.)

After adoption of a guardrail for VM-22 that was intended to be a compromise between the existing VM-20 and VM-21 guardrails and the Academy proposed guardrail of 5% Treasury, 15% PBR credit rating 3 (AA), 40% PBR credit rating 6 (A), and 40% PBR credit rating 9 (BBB), LATF planned to consider updating the guardrails for VM-20 and VM-21 to be consistent with the VM-22 guardrail. LATF members noted that they would not want to consider such a change without first reviewing impact testing. ACLI agreed to provide this impact testing. Since then, additional review has made clear that the compromise guardrail will not always give the intended compromise effect. As a result, I propose that LATF instead consider adopting the Academy guardrail for all of VM-20, VM-21, and VM-22. To address prior regulator concerns, I recommend that LATF not consider adoption of this proposal without reviewing impact testing of the updated proposal provided by ACLI. So, I am requesting the ACLI update the agreed-upon testing to now reflect the Academy guardrail for VM-20, VM-21, and VM-22. The initial exposure should be set to allow sufficient time for this testing to be completed.

\* This form is not intended for minor corrections, such as formatting, grammar, cross-references or spelling. Those types of changes do not require action by the entire group and may be submitted via letter or email to the NAIC staff support person for the NAIC group where the document originated.

NAIC Staff Comments:

| Dates: Received | Reviewed by Staff | Distributed | Considered |
|-----------------|-------------------|-------------|------------|
| 11/13/25        | JR                |             |            |
| Notes:2025-16   |                   |             |            |

## Agenda Item 9

Discuss In-Force Application of VM-22, Principle-Based  
Reserves for Non-Variable Annuities

## VM-22 Discussion Topics at NAIC Fall National Meeting

1. Which Approach should be chosen for optional vs. mandatory (see VM-22 Inforce Application - Menu of Options)?
  - a. Provide preferred options and any other suitable alternatives
  - b. Feel free to provide any additional approaches not currently on the list
2. How far back should VM-22 apply to issue years: 1/1/2017 (VM Operative Date), All Years, or Company Option?
3. When should the VM-22 Inforce become effective: as soon as possible following adoption or a predetermined future date (i.e., 1/1/2030)? Should there be a three-year implementation period or phase-in period?
4. Are there any concerns with regulatory resources for PBR reviews if VM-22 applies to inforce business?

## VM-22 Inforce Application - Menu of Approaches

| Approach | Description                                        | Mandatory vs. Optional | Criteria for Continuing with CARVM                                                                           | Granularity of Exemption/Optionality |
|----------|----------------------------------------------------|------------------------|--------------------------------------------------------------------------------------------------------------|--------------------------------------|
| A        | Mandatory Application                              | Mandatory              | None other than VM-22 Exclusion Testing                                                                      | N/A                                  |
| B        | Mandatory Application with Exemption               | Mandatory              | (1) Stand-Alone Cash Flow Testing;<br>and/or<br>(2) Demonstration that $PBR < CARVM$                         | Policy Form                          |
| C        | Mandatory Application with Exemption & Materiality | Mandatory              | Same as Option B, but optional for policy forms below a materiality threshold (e.g., less than 1% of block)  | Policy Form                          |
| D        | Optional Application: Consistent Across Block      | Optional               | Optional election but must be chosen to apply the same to all products and issue years within scope of VM-22 | All or Nothing                       |
| E        | Optional Application: Optional by Product          | Optional               | Optional election for each policy form, but must apply consistent to all issue years within each policy form | Policy Form                          |
| F        | Optional Application: Full Granularity             | Optional               | Optional election at the company's desired level of granularity                                              | Group of Policies                    |
| G        | No Inforce Application                             | N/A                    | N/A                                                                                                          | N/A                                  |

## Agenda Item 10

Hear an Update on SOA Research and Education



# SOCIETY OF ACTUARIES RESEARCH UPDATE TO LATF

December 8, 2025

R. Dale Hall, FSA, MAAA, CERA, CFA  
Managing Director of Research

*The material and information contained in this presentation is for general information only. It does not replace independent professional judgment and should not be used as the basis for making any business, legal or other decisions. The Society of Actuaries assumes no responsibility for the content, accuracy or completeness of the information presented.*

## Experience Studies Pro Update

| Experience Study                                    | Timing  | Participating Company Count |
|-----------------------------------------------------|---------|-----------------------------|
| 2009-2023 Individual Life Term Conversions          | 4Q 2025 | 15                          |
| 2023-2024 Fixed-Rate Deferred Surrender             | 4Q 2025 | 24                          |
| 2022-2024 Variable Annuity Contract Holder Behavior | 4Q 2025 | 17                          |

# Experience Studies

| Project Name                                                                                    | Objective                                                                                                                                                                                                                  | Link/Expected Completion Date                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Economic Scenario Generator - 2025 Update                                                       | Update the AAA Economic Scenario Generator Annually.                                                                                                                                                                       | <a href="https://www.soa.org/resources/tables-calcs-tools/research-scenario/">https://www.soa.org/resources/tables-calcs-tools/research-scenario/</a>                           |
| GRET for 2026 - Create Factors                                                                  | Develop the Generally Recognized Expense Table (GRET) for 2026                                                                                                                                                             | <a href="https://www.soa.org/resources/research-reports/2024/2025-gret-recommendation/">https://www.soa.org/resources/research-reports/2024/2025-gret-recommendation/</a>       |
| 2023-2024 Fixed Indexed Annuity Study - Report                                                  | Examine lapse and the utilization of guaranteed living withdrawal benefit options on fixed index annuity policies under a Joint SOA/LIMRA project and release Tableau visualizations with the observations from the study. | <a href="https://www.soa.org/resources/experience-studies/15-22-grp-ltd-inc/">https://www.soa.org/resources/experience-studies/15-22-grp-ltd-inc/</a>                           |
| AG-38 Mortality Improvement 2025                                                                | 2025 AG-38 Mortality Improvement Scales                                                                                                                                                                                    | <a href="https://www.soa.org/resources/research-reports/2025/mort-improvement-rates-ag38/">https://www.soa.org/resources/research-reports/2025/mort-improvement-rates-ag38/</a> |
| 2023-2024 Fixed Indexed Annuity Study - Report                                                  | Examine lapse and the utilization of guaranteed living withdrawal benefit options on fixed index annuity policies under a Joint SOA/LIMRA project and release Tableau visualizations with the observations from the study. | Database Released September 2025                                                                                                                                                |
| 2023-2024 Fixed Rate Deferred Surrender Study - Report                                          | Complete a study of fixed rate deferred annuity surrender rates.                                                                                                                                                           | December 2025                                                                                                                                                                   |
| 2022-2024 Variable Annuity Guaranteed Living Benefit Utilization Study - Report                 | Examine the utilization of guaranteed living benefit options on variable annuity policies under a Joint SOA/LIMRA project.                                                                                                 | December 2025                                                                                                                                                                   |
| 2009-2023 Term Conversion Incidence and Post-Conversion Mortality and Lapse Experience - Report | Conduct a mortality and lapse experience study on the converted life insurance policies.                                                                                                                                   | December 2025                                                                                                                                                                   |
| ILEC SI AUW Underwriting                                                                        | Understanding SI and accelerated underwriting in life, survey practices, and analyze data as it is available                                                                                                               | March 2026                                                                                                                                                                      |
| 2018-2024 Individual Life Mortality Study                                                       | IL mortality study based on VM51 and including additional data on cause of death and accelerated benefits                                                                                                                  | October 2026                                                                                                                                                                    |

# Practice Research

| Project Name                                                                               | Objective                                                                                                                                                                                      | Link/Expected Completion Date                                                                                                                                                               |
|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ALM Practices                                                                              | Conducts a survey of current ALM practices focused on various life insurance company products with attention paid to issues such as general account vs. separate account product distinctions. | <a href="https://www.soa.org/resources/research-reports/2025/alm-practitioner-survey-questions/">https://www.soa.org/resources/research-reports/2025/alm-practitioner-survey-questions/</a> |
| U.S. Drug Abuse Epidemic: Past Present and Future                                          | Create a resource that examines the evolution of the U.S. drug epidemic and outlook of the impact on future mortality.                                                                         | <a href="https://www.soa.org/resources/research-reports/2025/drug-overdose-trends-mortality/">https://www.soa.org/resources/research-reports/2025/drug-overdose-trends-mortality/</a>       |
| Long term impacts of exposure to the COVID-19 Pandemic                                     | Examines long term impacts of exposure to COVID-19 pandemic by cohorts                                                                                                                         | <a href="https://www.soa.org/resources/research-reports/2025/covid-cohort-mortality-impact/">https://www.soa.org/resources/research-reports/2025/covid-cohort-mortality-impact/</a>         |
| Review of Offshore Life and Annuity Jurisdictions Reinsurance Landscapes                   | Examine the offshore reinsurance landscapes                                                                                                                                                    | 11/25/2025                                                                                                                                                                                  |
| Fairness Metrics for Life Insurance                                                        | Identify and discuss a variety of quantitative metrics that could be used to evaluate fairness of life insurance products under different definitions of fairness.                             | 12/1/2025                                                                                                                                                                                   |
| Understanding Complex Assets                                                               | Examines the use of complex assets in the life and annuity industry compared to traditional public corporate bonds.                                                                            | 12/15/2025                                                                                                                                                                                  |
| Primer on Investment-Related Regulatory Approaches for Banking versus Insurance Industries | Produce a primer that compares regulatory approaches for actuarially related investment aspects of the banking and insurance industries in North America.                                      | 12/15/2025                                                                                                                                                                                  |
| Criminal Histories and Mortality                                                           | Examines the link between individuals with a criminal history and mortality                                                                                                                    | 1Q 2026                                                                                                                                                                                     |
| LTC Pricing Project Refresh                                                                | This is an update to the original study published in November 2016.                                                                                                                            | 3Q 2026                                                                                                                                                                                     |

## Agenda Item 11

Dear an Update from the American  
Academy of Actuaries (Academy) Council on  
Professionalism and Education  
(No Materials)

## Agenda Item 12

Hear an Update from the Academy Life  
Practice Council

# Life Practice Council Update

Life Actuarial (A) Task Force (LATF)  
December 8, 2025

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## About the Academy

2



### **Mission:**

To serve the public and the U.S. actuarial profession



### **Community:**

Serving over 20K MAAs & public stakeholders for 60 years



### **Standards:**

Setting qualification, practice, and professionalism standards



### **Impact:**

Delivering over 300 insight-driven publications & resources annually

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## Recent LPC—NAIC Engagement

3

### **Life Risk-Based Capital (E) Working Group**

- Assisting group with developing recommendations for revisions to C-3 framework
- [Update](#) on C-3 framework recommendations and future field test/model office analysis

### **Variable Annuities Capital and Reserve (E/A) Subgroup**

- [Comments](#) on C-3 Instructions Updates from Generator of Economic Scenarios

### **Risk-Based Capital Investment Risk and Evaluation (E) Working Group**

- Assisting group with developing recommendations for revisions to C-1 framework
- [Update](#) on CLO C-1 factor modeling for the Structured Securities Risk-Based Capital (RBC) Project

### **Risk-Based Capital Model Governance (EX) Task Force**

- Joint [comment letter](#) in response to revised preliminary principles exposed by the task force

## Recent and Upcoming LPC Activity

4

### Webinars/Events:

- [Actuaries and Investment Management: Let's Talk!](#) – Nov. 13
- [PBR: VM-31 as Seen by Regulators](#) – Dec. 12

### Publications

- [Governance Checklist, Related to Testing Life Insurance Underwriting for Unfairly Discriminatory Practices](#)
- [Excess Interest Reserves as Defined Under Internal Revenue Code §811\(d\)](#)
- [Life Perspectives, Fall 2025](#)

#### Governance Checklist

RELATED TO  
Testing Life Insurance Underwriting  
for Unfairly Discriminatory Practices

American Academy of Actuaries  
Life Underwriting and Risk Classification Subcommittee



AMERICAN ACADEMY  
of ACTUARIES

Issue Brief

Excess Interest Reserves as  
Defined Under Internal  
Revenue Code §811(d)

NOVEMBER 2025

**Key Points**

Excess interest reserves for tax purposes are likely to increase for assets in a rapidly increasing interest rate environment.

- Tax laws excess interest differs from excess interest in actuarial valuation.
- As illustrative examples of the computation of tax excess interest is included with the paper.

**Notes and Disclaimers**

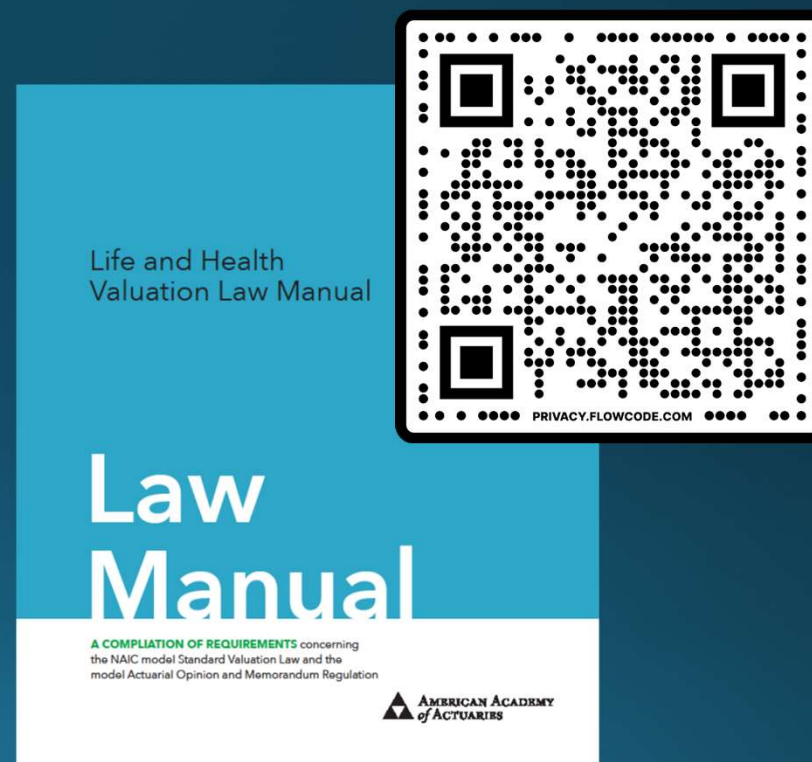
The American Academy of Actuaries (the Academy) has assembled this information as a general reference tool to assist actuaries who wish to explore the tax concept of excess interest reserves. This paper is not intended to be a substitute for the practitioner's thorough review of the federal and state laws, rules, or regulations applicable to his or her actuarial services. In addition, this document does not constitute tax advice, and any tax information contained in this document including any attachments, enclosures, or other accompanying materials is not intended or written to be used, and it cannot be used, by any taxpayer for the purpose of avoiding penalties.

Any party seeking tax advice should consult with a tax advisor/consultant.

# Life and Health Valuation Law Manual

## What's Inside?

- Current topics section outlining key valuation developments and specific state guidance;
- Current NAIC model laws and regulations that have an effect on reserve calculations;
- A discussion of generally distributed interpretations; and
- Current actuarial guidelines from the NAIC *Financial Examiners Handbook*.



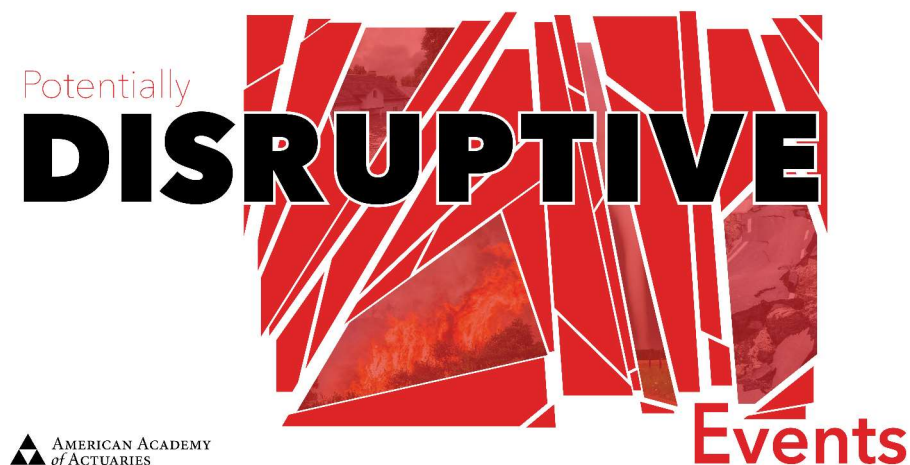
[actuary.org/lifehealth-manual](https://actuary.org/lifehealth-manual)

## Seeking Your Input!

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The Academy is seeking input on potentially disruptive events:

- significant developments (e.g., emergencies, disasters, cure for chronic disease);
- not covered by routine measures;
- can be caused by natural, man-made, or artificial circumstances;
- cause current actuarial models to no longer be effective.



[actuary.org/potentiallydisruptive](https://actuary.org/potentiallydisruptive)

## Upcoming Events

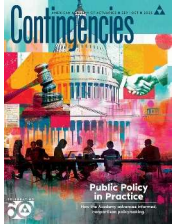
- **New Policy Summit & Annual Hill Visits, D.C.** March 8-10, 2026
- **Broadening the Focus Health Symposium, D.C.,** April 2026
- **Life Investment Summit, New York,** May 10-12, 2026
- **PBR Seminar,** August 2026
- **Retirement Symposium, D.C.,** September 2026
- **Casualty Loss Reserve Seminar (CLRS) with CAS,** September 14-16, 2026
- **Life and Health Qualifications Seminar, Arlington,** November 2026
- **Seminar on Effective P/C Loss Reserve Opinions, Nashville,** December 2026

## Other Academy Resources

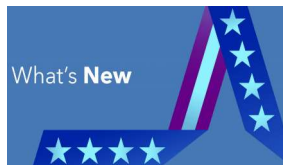
8

Follow the Academy on [LinkedIn](#)

### Access the Following Resources:



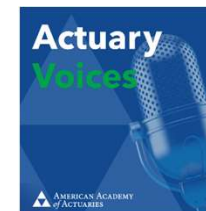
[Contingencies  
Magazine](#)



[Policy Forum](#)



[Actuarially  
Sound Blog](#)



[Actuary Voices  
Podcast](#)



[Academy  
Insights](#)

## Follow the Academy



**American Academy of Actuaries**



Don't Forget!



## Recent and Upcoming Academy Activity

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### Webinars/Events

- [Medicare: Where Are We Now? And Where Are We Headed?](#) – Sept. 9
- [Identifying and Managing Bias in AI](#) – Dec. 5
- [2025 Tales from the Dark Side](#) – Dec. 19

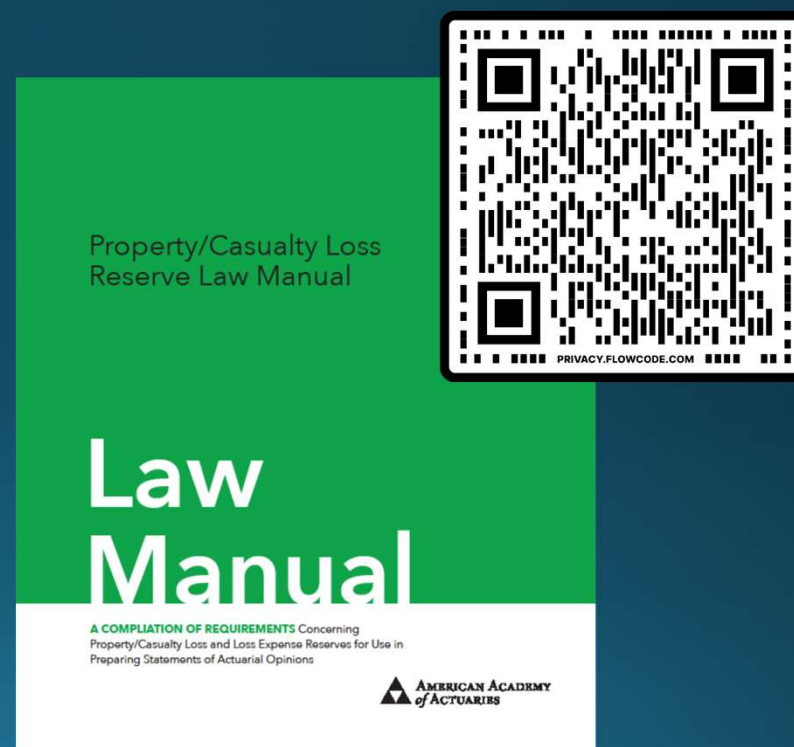
### Publications

- [Health Practice Council Resource Guide](#) focused on the market dynamics for those under 65 (commercial, Medicaid, and employer)
- [Climate Data: Actuarial Perspectives on Quality, Challenges, and Effective Risk Quantification](#)
- [Influential Features in the Workers' Compensation System—What You May Not Know](#)
- [Measuring Statistical Bias in Data Using Entropy](#)

# Property/Casualty Loss Reserve Law Manual

## What's Inside?

- SAO requirements and the laws and regulations establishing those requirements;
- Annual statement instructions for the SAO for property/casualty, title loss, and loss expense reserves; and
- Other pertinent annual statement instructions.



[actuary.org/PC-manual](https://actuary.org/PC-manual)

## Questions?

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For more information, please contact

**Amanda Barry-Moilanen**

**Policy Project Manager, Life**

**[barrymoilanen@actuary.org](mailto:barrymoilanen@actuary.org)**

### Agenda Item 13

Consider Exposure of APF 2025-17 VM-20

Stochastic Reserve Aggregation Benefit

## Life Actuarial (A) Task Force/ Health Actuarial (B) Task Force Amendment Proposal Form\*

1. Identify yourself, your affiliation and a very brief description (title) of the issue.  
  
Rachel Hemphill, TDI, Update VM-20 stochastic reserve calculation to reflect aggregation.
2. Identify the document, including the date if the document is “released for comment,” and the location in the document where the amendment is proposed:  
  
VM-20 Section 5.G  
  
Valuation Manual, January 1, 2026 Edition
3. Show what changes are needed by providing a red-line version of the original verbiage with deletions and identify the verbiage to be deleted, inserted or changed by providing a red-line (turn on “track changes” in Word®) version of the verbiage. (You may do this through an attachment.)

### VM-20 Section 5.G

The SR equals the amount determined in Section 5.F. If the company includes policies from two or more VM-20 reserving ~~categories~~ in a subgroup for aggregation purposes as described in Section 5.A, the company shall calculate the SR for policies from each VM-20 reserving category on a stand-alone basis by following the process of A through F above. Then, the final SR for the group of policies from a given VM-20 reserving category is determined by:

$$I_A = I_S \cdot (T_A / T_S), \text{ if } T_S \neq 0$$

$$I_A = 0, \text{ if } T_S = 0$$

Where:

$I_A$  = the SR for the policies from an individual VM-20 reserving category reflecting aggregation.

$I_S$  = the SR for the policies from an individual VM-20 reserving category on a stand-alone basis.

$T_A$  = the SR for the group of policies in aggregate.

$T_S$  = the sum of  $I_S$  for the group of policies for the Term, ULSG, and All Other reserving categories.

4. State the reason for the proposed amendment? (You may do this through an attachment.)

Allow reflection of the aggregation benefit in the VM-20 stochastic reserve.

\* This form is not intended for minor corrections, such as formatting, grammar, cross-references or spelling. Those types of changes do not require action by the entire group and may be submitted via letter or email to the NAIC staff support person for the NAIC group where the document originated.

NAIC Staff Comments:

| Dates: Received | Reviewed by Staff | Distributed | Considered |
|-----------------|-------------------|-------------|------------|
| 11/14/25        | JR                |             |            |
| Notes: 2025-17  |                   |             |            |

Deleted: category

## Agenda Item 14

Receive an Update from the Insurance Compact  
(No Materials)

## Agenda Item 15

Discuss Any Other Matters Brought Before  
the Task Force  
(No Materials)