

**Comment #10 – 5/13/19 – 5:47 p.m.**

Thanks for the opportunity to provide comments on the Modeling ASOP. I think good progress has been made from the third to fourth draft of this ASOP. I have a few comments to add regarding the ASOP:

- **Section 2.11:** I'm in agreement with the suggestion Anthony Salis had for this section and would like to see the inclusion of "materially" in the definition for Overfitting.
- **Section 3.1.6:** I believe some clarifications to the section or an explicit definition for Margins should be included. I understand that this was debated from the 3<sup>rd</sup> draft to the 4<sup>th</sup> and that the door might be shut on making changes here. To me, without a definition, I interpret Margins and Range of Assumptions to be very close to the same thing. In the appendix, it says current use includes "adding an element of conservatism" which to me appears like using a Range of Assumptions so that different options could be presented to the intended user.
- **Section 3.6:** I'm in agreement with Anthony Salis and his comment on this section. To add on to his, based on the weaker wording, it might discourage documentation since section 4.1 seems very clear on what needs to be included and it could be seen as a burden relative to the importance of a largely inconsequential model.
- **Section 4.1.d:** This section calls for disclosing unreasonable output. I think there needs to be a little more guidance as to what level unreasonable output necessitates being reported. For example, if 4 observations out of 1000000 seem unreasonable, does each observation need to be called out or is that at the actuaries discretion? Since over 99.9% of the observations seem reasonable, does this even warrant being called out? On an individual basis, these could have significant impacts but in the aggregate I would say it does not. I would rather see this section rephrased to:

d. unreasonable output resulting from the aggregation of assumptions and parameters used as input, if material, as discussed in section 3.1.6(f);

Alternatively, a definition for unreasonable output would also address the example I have.

Thanks,  
Eugene Itskovich