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Kris DeFrain, FCAS, MAAA, CPCU
Director of Research and Actuarial Services
National Association of Insurance Commissioners

Sent via email

Re: CASTF Draft – *Regulatory Review of Predictive Models White Paper*

Dear Kris:

I appreciate this opportunity to comment on the Casualty Actuarial and Statistical Task Force (CASTF)'s June 12, 2020, exposure draft containing potential best practices for the Regulatory Review of Predictive Models (RRPM). I note that it appears that the CASTF is working to bring the review process of its white paper to a close. Clearly this is a topic of interest for the Academy's membership. As in our prior two letters,^{1,2} we would like to offer just some brief comments.

I would like to revisit a point from my prior letter. Specifically, in Section VII there is a discussion of regulatory best practices. Item 1.b. discusses the need to determine that individual input characteristics and resulting rating factors are related to the expected loss or expense differences in risk. Later in the document, Appendix B, *Information Elements* A.4.b and B.3.d seeks to obtain information as to the rational relationship or rational explanation that predictive data or predictor variables have to the predicted variable. Predictive data or predictor variables that are related to risk of loss (as demonstrated by analysis of historical insurance loss or expense data across the predictors) are key rational relationships. As we consider this, actuaries are guided by Actuarial Standard of Practice (ASOP) No. 12, *Risk Classification*. Within that ASOP, there are several key considerations to guide both regulators and modelers.

The RRPM White Paper provides considerable latitude in its scope. Perhaps this is in keeping with the range of possibilities that new data sources coupled with broad computing power brings to the predictive modeling field. Insurance underwriting has, for decades, been moved in the direction of greater granularity in its use of data and underwriter judgment. All the while, these efforts have facilitated better pricing accuracy and broader availability of insurance products. In

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https://www.actuary.org/sites/default/files/files/publications/CASTF_Predictive_Modeling_Comments_20190122.pdf

² https://www.actuary.org/sites/default/files/2019-11/CASTF_Academy_Comments_on_RRPM_3rd_exposure.pdf

short, model innovation has many potential benefits to the insurance market. At the same time, there is the potential for modeling to be stretched too far through such innovations. One would hope that application of the RRPM White Paper best practices, used effectively, finds a balance between innovation and control.

New data sources are ever changing, and especially when considered in the context of technological improvements possible for the insurance industry, pose interesting challenges and opportunities. Properly used, these new tools and access to data should lead to expense reductions that ultimately yield lower costs in the insurance system. That said, new data sources require considerable due diligence as they are assimilated into the modeling process. ASOP No. 23, *Data Quality*, is available to guide actuaries as they consider new information sources. We would again hope that a RRPM process will work collaboratively with ASOP No. 23 around new data sources.

Finally, as CASTF moves toward finalizing its recommendations for the RRPM process and thus toward implementation across the various states, I think that it is important to understand the workload challenges that will perhaps result from the new RRPM requirements. Specifically, will the state regulators have the necessary staffing and/or resources to move toward effective implementation?

Thanks once again for allowing this input. The Academy remains available to assist as CASTF moves forward with this.

Sincerely,

Richard Gibson, MAAA, FCAS
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