

**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.

Brian Bayerle, ACLI -- Modify AG-42 to give guidance on application of preferred structure tables for the 2017 CSO.

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:

Actuarial Guideline XLII

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 attached pages

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

Actuarial Guideline 42 was developed to provide guidance to the valuation actuary in the selection and documentation of a preferred structure table under the 2001 CSO. The same guidance is generally applicable for the 2017 CSO but was not included in the valuation manual when that was modified to authorize the 2017 CSO. This change is a stop-gap measure to provide guidance for YE 2017 and 2018, while more comprehensive changes are drafted to the valuation manual to provide future guidance.

\* 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
<b>Notes:</b>			

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## ACTUARIAL GUIDELINE XLII

### THE APPLICATION OF THE MODEL REGULATION PERMITTING THE RECOGNITION OF PREFERRED MORTALITY TABLES FOR USE IN DETERMINING MINIMUM RESERVE LIABILITIES

#### I. Purpose

The purpose of this Guideline is to provide rules and guidance in the selection of the proper set of mortality rates when a company chooses to use either the 2001 CSO Preferred Class Structure Mortality Table or the 2017 CSO Preferred Class Structure Mortality Table as authorized under a state's requirements.

#### II. Effective Date and Scope

The 2001 CSO Preferred Class Structure Mortality Table is available for valuation purposes for individual life policy forms (and certain group life products sold to individuals by certificate with premium rates guaranteed from issue for at least two years) for issues as provided by the state's requirements which may be based on the NAIC Model Regulation Permitting The Recognition of Preferred Mortality Tables for use in Determining Minimum Reserve Liabilities (Model #815) and which may use the NAIC Valuation Manual.

The 2017 CSO Preferred Class Structure Mortality Table is available for valuation purposes for individual life policy forms (and certain group life products sold to individuals by certificate with premium rates guaranteed from issue for at least two years), for issues as provided by a state's requirements which may use the NAIC Valuation Manual.

The "Applicable CSO Preferred Class Structure Mortality Table" is either the 2001 CSO Preferred Class Structure Mortality Table or the 2017 CSO Preferred Class Structure Mortality Table as applicable in context.

#### III. Definitions

- A. "Anticipated mortality" means the appointed actuary's assumption about the mortality to be experienced in the future on a group of insured lives.
- B. "Appointed actuary" means any individual who is appointed or retained in accordance with the requirements set forth in the Actuarial Opinion and Memorandum Regulation.
- C. "Basic reserves" means reserves calculated in accordance with Section 5 of the Standard Valuation Law.
- D. "Class" means a group of policies under one or more plans of insurance that has similar anticipated mortality, as grouped together by the insurer.
- E. "Credibility" means a measure of the predictive value in a given application that the appointed actuary attaches to a particular body of data (predictive is used here in the statistical sense and not in the sense of predicting the future).
- F. "Deficiency reserves" means the excess over basic reserves, if any, of minimum reserves established in accordance with Section 8 of the Standard Valuation Law.
- G. "Full credibility" means the level at which a particular body of data is assigned full predictive value based on a selected confidence interval.
- H. "Preferred class certification" means the certification required by Section 5 of the Model.
- I. "Underwriting-based justification" means the incorporation of underwriting criteria for use in setting the anticipated mortality assumption.
- J. "Underwriting class" means the insurer's designation of insureds into a particular premium rate structure, e.g. super preferred, preferred, or standard.

#### **IV. Selection of Table within the Applicable CSO Preferred Class Structure Mortality Table**

VM-20, Section 3C of the Valuation Manual contains the requirements governing the set of mortality rates to be used for the purpose of calculating reserves based on the Applicable CSO Preferred Class Structure Mortality Table. The election of the Applicable CSO Preferred Class Structure Mortality Table is on a policy form and calendar year of issue basis, although once a calendar year cohort of policy forms is placed on the Applicable CSO Preferred Class Mortality Structure Table basis, it may not subsequently revert back to the standard applicable CSO basis without the approval of the commissioner. This would be considered a basis change for annual statement reporting purposes. For those calendar years of issue in which a company opts to use the Applicable CSO Preferred Class Structure Mortality Table, it must use the entire Applicable CSO Preferred Class Structure Mortality Table for the chosen policy forms, i.e. a company may not use the preferred classes from the Applicable CSO Preferred Class Structure Mortality Table and use the Applicable Standard CSO Mortality Table for the non-preferred class(es). Additionally, if the company sells two similar policy forms in the same market the appointed actuary must use the same version of the table for both forms and may not use the Applicable CSO Preferred Class Structure Mortality Table on one and the applicable Standard CSO Mortality Table on the other. A characteristic of this two-form scenario is that preferred lives would be attracted to one form and non-preferred lives would be attracted to the other.

The Model contains a requirement that at the time of election and annually thereafter, except for business valued under the applicable Residual Standard Nonsmoker Table or the applicable Residual Standard Smoker Table, the appointed actuary shall certify that the following tests of sufficiency were passed:

- A. For each class, the present value of death benefits over the next ten years after the valuation date using the anticipated mortality experience without recognition of mortality improvement beyond the valuation date for each class is less than the present value of death benefits using the valuation basic table corresponding to the valuation table being used for that class.
- B. For each class, the present value of death benefits over the future life of the contracts using anticipated mortality experience without recognition of mortality improvement beyond the valuation date for each class is less than the present value of death benefits using the valuation basic table corresponding to the valuation table being used for that class.

In the event that the class does not contain any policies with expiry dates ten or more years into the future, the sufficiency test based on the present value over the future life of the contracts shall be the only test required.

In order to choose the proper set of mortality rates within the Applicable CSO Preferred Class Structure Mortality Table and to develop the preferred class certification, the following considerations shall be made:

##### **C. Creation of Classes**

The appointed actuary should consider the composition and characteristics of the policies issued under a plan of insurance in determining the appropriate classes that will be applicable under that plan. The policies that comprise classes generally have similar underwriting or mortality experience characteristics. When classes are similar across various plans of insurance, these classes may be combined into a single aggregate class. The appointed actuary shall not combine classes that are expected to have dissimilar anticipated mortality as a means to produce reserves that are materially lower than those developed if the classes were not combined.

The appointed actuary should consider the presence of reinsurance in creating classes. Anticipated mortality should be assessed, and classes should be created on a gross basis. To the extent that anticipated mortality on reinsurance ceded or assumed is materially different from that on direct business, the appointed actuary should consider creating separate classes to properly reflect the anticipated mortality.

If, due to differences in actual experience by policy form and underwriting class, groupings of classes are changed from those used in the prior actuarial certifications, the change and the effect of the change shall be disclosed to the commissioner in the actuarial certification.

Separate classes may be established for a single policy form if there are significant anticipated mortality differences for different cohorts of insured lives, such as age groups or policy sizes. For instance, if a company has different underwriting thresholds for policies with face amounts of \$1 million or more, it may be appropriate to have a class for policies with face amounts of less than \$1 million and a separate class for policies of \$1 million or more.

D. Deriving Anticipated Mortality

- i. If relevant company experience for a particular class is available and has full credibility, the appointed actuary shall use that experience as the basis for deriving anticipated mortality.
- ii. In situations where relevant company experience for a particular class is available but does not have full credibility, the appointed actuary shall derive the anticipated mortality by blending the relevant company experience for the class with actual relevant, credible experience and past trends in experience of other similar types of business, either in the same company, in other companies (including reinsurance companies), or from other sources, generally in that order of preference provided that the appointed actuary supplies underwriting-based justification. The blending process shall be based on a credibility methodology that is recognized by the actuarial profession as acceptable practice as provided for in published transactions and scientific journals.
- iii. In situations where relevant company experience for a particular class is not available (e.g. a new product), the appointed actuary may derive the anticipated mortality using actual relevant credible experience and past trends in experience of other similar types of business either in the same company, in other companies (including reinsurance companies), or from other sources, generally in that order of preference, provided that the appointed actuary supplies underwriting-based justification.
- iv. Underwriting-based justification shall include an analysis of the relationship between the underwriting-based criteria for the class where no experience data is available or does not have full credibility and the underwriting-based criteria that underlie the actual relevant credible experience data.
- v. If no sufficient underwriting-based or experienced-based justification is made to derive anticipated mortality for a class, the company shall not use the Applicable CSO Preferred Class Structure Mortality Table for valuation.

E. Periodic Assessment of Anticipated Mortality

The appointed actuary shall annually review relevant emerging experience and underwriting methods for the purpose of assessing the appropriateness of anticipated mortality for each class and, in aggregate, for all classes combined. If the results of statistical or other testing indicate that previously anticipated mortality for a given class is inappropriate, then the appointed actuary shall set a new anticipated mortality assumption for the class. After analyzing the appropriateness of the anticipated mortality for each class, the appointed actuary shall analyze the appropriateness of the anticipated mortality assumptions at the aggregate level. If the analysis at the aggregate level indicates that aggregate anticipated mortality is inadequate, then the appointed actuary shall adjust the anticipated mortality assumption for one or more of the classes until the appointed actuary is satisfied that the anticipated mortality assumptions are adequate at the aggregate level.

F. Tests of Sufficiency

After the anticipated mortality is established, each class must be tested for sufficiency. If a class fails any required sufficiency test, the class must be re-valued using a different set of mortality rates from the Applicable CSO Preferred Class Structure Mortality Table. A company must choose a set of mortality rates under which all required tests of sufficiency can be passed.

E. Calculation of Present Value

When a class is tested for sufficiency, the calculation of the present value of death benefits shall be based on a projection of death benefits, without the effect of lapse, at the valuation interest rate used to determine basic reserves for the class. If the class contains policies with several valuation interest rates, the lowest valuation interest rate used to determine the base reserves for any policy within the class shall be used for that class.

G. Right of Commissioner to Change the Table Used by the Company

The commissioner may require a company to change the mortality table if it is determined by the commissioner that inadequate justification of anticipated mortality is provided by the company.

## V. Communications and Disclosures

The appointed actuary shall provide to the commissioner an annual certification that, as of the valuation date, the anticipated mortality experience of each Class of business (other than Residual Standard Class) meets the criteria of 4(a) and 4(b) above. Additionally, the appointed actuary shall prepare an annual report in support of the certification. The report shall include the following items:

- A. The certification that the report supports;
- B. The specified plans of insurance for which the company has elected to use the Preferred Class Structure Table, briefly describing each plan and the amount of in force business (count, face amount, and reserves) on each plan on the valuation date;
- C. Compliance with the certification criteria;
- D. Description of sources of information used as a basis for determining anticipated mortality;
- E. Analysis performed to evaluate the credibility of relevant historical company experience when establishing anticipated mortality for each Class;
- F. Analysis performed to evaluate the relationship between the underwriting-based criteria and the anticipated mortality established in each class.
- G. Statistical or other quantitative analyses performed in assessing the continued appropriateness of the anticipated mortality assumption for each Class and for all Classes in aggregate, and a summary of changes made as a result of the analyses;
- H. Anticipated Mortality, without recognition of mortality improvement beyond the date of valuation, for each Class and for all Classes in aggregate;
- I. For each Class, the ratio of Anticipated Mortality to the mortality rates in the Valuation Basic Table corresponding to the set of valuation mortality rates being used for that Class;
- J. Any changes made in the approach or parameters applied to the statistical analyses or tests performed compared to those performed at the last annual valuation; and,
- K. Disclosure of the financial impact of any change in the chosen set of valuation mortality rates

**Drafting Note:** Annual actuarial opinions, certifications and reports for the use of “X” factors have been required since the implementation of the NAIC’s Valuation of Life Insurance Model Regulation. The work and analysis to be performed for Preferred Class Certification is very similar to the requirements for the use of the “X” factors and the appointed actuary may combine the selection and analysis of “X” factors and the selection and analysis of Applicable CSO Preferred Class Structure Mortality Table into one actuarial opinion, certification and annual experience report, if the appointed actuary wishes to do so.

## VI. Other Items of Note

- A. If a class of business is assigned to a different set of mortality rates within the Applicable CSO Preferred Class Structure Mortality Table (either a higher or lower level of mortality rates) from that used in the prior valuation, the change is not considered a basis change, and the reserve change must be accounted for in the calculation of gain from operations.
- B. Multiple underwriting classes on a policy form can be mapped into the same set of mortality rates within the Applicable CSO Preferred Class Structure Mortality Table, if, in aggregate, the underwriting classes can be shown to have anticipated mortality no greater than the valuation basic table underlying the set of mortality rates selected.
- C. If a company chooses to use the Applicable CSO Preferred Class Structure Mortality Table for basic reserves, the same table must be the basis for the calculation of deficiency reserves, if applicable.