September 1, 2023

Kathleen A. Birrane, Chair
Innovation Cybersecurity and Technology (H) Committee
National Association of Insurance Commissioners

Re: "Use of Algorithms, Predictive Models, and Artificial Intelligence Systems by Insurers" Model Bulletin exposure draft.

Dear Chair Birrane,

On behalf of the Risk Management and Financial Reporting Council of the American Academy of Actuaries[1] (Academy), and in collaboration with the Academy's Casualty, Life and Health Practice Councils, we are pleased to share these written comments on the July 2023 "Use of Algorithms, Predictive Models, and Artificial Intelligence Systems by Insurers" Model Bulletin exposure draft (Model Bulletin). These comments complement the verbal comments we presented at the Innovation, Cybersecurity, and Technology (H) Committee meeting on August 13, 2023, at the Summer National Meeting in Seattle.

As we noted in Seattle, we applaud the framework's focus on decisions as the key point of interest, as well as the fact that companies have available for review the documentation and governance used for decisions based on artificial intelligence (AI) systems within an insurance organization. This framing will be a key guide in assessing the depth and breadth of any necessary documentation and governance.

Some additional thoughts and reactions include:

- **ORSA.** Reviewing page 4 of the Model Bulletin, we noted that the third paragraph introduces the concept of an "AI System (AIS) Program," which sounds analogous to the concept of an ORSA Program. As in ORSA, the depth and nature of the AIS Program should be "commensurate" to the "risks, decisions and potential harm to consumers" and

[1] The American Academy of Actuaries is a 19,500-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.

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also vary based upon the degree to which the decision-making process relies on AI processes, or third-party data, which lacks sufficient critical human oversight.

Given that ORSA focuses on the documentation of the key risk management principles, measures, and governance that are used by a company, the timeline to develop and implement the structure was done relatively quickly over three to five years. The ORSA framework also allows for regulatory oversight to encourage, adapt to, and learn from the diverse and emerging tools and approaches developed by companies and the actuarial profession. In comparison, the development and implementation of Principle Based Reserves (PBR), due to the necessary detailed focus on specific valuation requirements, was and continues to be a 20+ year process.

- **ENFORCEMENT vs. OVERSIGHT**. We believe additional clarification is needed regarding if and how this framework and its implementation requirements are meant to mimic those used for ORSA requirements. The Model Bulletin states the goal is not to prescribe specific practices or documentation requirements (page 10). Rather, it is to state expectations as to how AI Systems will be governed, as well as the nature of the documentation that is expected to be available upon request.

  As the Committee considers this, we note that the approach used in the Model Bulletin refers to laws already in place, such as the Unfair Trade Practices Act, the Unfair Claim Settlement Practices Model Act, and the Property and Casualty Model Rating Law. This approach has both value and shortcomings. The proposed approach avoids the need to create a new model law, which would then require adoption, with possible modification, by every state within each state's legislative session. But, under this proposed initial framework, there may be wide variation in interpreting how these laws might apply to business practices not present when the original laws were formulated.

  A unique aspect of ORSA relates to the documentation requirements. ORSA requires the documentation be shared without specifically mandating the content, allowing for a tailored report from each entity. This approach is a valuable way to accelerate best practices that will continue to evolve. Not only does it allow the state, as well as the NAIC, to benefit from a perspective of observing and learning from the diverse set of approaches, it also encourages the use of and sharing of emerging best practices. This is true within the evolving practice of risk management as well as within the use and application of decisions based on AI systems. Tools that can be used to accelerate the furtherance of better practice include:

  1. Confidential surveys with public sharing of aggregate information.
  2. "Jawboning" via increased onsite market conduct exams.

We would also underscore that the actuarial profession is actively researching new techniques, analyses, and practices to assess bias and prohibited discrimination, as well as how to apply sound governance of models in general. The literature, practice notes, and current and future inclusion of those developments into actuarial standards of practice (ASOP) will also benefit from regulatory actuaries contributing their unique perspective to the Actuarial Standards Board (ASB) on inadequate practices and governance that they may observe in their oversight roles. As was the experience with enterprise risk management, standards of practice become integral resources, even when an actuary is not the primary individual who develops, oversees, or audits an AI system.

The use of this approach can also be used to oversee the use of third-party data. Vendors will be constrained, knowing that it risks public exposure should its data or processing not have adequate controls, disclosures, or testing. Such a report would likely have an immediate effect on their viability within the marketplace and to their reputation with their client base.

Given this perspective, we believe that there are effective ways to both govern and support the evolution of better practices in such a way that minimizes the concern around the variation of expectations across the states until uniform practices and techniques can be developed.

- **Other Recommendations.**
  In reviewing page 5, within the first paragraph of the Governance section, we recommend reframing the goal of a governance framework to read as "oversight of AI Systems used by the Insurer *as well as decisions about the development of AI Systems.*" This more clearly allows the application of concepts like "commensurate" and "material" when assessing the degree of structure or oversight that is needed.

  Similarly, on page 6, the first paragraph of the Risk Management and Internal Controls section should read as, "[t]he AIS Program should document the Insurer's risk identification, mitigation, and management framework and internal controls for AI Systems generally and at each stage of the AI System life cycle, *proportionate to materiality*." This addition helps address the traditional use of Generalized Linear Models (GLMs) and Generalized Additive Models (GAMs). These models are often used to finalize assumptions for pricing or valuation, and they may or may not have a material impact on the product. However, they allow for a more disciplined use of actual experience, as well as an analysis of actual to expected results.

  Finally, we would mention actuarial standards currently exist that already apply to the work of actuaries within in this space, including:

i. ASOP 12 Risk Classification (Currently being updated with exposure expected in Fall of 2023)
ii. ASOP 23 Data Quality
iii. ASOP 41 Actuarial Communications
iv. ASOP 56 Modeling

The Academy appreciates the efforts and engagement of the NAIC within the AI space and looks forward to our continued collaborative efforts to develop a framework that offers a pragmatic and forward-looking approach to this evolving area. If you have any questions or would like further information, please contact Will Behnke, the Academy's Risk Management and Financial Reporting policy analyst (behnke@actuary.org).

Sincerely,

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Member
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CC: Miguel Romero, Director, P&C Regulatory Services, NAIC