



February 13, 2023

Elizabeth Kelleher Dwyer
Chair, Big Data and Artificial Intelligence (H) Working Group
National Association of Insurance Commissioners (NAIC)

Re: Artificial Intelligence/Machine Learning (AI/ML) Model and Data Regulatory Questions Exposure

Dear Superintendent Dwyer,

Thank you for the opportunity to comment on the recent AI/ML Model and Data Regulatory Questions exposure. The committees of the American Academy of Actuaries¹ Life Practice Council and Casualty Practice Council collaborated to generate the following comments on the Model and Data Regulatory Questions:

- I. Scope: Clarifying language is needed to define what is meant by “3rd party model” and “3rd party data,” as these terms are used interchangeably throughout the document. Further, it would be helpful to clarify that only AI/ML models are within this document’s scope, rather than all models. Providing an FAQ along with this document could be helpful.
- II. Purpose: What is the purpose of the model questions? What key concerns are they attempting to uncover? What lines of business are included? Are there specific processes (e.g., underwriting, pricing, etc.) that this covers, and do those vary by line of business? How will regulators use the information? How will states decide whether the information provided is satisfactory? What is the range of outcomes from the responses to the questions? This context would be helpful in order to determine which questions are of the utmost importance for regulators.
- III. Confidentiality: There is concern about how the proprietary nature of this information will be protected in totality given that confidentiality protections vary by state. Furthermore, there may be a widespread inability to access the proprietary data due to third-party vendor considerations. The sharing of contracts and contract terms reflect more than is generally disclosed, and most of the information in contracts would not be considered relevant to assessments of the appropriateness or efficacy of a predictive AI/ML model. Furthermore, sometimes individuals will “sign off” on an AI/ML model, and it may make sense to ask for certain details about those individuals (e.g., education, experience, etc.), but asking for details on everyone who works on an

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.

- AI/ML model seems excessive: Would it be appropriate to provide details on individuals who sign off and general details about the team (total members, degrees, credentials, years of experience, etc.) in other cases?
- IV. Equity: There is concern over the review of data for accuracy and completeness, as well as the intersection of the Big Data and Artificial Intelligence (H) Working Group with the Special (EX) Committee on Race and Insurance (SCORI).
- V. Practical Issues: What mechanism(s) is/are to be used to ask questions (e.g., market conduct examinations, rate filings where applicable, etc.), and what is the expected frequency of them being posed? We are concerned about the impact on life insurance business, which heretofore has not been under such model review. Would a more limited set of questions be helpful as a starting point with expansion as learnings are gathered? It may be difficult for companies to answer questions about data sources that have been purchased/licensed, especially when the vendors use proprietary methods. It may be difficult for companies to validate third-party data, especially when they are seeking external sources. There are questions about intended and possible uses of an AI/ML model: What if the AI/ML model is used later for a purpose that was not contemplated when originally constructed? Lastly, the term “sufficient” is used without definition in the document.

Below is a list of detailed recommended changes based on the strategic comments outlined above:

- I.B.2. & II.B.2. Change “Describe the due diligence of testing the 3rd party’s model and data for reliability and accuracy.” To “Describe the due diligence and testing performed over the 3rd party’s model and data to ensure their reliability and accuracy.”
- I.C.2 & II.A.2.a.v & II.C.2.b. Include a life insurance example: “electronic medical data are not available for all the people in the data.”
- II.A.1.b. ii. A link to the NAIC AI/ML surveys would be helpful.
- II.A.2.a.iv asks for a “rational explanation” for data/information that could be related to any protected class or socioeconomic status. If it is intended that companies follow the definition of rational explanation included in the NAIC *Regulatory Review of Predictive Models* white paper, a good suggestion would be to include a reference to the white paper definition. In addition, given the variety of protected classes and socioeconomic statuses, further guidance may be helpful as to which protected classes and socioeconomic statuses should be considered. According to Westlaw, there are 10 federally protected classes including race, color, religion/creed, national origin/ancestry, sex, age, physical/mental disability, veteran status, genetic information, and citizenship. Finally, the request for rational explanation assumes companies can analyze relationships between the data/information and protected classes and socioeconomic statuses. Companies do not generally have protected class and socioeconomic status information available. It is recommended to add “to the extent protected class or socioeconomic status is available” to the end of the sentence to recognize the unavailability of such information in some companies. If the intent is to encourage companies to obtain such information, it is recommended to include a reference to the Academy’s Racial Equity Task Force June 2022 issue brief, [Sourcing Protected Class Information in P&C Insurance](#).
- II.A.3.f. “To describe deviations from the model indications/outcome, provide current indicated versus selected tables or similar type of explanation. If applicable, provide the

dislocation from the current model to the new model. Were appropriate adjustments made? Describe how model results were adjusted to mitigate the largest effects of the model.” Was this question referring to upgrades/new models? Clarification would be helpful of what is being asked. Is the first sentence asking for any deviations from the model outcome (e.g., add 10% to what the model outputs). Is this intended to expand 3b. above? Is this needed, given explanation of deviations is asked in 3b.? What are the other three sentences asking for?

- II.A.4.a.i. Change “Identify” to “Describe the use of.”
- II.A.5.b. Instead of “useable,” say “permitted to be used.” This is more to the point of concern.
- II.B.1.d. This question should be clarified. Is this about alternative/challenger models? Models that use similar data but serve different purposes? Using the same data in different steps (e.g., smoker status used for a decision to go/not go into automated underwriting, and then smoker status used to develop a score)?
- II.C.5.c. Is this to describe what’s provided/highlighted in “5.a”? Clarify differences with “5.b.”
- III. It would be helpful to have definitions that are consistent with the surveys. Further, definitions should be included for data and dimensionality reduction.
- III. The definition of Governance Framework and Controls refers to unfair and/or proxy discrimination in different contexts. These terms are not defined within the document and may lead to companies defining these terms differently. It is recommended that definitions be provided for unfair and proxy discrimination, especially if considerations of unfair or proxy discrimination go beyond generally accepted legal definitions. The Academy’s May 14, 2021, [letter](#) to the Special Committee on Race and Insurance suggested the importance of identifying and defining prior to addressing unfair discrimination. Without a working definition, company responses may vary. It should be noted that the [NAIC Principles on Artificial Intelligence](#) includes reference to unfair discrimination “as defined by applicable laws and regulations.” The addition of this phrase may be helpful if the intent is to define unfair discrimination in this manner.

The Academy’s Life Practice Council and Casualty Practice Council appreciate your attention to the comments listed above and look forward to discussing them with you. Should you have any questions or comments in response to this letter, please feel free to reach out to me at hanna@actuary.org.

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Cc: Tim Mullen