AMERICAN ACADEMY of ACTUARIES

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November 27, 2017

To: Life Actuarial Task Force

From: Life Reserve Work Group of the American Academy of Actuaries[1]

Re: Aggregation of Mortality Segments for Determining the Level of Credibility in VM-20

Background:

1. VM-20 requires companies to determine separate prudent estimate mortality assumptions (i.e. separate "mortality segments") for group of policies that the company expects will have different mortality experience, such as male vs. female, smoker vs. non-smoker, preferred vs. standard, etc. (Section 9.C.1.a.).

2. A company issues policies through a marketing process and uses an underwriting process to assign all policies to a set of classes for which mortality rates can be determined; the amount of aggregate exposure is therefore an important factor in determining the credibility of the results of this process.

3. Credibility depends on exposure, so each mortality segment on a standalone basis has less credibility than the aggregate of all mortality segments for the business.

The issue:

Should the level of credibility of the underlying mortality experience be determined for each mortality segment on a standalone basis, or should companies be allowed to aggregate the experience of several mortality segments together to determine the level of credibility?

If the latter, to what extent can the experience of multiple mortality segments be combined? Full aggregation across all mortality segments? At some level between a standalone mortality segment approach and full aggregation?

[1] The American Academy of Actuaries is a 19,000-member professional association whose mission is to serve the public and the U.S. actuarial profession. For more than 50 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.

Why this issue is important:

The level of creditability directly impacts the size of the prescribed margin and the speed to which the company experience rates grade to the industry table. As the level of credibility decreases, the reserve will increase.

The current wording in VM-20 (Section 9.C.4.b) is unclear regarding the degree of aggregation that is permitted when determining the level of credibility. Additional clarity and guidance are needed:

> "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."

Possible guidance being discussed by the Life Reserve Work Group:

1. Experience can be aggregated if the policies were subject to similar underwriting criteria and risk classification procedures.

2. The degree of similarity of distribution systems and market segments should be considered when determining the level of aggregation.

3. Aggregation of different types of life insurance products (such term, whole life, UL, etc.) may be permitted in light of the above considerations.

4. Guaranteed Issue (GI) and Simplified Issue (SI) should not be aggregated with other business.

5. Policies underwritten with new methods that are expected to produce similar mortality (if supported by medical or clinical studies, predictive analytics, modeled demonstrations, or statistical analysis) may be aggregated with policies underwritten with previously established methods.