## William H. Wilton

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Modeling Actuarial Standards Board 1850 M Street, NW, Third Floor Washington, DC 20036

Re: Modeling Exposure Draft

I appreciate the effort the committee has put into this modeling exposure draft, however it is not ready for adoption. There are a number of inconsistencies with other ASOPs that need resolution, the terminology in this exposure is inconsistent with how those terms are generally interpreted in the United States, and most fatal is that it tries to cover all models but acknowledges it is inappropriate for it to cover all models.

I believe the standard needs to be all inclusive, however, that also means it needs to be very generic. The standard should provide guidance, should aid the actuary in performing and documenting what they did, but should not require the actuary to disclose or justify what the actuary did not do.

Some of the specific issues identified when reviewing the draft include:

#### **Section 1**

Should **Actuarial Services** (consistent with ASOP 1), be used rather than professional services?

#### Section 2

I feel Section 2 needs to be completely reworded to utilize language practicing actuaries use and can be understood by their audiences. I feel this draft ASOP hurts the profession and puts the profession back to the back room of organizations rather than putting us closer to our principals and members of the board of directors. For example, where did the term "realization" come from? I am a life actuary and have never used it in the context anticipated by the ASOP. This term appears to be so bad that apparently the committee could not even utilize it in Section 3.1.1. Why isn't realization used rather the results throughout the ASOP? Because practicing actuaries do not use the word realization to refer to results from a model! There is nothing real about results from a model, it is just output.

Furthermore, only lawyers enjoy reading documents which cannot be understood without translating the words into alternative meanings based of how terms are defined in another part of

the document. For an ASOP to be beneficial to the profession, English as is commonly used and understood by practicing actuaries, needs to be the basis.

More specifically, I believe the following definitions need revision.

Model – This is one of the primary problems of the exposure draft. Why include what a model consists of? Why use terms of art that are inconsistent with English as understood by the public? I believe specification, implementation and realization are all inconsistent with commonly used English and are not really needed in the standard. Was the Merriam-Webster dictionary (<a href="http://www.merriam-webster.com/">http://www.merriam-webster.com/</a>) reviewed before creative expression was used to define these terms? I encourage the committee to get back to basics. What was wrong with model output as utilized in ASOP 38?

Organization – I do not believe it is common to refer to a benefit plan as an entity or an organization.

Project Objective – I think the ASOP needs to be clear that there can be more than one objective of a model. Should we state "the specific goal(s) or question(s)"?

Realization – Get rid of this word. Is it results? Scenario? Run? If scenario, definition is inconsistent with ASOP22.

Parameter – I believe use of the term parameter is more confusing than helpful. Is it data or an assumption? Does it make any difference? Let's use the basic element, it appears that parameter is just a specialized form of data or assumption and therefore its use causes confusion rather than providing clarity.

Specification – The definition is inconsistent with how it is used as a component of model. I do not believe it is even required. It is not present in Section 3 or 4.

#### Section 3

I think it is extremely confusing to state in Section 3.1 that this ASOP applies to all models and then in the third sentence to contradict the opening statement and say that the ASOP doesn't apply to some models. In reality full application of this ASOP only applies "when intended **model** users rely heavily on the results and the **model** has a material financial effect." I feel the standard has to focus on the minimum level that applies to all models. The standard can specify considerations and allow the actuary to determine they are not applicable; however the actuary should not be required to document all the items where the standard was not followed because the standard is inappropriate recognizing the Project's Objective.

I think the following statement is problematic as a standard. "The resources committed and controls the actuary applies to a **model** should relate to the degree of reliance on **model** results and the financial importance of decisions based upon these **model** results." It should be

recognized that the model is for a specific objective, and that ultimately it may be used for other objectives that it may not have been initially intended for. Therefore, the resources committed should be consistent with the project's objective, not with the degree of reliance and financial importance of decisions. The degree of reliance and financial importance should influence the objective.

In section 3.1.2, why not state the generic requirement to make a reasonable attempt to understand...? The first sentence saying full application may not be necessary only confuses when to apply the standard. The standard is that when using a modeled developed by someone else, the actuary should.....

In section 3.1.3, we should not force the actuary to defend why this standard is inappropriate. The actuary should be prepared to defend their work product. They should not have to defend the diverse thoughts and inappropriate considerations, given the project objective, contained in the exposure draft.

In Section 3.2.1, I do not feel it is necessary for "the actuary should consider items such as the **granularity** of **inputs**, the causal relationships recognized, the **model**'s ability to perform stochastic analyses or stress testing, and the **model**'s ability to identify possible volatility around expected values." Stochastic analysis and stress testing only needs to be considered if they are part of the processes performed by the model and required to meets its intended use. I feel the first sentence of this section is sufficient and the clarification in the second sentence is not needed. Often through this exposure draft, the clarifications cause confusion rather than directly supporting the standard.

In section 3.2.6, isn't ASOP 23 focused on data? Is it appropriate to include assumptions and parameters in this reference? Is determining the sources the proper focus? Isn't it about selecting data?

In Section 3.2.7a, Is credible used in the right context? Isn't credibility the process of putting confidence in the experience compared to other data available? Is it appropriate to say actual experience is not sufficiently credible? Isn't the real issue to consider if you base assumptions 100% on this experience or do you use multiple sources of data and recognize that the actual expected result may be somewhere between actual experience and the information contained in other data that may not be as relevant? I am not an expert on credibility and therefore I encourage the committee to consult an expert on credibility to make sure the references are correct.

In Section 3.2.7c, I do not feel consistency is required and should not have disclosure requirements when the assumptions are prescribed by regulators. The assumptions should be disclosed, but the actuary should not have to disclose the inconsistencies and the reasons for it. Most of this was likely communicated before the prescribed assumption was adopted. For example, if a model generally uses continuous functions but regulators prescribe discrete

functions, the actuary should not be required to "dumb down" their assumptions or document the inconsistency.

In Section 3.2.7d, the monitoring requirement seems out of place. When using a model to meet the project's objective, assumptions should be used reflecting experience. Future requirements should not be part of the current objective. The best effort is provided at the time of delivery (or realization as you would say.) I do agree that monitoring of assumptions does provide benefit to a subsequent project objective.

In Section 3.3.2, eliminate the sentence "The actuary may want to confirm that different simulations or random number generator seeds produce similar distributions of results." I think putting this detail and minutia in the standard is inappropriate. The seed is just a seed. What is important is that the scenarios utilized are a reasonable representation if more scenarios were processed.

In Section 3.6, there are situations where documentation is not permitted to be retained. Therefore, an exemption should be allowed for situations where documentation, by policy or contractual agreements, must be returned or destroyed.

In Section 4.1.3, I do not feel it should be required to disclose and discuss inconsistency in assumptions in situations where assumptions are prescribed by regulation or dictated by insurance regulators. The actuary should be able to rely on the regulators expertise that if they required it they should understand the implications of such requirement.

## As to the specific task force question:

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

I think the standard as currently exposed does more harm than good to the profession. The terminology makes this proposed standard incoherent to practicing actuaries and fails to provide guidance since despite what it says appears to only be fully applicable when intended model users rely heavily on the results and the model and has a material financial impact.

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

The standard should be fundamental and should not be impacted by new developments. From this perspective many clarifications provided in the standard decrease the flexibility and will make the standard less appropriate as time passes.

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?

I believe it is inappropriate to require the actuary to justify limiting full application of the guidance when the guidance doesn't and shouldn't apply in the first place! ASOPs should facilitate an actuary to perform actuarial services, not be an additional burden in performing those services.

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?

So, the committee recognizes that some of the guidance may not be appropriate, but still wants to include it in the standard? If the guidance is not 100% applicable it should not be in the standard. Either the item should be removed of made more generic so it may be considered but not required.

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?

No. See earlier comments.

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?

Yes, I think the bold words are required because the actuary cannot interpret the sentence accurately without referring back to the convoluted definition of the term.

I would like to thank the committee for the opportunity to comment on this exposure draft.

Sincerely,

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