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.

   American Academy of Actuaries' Life Reserves Work Group (LRWG)
   Aggregation of mortality segments for the purpose of determining credibility.

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:

   Exposure draft APF 2018-17 Aggregation of Mortality Segments, which is a proposal to change VM-20 Sections 9.C.4.b and 9.C.6.b.ii from the Valuation Manual (January 1, 2018 edition), with NAIC Adoptions through August 8, 2017, and VM-31 Sections 3.C.3.b and 3.C.3.m from the same edition of the Valuation Manual, as revised by APF 2017-94.

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.):

   Please see below.

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

   1. On the Life Actuarial Task Force (LATF) call of May 24, 2018, the question was raised as to whether the conditions for using aggregate mortality for purposes of determining credibility set forth in Section 9.C.4.b should apply only to "top-down" processes in which an aggregate is first formed and then broken down into mortality subgroups, rather than to the aggregation of previously determined mortality segments. The LRWG agrees the two approaches will produce similar results, provided (1) that the mortality segments were subject to the same or similar underwriting and (2) that the mortality segment rates are informed by the aggregate experience, i.e., that the mortality segment rates reflect, or potentially could reflect, the aggregate experience, consistent with Section 9.C.2.d. Thus, the LRWG recommends that romanette (i) be eliminated, romanette (ii) be renumbered (i) and a new romanette (ii) reflecting requirement (2) above be added.

   2. Among the comments discussed on the LATF call was the observation that requiring similar distribution systems and target markets was overly restrictive and could inhibit the development of new types of coverage. It was asserted that having similar underwriting processes should be sufficient for determining which policies may be aggregated for credibility determination. The LRWG believes that the original romanette (iii) was too restrictive, but notes that distribution systems and target markets can have an impact on the risk selection process and, to the extent they do, they should be considered part of the underwriting process. To reflect this perspective, the LRWG recommends eliminating the original romanette (iii) and the second to last paragraph of this subsection and clarifying in the first sentence of the Guidance Note that "underwriting processes" include such impact on risk selection.

   3. The application of Section 9.C.4.b to reinsurers was not clear in the exposure draft. To rectify this, the LRWG recommends the addition of a paragraph immediately following the new romanette (ii) in order to make clear that "underwriting processes" for reinsurers do not require the reinsurer to "look through" the treaty to the ceding company's underwriting of the underlying insureds, but rather refer to the processes by which reinsurers determine the expected mortality that underlies a reinsurance offer to a client company.

   4. Several comments on the exposure draft of the paragraph that now starts "An underwriting process that is expected to produce similar mortality…" held that the original wording of this paragraph was too restrictive. On the other hand, other comments emphasized the need to provide limits and other

measures to reduce the potential for abuse. The appendix provides suggested wording that would correct this paragraph by (1) generalizing the application of this paragraph to "underwriting processes that are expected to produce similar mortality" rather than "underwriting processes that utilize new methods" and (2) allowing for changes that impact expected mortality, if they are the result of one or more *specific, identifiable modifications* of an established underwriting process and are properly justified by a documented internal or published external studies. A second paragraph was added that provides that,(a) if the changes to the established process are not incremental (e.g., changes due to the introduction of accelerated underwriting), a retrospective demonstration must be carried out and repeated each time the company reviews its mortality (usually every three years), and (b) if this process increases uncertainty, additional margins should be held. Additional editorial changes were made for clarity. Suggested examples of incremental and non-incremental changes are given in the Guidance Note.

5. The last paragraph of the subsection in the exposure draft contained reporting requirements that would more naturally be set forth in VM-31. To rectify this, this APF suggests that the paragraph be eliminated and replaced by changes in VM-31 Sections 3.C.3.b and 3.C.3.m, suggested wording for which is provided below.

6. Comments were received on the exposure draft that a company should not be required to provide pricing informaition to support its position that two underwriting processes are similar and that consideration should be given to broadening of the list of sources of support to include other company functions, such as risk assessment or financial reporting. This APF provides suggested wording to reflect these comments.

7. The LRWG suggests that consideration be given to changing Section 9.C.6.b.ii so that the same considerations that apply to the determination of credibility apply to the determination of the sufficient data period.

* 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: Amendment Proposal 2018-17 revised 6~~5~~_27~~24~~_18			

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VM-20 Section 9.C.4~~.b.~~:

b. Credibility may be determined at either the mortality segment level or at a more aggregate level. ~~if the mortality for the sub-classes (mortality segments) was determined using an aggregate level of mortality experience.~~

Experience for different mortality segments may be aggregated if the following ~~three~~two conditions are met: ~~The company based its mortality on the aggregate experience and then used a methodology to subdivide the aggregate class into various mortality segments and a description of the methodology for sub-dividing is provided in the PBR Actuarial Report;~~

i. The mortality segments were subject to the same or similar underwriting processes; and
ii. The aggregate mortality experience was used in the process of establishing the company experience mortality rates for the mortality segments~~ were sold by similar distribution systems and~~, pursuant to ~~similar market segments~~Section 9.C.2.d.

~~Underwriting processes~~For assumed policies, "underwriting processes" means the processes by which the assuming company determines which risks to accept.

An underwriting process that ~~utilize new methods, but which are~~is expected to produce similar mortality to a previously established underwriting process, or for which the expected mortality differs from that of a previously established underwriting process only as the result of one or more specific, identifiable modifications to the established process for which the expected change to mortality may be reasonably estimated, may be treated as similar to the previously established underwriting ~~processes~~process if these expectations regarding mortality are supported in the PBR Actuarial Report by published medical, clinical, actuarial, or industry studies. Alternatively, an underwriting ~~processes that utilize new methods, but~~process which ~~have~~has been ~~demonstrated~~shown to produce similar mortality to that of an established process or for which the expected change to mortality due to one or more specific, identifiable modifications to a previously established process has been estimated based on a retrospective demonstration using statistical analyses, predictive ~~analytics~~model back-testing, or other modeling methods, may be treated as similar to the previously established underwriting processes if these demonstrations are ~~provided~~ clearly outlined and explained in the PBR Actuarial Report.

~~If the distribution system or target market for a~~ Except if the difference between the modified underwriting process and the established underwriting practice is incremental, a retrospective demonstration shall be carried out and repeated each time the company performs a review of company experience data pursuant to Section 9.C.2.e. To the extent that the judgment of similarity of mortality ~~segment differs from that of the other~~or expected change to mortality ~~segments within the aggregate grouping, the mortality experience cannot be aggregated for credibility purposes unless the company expects and can demonstrate that the mortality experience of the segments is similar to that of the other mortality segments, and support is provided in the PBR Actuarial Report.If the company determines mortality and credibility at an aggregate level, the mortality experience of each of the mortality segments within the aggregate shall be studied separately and the emerging results for each of these segments shall~~introduces additional uncertainty, the margin should be ~~presented in the PBR Actuarial Report.~~increased pursuant to Section 9.C.5.d.

Guidance Note: The intent of this section is to allow aggregation of different types of life insurance products (such as term, whole life, universal life (UL), etc.) and different underwriting and risk classes within these products for purposes of determining credibility when the underlying underwriting processes, including any impact on risk selection attributable to differences in distribution systems~~, and~~ or target markets, are similar. The intent is not to allow broad aggregation of disparate underwriting methods such as ~~guaranteed issue or~~ simplified issue with fully underwritten products.

Company experience collected on a mortality segment basis may be aggregated provided that the segments were subject to the same or similar underwriting and the mortality segment rates reflect, or potentially could reflect, the aggregate mortality experience.

Examples of incremental changes in underwriting processes include the introduction of a new risk characteristic, a change in the thresholds associated with a risk characteristic, etc. The adoption of a new method of risk assessment that involves new or significantly altered processes, such as accelerated underwriting, is not incremental and is thus subject to the requirement for retrospective demonstrations in conjunction with the company's review of company experience data if it is to be treated as similar to the previously established underwriting process.

With regard to ~~new methods~~changes in underwriting processes, if there is one group of policies using a ~~new method~~newly modified underwriting process and one group of policies using a previously established underwriting process, showing that the mortality assumptions used for other company functions, such as pricing, risk assessment and the preparation of financial statements, for the two groups of policies are consistent ~~would~~could be one part of supporting the company's position that the two underwriting processes ~~are~~should be treated as equivalent for purposes of aggregation.

~~c. A single level of credibility shall be determined over the entire exposure period, rather than at each duration within the exposure period. This overall level of credibility will be used to:~~

~~i. Determine the prescribed margin for company experience mortality rates.~~

~~ii. Determine the grading period (based on the credibility percentage shown in column (1) in the applicable table in Section 9.C.6.b.iii) for grading company experience mortality rates into the applicable industry basic table.~~

VM-20 Section 9.C.6.b:

ii. In determining the sufficient data period the company shall first identify the last policy duration at which sufficient company experience data exists (using all the sources defined in Section 9.C.2.b). The sufficient data period then ends at the last policy duration that has 50 or more claims (i.e., no duration beyond this point has 50 claims or more) subject to the limits in Column 2 of the applicable table in Section 9.C.7.b.iii.b. The same aggregation of mortality segments applied for the determination of credibility should be applied to the aggregation of mortality segments for the determination of the sufficient data period.

VM-31 Section 3.C.3

Mortality – The following information regarding the mortality assumptions used by the company in performing a principle-based valuation:

…

b. Company Experience – If company experience is used, a description and summary of the company experience mortality rates for each mortality segment, including a summary of the company experience mortality rates and emerging experience for any aggregate class that is to be sub-divided into mortality segments and for each of the resulting mortality segments.

…

m. Actual to Expected Mortality Analysis – At least once every three years, the results of an actual to expected (without margins) analysis. For mortality segments that result from the sub-division of an aggregate class, the actual to expected analysis shall be performed annually for each resulting mortality segment separately.