Comment #38 - 9/30/13 - 4:19 p.m.

Pinnacle Actuarial Resources, Inc. is pleased to have the opportunity to provide the following comments in regards to the Exposure Draft of the proposed modeling actuarial standard of practice.

Response to the specific questions posted

1. Does the proposed standard provide sufficient guidance to actuaries working with models?

The proposed standard appears very strong in that it applies to virtually every application we work with – spreadsheets, triangles, even simple math in the context of a model. On the other hand, the standard is very weak in that it does not require us to do much other than "Consider Model Risk." In fact, we would submit the entire ASOP on Modeling could be summed up by the phrase "Consider Model Risk" when performing actuarial services.

2. Is the proposed standard sufficiently flexible to allow for new developments?

Yes, the proposed standard is flexible enough to allow for new developments.

3. The draft ASOP starts with a wide scope, but allows the actuary to use professional judgment to identify those instances (such as those involving minimal reliance by the user, or resulting in a non-material financial effect) where some guidance described in this ASOP is not appropriate or practical. Is this clear and appropriate?

This allows actuaries to use professional judgment, however since "minimal reliance by the user" and "non-material financial effect" are not defined the report may need disclosure of why this ASOP is not appropriate.

4. In those instances where some guidance described in this ASOP is not appropriate or practical and the deviations from guidance are "not material," the actuary does not need to disclose these deviations. Is this clear and appropriate?

Yes, this is clear but disclosure of not material may be appropriate.

5. Appropriate documentation simplifies later use and development of current models as well as allowing easier review by principals and other actuaries. Section 3 contains guidance with regard to documentation. Is this guidance clear and appropriate?

Yes, the guidance is clear and appropriate.

6. Does the use of bold font to identify defined terms improve the readability and clarity of the standard? If not, what suggestions do you have to improve the recognition of defined terms in the standard?

Use of bold fonts to identify defined terms improves the readability.

Other Comments

- Section 1.1: Professional services are not defined. Does this differ from actuarial services defined in ASOP 41?
- Section 2.5 (defining Input): We would suggest modifying the list of items to include a
 descriptor "including but not limited to" before the listing. Consider that a random
 number generator (not listed here) is definitely a part of many models. One could argue
 that such is a parameter, but it is in a different class than "assumptions, data or
 parameters"
- Section 2.11 (defining Model Risk): We would suggest that model risk reflects the risk of both adverse and favorable consequences to output and decisions. That is, risk should reflect both plus and minus this standard says model risk should focus only on adverse outcomes. After all, risk is simply a deviation from expected.
- Section 2.18 defines Reproducible as the identical results being realized by a model
 when run with the same inputs. If/when a random number generator is involved, the
 only time the same results are reproduced is if the random number seed is identical.
 Using a different seed will produce "virtually" the same results not "identical" results.
- Section 3.2.4.c and 3.2.4.d: The use of the word "consider" seems contrary to the ASB's
 position on disclosures. Complete disclosure of both how the model meets the
 intended and potential limitations should be disclosed.
- Section 3.4.2: The first sentence is missing an "a". The actuary should consider including in the actuarial report <u>a</u> reconciliation to a prior actuarial report.

The comments above are the collected comments of the consultants employed or affiliated with Pinnacle Actuarial Resources, Inc. If you have any questions regarding the above, please contact Laura Maxwell at lmaxwell@pinnacleactuaries.com.