Draft Pending Adoption

Draft: 1/5/23

Big Data and Artificial Intelligence (H) Working Group
Tampa, Florida
December 13, 2022

The Big Data and Artificial Intelligence (H) Working Group of the Innovation, Cybersecurity, and Technology (H) Committee met in Tampa, FL, Dec. 13, 2022. The following Working Group members participated: Elizabeth Keller Dwyer, Chair (RI); Amy L. Beard, Co-Vice Chair, represented by Victoria Hastings (IN); Doug Ommen, Co-Vice Chair (IA); Adrienne A. Harris, Co-Vice Chair, represented by Seema Shah and John Finston (NY); Kevin Gaffney, Co-Vice Chair (VT); Lori K. Wing-Heier (AK); Mark Fowler (AL); Evan G. Daniels (AZ); Michael Conway and Peg Brown (CO); George Bradner and Wanchin Chou (CT); John Reilly (FL); Shannon Hohl (ID); Erica Weyhenmeyer (IL); Shawn Boggs (KY); Tom Travis (LA); Christopher Joyce (MA); Nour Benchaaboun (MD); Sandra Darby (ME); Kevin Dyke (MI); Grace Arnold (MN); Cynthia Amann (MO); John Arnold (ND); Christian Citarella (NH); Barbara D. Richardson (NV); Tom Botsko (OH); Teresa Green (OK); Eric Cutler (OR); Shannen Logue (PA); Travis Jordan and Tony Dorschner (SD); Bill Huddleston (TN); Jon Pike (UT); Eric Lowe (VA); Mike Kreidler and Molly Nollette (WA); Nathan Houdek (WI); and Ellen Potter (WV).

1. Adopted its Summer National Meeting Minutes

Commissioner Gaffney made a motion, seconded by Director Daniels, to adopt the Working Group's Aug. 10 minutes (*see NAIC Proceedings – Summer 2022, Innovation, Cybersecurity, and Technology (H) Committee, Attachment Two).* The motion passed unanimously.

2. Received the AI/ML PPA Report

Commissioner Gaffney said the 2021 Artificial Intelligence (AI)/Machine Learning (ML) Private Passenger Auto (PPA) survey was conducted to accomplish three primary goals: 1) to gain a better understanding of the insurance industry's use and governance of big data and AI/ML; 2) to seek information that could aid in the development of guidance or a potential regulatory framework to support the insurance industry's use of big data and AI/ML; and 3) to inform state insurance regulators as to the current and planned business practices of companies.

Commissioner Gaffney said the PPA survey was conducted under the market conduct examination authority of nine states: Connecticut, Illinois, Iowa, Louisiana, Nevada, North Dakota, Pennsylvania, Rhode Island, and Wisconsin. The survey was sent to larger companies, defined as those PPA writers with more than $75 million in 2020 direct premium written. The survey call letter was distributed on Sept. 28, 2021, and survey responses were requested by Oct. 28, 2021. A total of 193 responses were received, and almost 90% of those indicated that they are doing something pertaining to AI/ML. Commissioner Gaffney said the requesting states agreed that the collected data will not be used to evaluate or determine a company's compliance with applicable laws and regulations, and all company-specific information would be kept confidential under state examination authority.

Commissioner Gaffney said 169 companies currently use, plan to use, or plan to explore using AI/ML as defined for this survey. This equates to approximately 88% of reporting companies. Commissioner Gaffney said companies reported varying levels of AI/ML use, from only 2% in the loss prevention area to 70% in claims operations. In order from maximum to minimum use, the percentage of companies using AI/ML are claims (70%), marketing (50%), fraud detection (49%), rating (27%), underwriting (18%), and loss prevention (2%).

Draft Pending Adoption

Commissioner Gaffney said the report provides additional detail on the level of decision making and whether models were developed in-house by an insurer or developed by a third-party vendor. For example, models used to detect first-party and third-party liability tend to be developed by third parties. The report provides a list of third parties by operation area. There are 28 vendors for claims models, 15 for fraud detection, and 39 for marketing. Commissioner Gaffney said the survey results also address the type of data elements used by insurers by operational area, how consumers are notified of the use of data and their ability to request a correction to data being used, and how governance is documented in the company's governance framework.

Commissioner Gaffney said insurers were asked to identify if they are providing additional information about data elements to consumers other than what is required by law. He said the answer, although the number of reporting companies is lower than expected, is almost unanimously "no" for each of the insurer operations, except for rating, which had about 32% of the responses reporting "yes." Many companies discussed having a consumer dispute process. The form of the dispute process ranged from calling the company or agent to dispute erroneous data to allowing policyholders to correct erroneous data themselves through an app.

Commissioner Gaffney said many companies did not answer the question of whether consumers can challenge or correct their specific data outside of processes for the federal Fair Credit Reporting Act (FCRA). Of those companies that answered this question, about 50% said "yes" for rating and underwriting, 40% said "yes" for claims and marketing, 15% said "yes" for fraud detection, and less than 10% said "yes" for loss prevention.

Commissioner Gaffney said the survey asked about documented governance practices tied to the adopted NAIC AI Principles of fairness and ethics considerations; accountability for data algorithms' compliance with laws; appropriate resources and knowledge to ensure compliance with laws, including those related to unfair discrimination; transparency with appropriate disclosures; and secure, safe, and robust systems for privacy risk protections. While the percentage of "yes" responses averaged 67% for most questions, he said the transparency question only received 56% "yes" responses. The answers for rating tended to be higher percentages of "yes" than for the other insurer operations, and the transparency question received noticeably fewer affirmations than others.

Commissioner Gaffney said the report has the following recommendations, which include some activities already in progress:

1. Determine whether to further explore the following subjects:
    a. Insurer AI/ML model usage and the level of decision making; i.e., the amount of human involvement in decision making.
    b. Insurer data elements.
    c. Insurers' governance frameworks and the documentation of such.
    d. Consumer data recourse.
    e. Third-party regulatory framework.
2. Create a risk hierarchy to prioritize the need for more model governance and insurer oversight. The general concept is that more oversight of a model will be needed as the consumer risk or impact increases from the modeling or models.

3. Evaluate consumer data recourse. Insurers report a wide variety of methods for consumers to evaluate and correct data used by insurers. Some methods are short and easy, such as using an app to correct data, and other methods are more time-consuming and require personal contact with the agent or company. In some cases, consumers may not know their data is being used, so consumer transparency is a priority. This is on the radar of the Privacy Protections (D) Working Group.
4. Evaluate the regulatory framework around the use of third-party models and third-party data, including evaluating the ability of insurers and state insurance regulators to obtain needed information from third parties and state insurance regulators to oversee this work either through the insurers or third parties in some way.
5. Evaluate concerns about third-party concentration by insurer use.
6. Determine whether additional white papers on best practices would be useful on subjects in the AI/ML space.

Commissioner Gaffney concluded his remarks to clarify that the report is a report of the nine requesting states (Attachment Two-A), and it is being provided to the Big Data and Artificial Intelligence (H) Working Group for guidance; therefore, the report should be received rather than exposed for additional comment or adopted by the Working Group.

3. Received an Update on the AI/ML Home Survey

Commissioner Gaffney said the AI/ML Home survey is patterned after the PPA survey. The purpose of the Home survey is to gain a better understanding of the industry's use of big data, AI/ML, and what governance and risk management controls are being put in place. The survey also seeks to gather information that may inform the development of guidance or a potential regulatory framework that would support the insurance industry's use of big data and AI/ML in accordance with the expectations outlined in the NAIC AI Principles.

Commissioner Gaffney said the 10 requesting states of Connecticut, Illinois, Iowa, Louisiana, Nevada, North Dakota, Pennsylvania, Rhode Island, Vermont, and Wisconsin issued an informational notice to 194 companies on Sept. 15 and the formal examination call letter on Nov. 1. Any company licensed to write home insurance in one of the 10 requesting states and has at least $50 million in national home insurance premium for 2020 is required to complete the survey. After receiving a request on behalf of several responding companies, Commissioner Gaffney said the requesting states extended the response deadline for the AI/ML Home survey to Dec. 15.

4. Received Comments on the AI/ML Life Insurance Survey

Commissioner Gaffney said the 14 states of Colorado, Connecticut, Illinois, Iowa, Louisiana, Minnesota, Nebraska, North Dakota, Oregon, Pennsylvania, Rhode Island, Vermont, Virginia, and Wisconsin have collaborated to develop a survey to understand how life insurance companies are deploying AI/ML technologies in the following operational areas: 1) pricing and underwriting; 2) marketing; and 3) loss prevention. Similar to the PPA survey and the Home survey, he said the goal of the Life Insurance survey is to learn from the industry about the current level of risk and exposure associated with their use of AI/ML, how the industry is managing or mitigating risks, and what might be the most meaningful regulatory approach for overseeing the industry's use of AI/ML. The survey also attempts to understand the minimum and maximum face amount thresholds at which AI/ML is used. Commissioner Gaffney said the purpose of the Life Insurance survey is not to have insurers provide details of trade secret components or determine company compliance with existing laws and regulations.

Commissioner Gaffney said the following criteria were used to identify which companies should receive the survey: 1) a company with more than $250 million in premiums on all individual policies in 2021; 2) a term writer

that has issued policies on more than 10,000 lives; or 3) a specifically selected InsurTech Company. He said the 14 states will issue a formal examination call letter to a total of 192 life insurance companies. He said the draft survey was circulated on Nov. 10 for a 30-day public comment period, and comments were received from the American Council of Life Insurers (ACLI) and the Center for Economic Justice (CEJ).

David Leifer (ACLI) said the ACLI supports the work of the NAIC, but it believes the survey is more detailed than the PPA survey and Home survey. He said the survey seeks a lot of granular information, and he is not sure how useful this level of detail will be for the discussions of the Working Group. He said the ACLI has some concerns regarding the confidentiality of responses because aggregated information has the potential to identify a company. He said the definitions for the survey could use some additional work, and companies may not provide consistent responses based on the current definitions in the survey.

Birny Birnbaum (CEJ) questioned how state insurance regulators will use the survey information and receive updated information from companies as the market changes. He said it is difficult to determine whether the use of specific data is reasonable unless the use of the data is mapped to a specific company practice. He said the definitions could be clarified. He said the survey should ask if a company tests its AI/ML practices for bias against protected classes, and this is critical information that will help inform other workstreams of the NAIC. He said the survey should address the use of biometrics, and he said he has additional suggestions on how to make the data categories more exclusive of one another.

Commissioner Gaffney said the requesting states will review the submitted comments for possible revisions to the survey. NAIC staff will deploy a Life Insurance survey web page in early January 2023. Commissioner Gaffney said the requesting states plan to issue a thirty-day informational letter to companies identified to receive the formal examination call letter. He said he anticipates that the informational letter will be distributed in early January 2023, and the formal examination call letter is to be issued in early February 2023. Companies will then have 30 days to respond to the survey after the issuance of the formal examination call letter.

5. Discussed Draft Model and Data Regulatory Questions

Commissioner Ommen said Workstream Two of the Working Group was charged with determining the appropriate regulatory evaluation of third-party data and model vendors and producing a recommended regulatory framework for monitoring and overseeing industry's use of third-party data and model vendors. In accordance with this charge, the workstream developed examination standards or questions state insurance regulators can ask about any data and models used by insurance companies, whether that data or model is developed internally or obtained from external sources.

Commissioner Ommen said these questions would form the base questions, and then other NAIC working groups would add additional task-specific questions. For example, the Casualty Actuarial and Statistical (C) Task force has rate modeling and data questions in its *Regulatory Review of Predictive Models* white paper, and the Accelerated Underwriting (A) Working Group has accelerated underwriting (AU) questions in its recent work products. These working groups could eliminate any of their current questions that overlap with these base questions and then maintain the task-specific questions of the Big Data and Artificial Intelligence (H) Working Group.

Commissioner Ommen said the document consists of three main sections. The first section is titled, "Main General Questions," and it includes a list of suggested questions to obtain a high-level understanding of the model or data. The second section, "Detailed and Technical Questions," expands on the first section by including additional details and questions to obtain a more in-depth understanding of the model or data. The third section in the document contains draft definitions of key terms used throughout the document.

Draft Pending Adoption

Eric Ellsworth (Consumers' Checkbook/Center for the Study of Services) said this is a good document, but he said there is still a need to look at model outputs. He said the NAIC should add staff, such as data scientists, and develop the capacity to collect and analyze data on behalf of state insurance departments while also protecting industry trade secrets.

David F. Snyder (American Property Casualty Insurance Association—APCIA) said preventing unfair discrimination is important, but regulatory policy should help ensure that there is a competitive marketplace because a compression of the marketplace could harm consumers. He said the property/casualty (P/C) industry has experienced catastrophe losses, inflation, and higher loss costs. He said a uniform state insurance regulator approach is good, but the use of all questions could be a strain on company resources. He said the questions could also create de facto regulatory standards that are not established legal standards in states.

Birnbaum said the document should include questions about the status of a third-party vendor as an advisory organization and the licensure status as an advisory organization because of antitrust concerns. He said a choice between strong consumer protections and competitive markets is a false choice, and state insurance regulators setting standards of conduct allows insurance markets to flourish. He encouraged state insurance regulators to ask questions that do not result in lengthy, narrative answers.

The Working Group agreed to expose the questions for comment until Feb. 13, 2023.

6. Received an Update from the Accelerated Underwriting (A) Working Group

Commissioner Arnold said an ad hoc group of state insurance regulators has been meeting to consider specific guidance for state insurance regulators with respect to AU in life insurance. She said the ad hoc group identified market conduct as an area where additional guidance could be helpful. She said the discussion of AU needs to be consistent with, and supportive of, all the related initiatives and work being undertaken by other NAIC groups, including the Collaboration Forum of the Innovation, Cybersecurity, and Technology (H) Committee; the Market Conduct Examination Guidelines (D) Working Group; and the Big Data and Artificial Intelligence (H) Working Group. She said the Accelerated Underwriting (A) Working Group has received feedback on the guidance being drafted and will hold an open call to discuss the draft guidance in Q1 2023.

Birnbaum questioned why life insurers' use of credit information is not subject to the same standards as the P/C industry. He said the guidance should address the life insurance industry's use of biometrics, and a life insurer should not be allowed to use biometric information unless the insurer has demonstrated that the use of biometric information does not result in racial basis. He said guidance to the life insurance industry is extremely important because the practices of a life insurer can have a long-term impact on a consumer; whereas, a consumer has more opportunities to change insurers in the P/C marketplace since P/C products have annual renewal periods.

Having no further business, the Big Data and Artificial Intelligence (H) Working Group adjourned.

Sharepoint/NAICSupportStaffHub/Member Meetings/H CMTE/2022_Fall/BDAIWG/Minutes/BDAI Minutes121322-Final.docx

12/2/2022

Attachment Two

Big Data and AI (H) Working Group
Workstream #2
Model and Data Regulatory Questions

This document contains questions that regulators can ask about any models and data used by insurance companies, whether that model or data is developed internally or obtained from external sources. The questions are separated into three sections: 1) Questions to a) Insurers about their own models and b) Insurers or 3rd party (depending on your state's procedures) about the 3rd party model; 2) questions to ask insurers about the use of 3rd party models and data inputs into such models, and 3) questions to ask insurers about the use of 3rd party data.

The depth of study of the model can vary depending on the underlying reasons for the study, therefore we have separated questions into "Main General Questions" and "Detailed and Technical Questions." The "Main General Questions" section includes a list of suggested questions to obtain a high-level understanding of the model. The "Detailed and Technical Questions" section expands on the prior section by including additional details and questions to obtain a more in-depth understanding of the model. Categorizations of the general questions (where underlined) help to match the general questions to the detailed questions. These categorizations are also intended to aid different users in the selection of appropriate questions given the intent of the study. The examiner should evaluate regulatory purpose and use or modify questions for such purpose. A regulator does not need to ask every question for every regulatory interaction. A regulator may also find it helpful to use guidance in the *NAIC Market Regulation Handbook* and specifically targeted questions adopted by other committee groups.

A "Definitions" section is also included at the end of the document to provide clarification regarding some key terms used throughout the document.

I. MAIN GENERAL QUESTIONS

A. QUESTIONS TO 1) INSURERS ABOUT THEIR OWN MODELS AND 2) INSURERS OR 3rd PARTY (DEPENDING ON YOUR STATE'S PROCEDURES) ABOUT THE 3rd PARTY'S MODEL

1. Overview of the Model and Business Purpose: Describe the model and its intended purpose, including how artificial intelligence is used.
2. Data Inputs: Provide a list of all data and information used in the model with their corresponding sources. Describe any additional use of the data other than the primary purpose of using the data in the model.
3. Model Assumptions and Outcomes: Describe the material assumptions made in the construction of the models or for modeling purposes. Were any changes made to the model output, such as deviations from the model indications/output (by either a 3rd party or insurer)? If so, explain.
4. Model Testing/Validation: Describe how the model was tested and validated. Identify who conducted the testing and validation and their qualifications.

5. Governance: Submit a written governance framework and controls that apply to the model. (If the model is from a 3rd party, include the 3rd party's governance framework and the insurer's governance framework.)
6. Consumer Protection and Access: Explain how applicants, customers, or claimants are made aware of 1) the data and information collected and its use; 2) how they can obtain their records and correct any errors; and 3) any time limitations or parameters imposed on the ability to correct the data and information. (If this is not required for a particular model, so state.)

B. QUESTIONS TO INSURERS ABOUT USE OF 3RD PARTY MODELS

Questions in the previous section should be answered by the 3rd party and/or insurer. The following are the additional questions to ask the insurer about its use of a 3rd party's model.

1. Overview of the Model and Business Purpose: 1) Identify the entity(ies) who developed the model, their qualifications, and who the insurer contracted with for its use. 2) Based on the use identified in the previous section about the 3rd party's model, describe how the 3rd party model is used and whether that use aligns with the 3rd party's suggested appropriate uses. 3) Describe the testing performed to evaluate whether the model is appropriate for the insurer's book of business.
2. Model Testing/Validation: Describe the due diligence of testing the 3rd party's model and data for reliability and accuracy.
3. 3rd Party Contract: Provide the purchase contract with the 3rd party owner of the model and highlight the contractual terms related to the model's use.

C. QUESTIONS TO INSURERS ABOUT 3RD PARTY DATA PURCHASE

1. Overview of the Data: Provide a list of all data and information purchased to be used in a model with their corresponding sources. Describe any additional use of the data other than the primary purpose of using the data in the model.
2. Data Testing/Validation: Describe how the insurer vetted the 3rd party data for errors. Explain any significant missing data (e.g., roof condition is not available for houses with significant tree overhang; vehicle use is not included for all people in the data).
3. Governance: Submit a written data governance framework and controls for the insurer and 3rd party.
4. Consumer Protection and Access: Explain how applicants, customers, or claimants are made aware of 1) the data and information collected and its use; 2) how they can obtain their records and correct any errors; and 3) any time limitations or parameters imposed on the ability to correct the data and information.

5. 3rd Party Contract: Provide the purchase contract with the 3rd party owner of the data and highlight the contractual terms related to the data's use.

II. DETAILED AND TECHNICAL QUESTIONS

A. QUESTIONS TO INSURERS AND 3RD PARTY (DIRECTLY) ABOUT OWN MODELS

1. Overview of the Model and Business Purpose:

   a. To describe the model, submit the following model documentation (at a minimum):
      i. Model Type (GLM—Generalized Linear Model, GAM—Generalized Additive Model, Neural Network, etc.).
      ii. If applicable: Sub model Type/s (GLM, GAM, Neural Network, etc.).
      iii. Identify the modeler(s), company affiliation, and qualifications.
      iv. Identify the software used to develop the model.

   b. To describe the intended purpose, including how artificial intelligence is used, submit the following documentation (at a minimum):
      i. Identify the specific use and the company operations (e.g., Claims operations: used to identify which claim's staff should be assigned the claim). See the NAIC's AI/ML surveys for some "uses of model" examples.
      ii. Are there secondary purposes or other potential uses of the model? If so, explain.
         - Questions to Insurers only: Will you be using the model output to address other issues or areas within the Company? If so, explain. Would the model output be appropriate for the secondary purpose? If so, explain. Would the data or results be considered reliable for this secondary use? If so, explain.

   c. (Questions for Insurers only): Identify whether the model is new or an update to a model already used by the insurer. Identify who at your company inputs the data, runs the model, and checks the output and provide their qualifications.
      i. If the model is an updated version, identify the issues addressed in the update and how the updated model addresses the related issues.

2. Data Inputs

12/2/2022

Big Data and AI (H) Working Group
Workstream #2
Model and Data Regulatory Questions

a. To describe the data and information used, submit the following documentation (at a minimum):
    i. A data dictionary, including all variable names (plus all variables that were combined into a new variable), data sources (if external), and data types
        - Identification of the sources for the data, identify as internal/external, and include the sources' company names or other identifier. Explain how the data was collected (e.g., industry compiled, surveys, internal claims system)
        - Identify any unique technology used to collect the data (e.g., cellphones, Open Data Connectivity Devices) and issues around the use of such (e.g., may be a passenger in the car and not the driver).
    ii. Years of data collected and locations included (e.g., states, country) with corresponding data distributions (e.g. exposures by year/state), exclusions or non-use of specific data that would otherwise fit the description (e.g. excluded catastrophe losses), and any exceptions to that description (e.g., did not have sufficient data in one state).
    iii. Describe the process used to determine whether the data is appropriate for use and/or fit for use.
    iv. Provide a rational explanation for any data and information that could be related to any protected class or socioeconomic status.
    v. Explain any significant missing data (e.g., roof condition is not available for houses with significant tree overhang; vehicle use is not included for all people in the data).
    vi. Discuss how data outliers were handled. How was the data tested for outliers (both response and predictor variables)? Were any outliers removed or capped? If so, explain why.
    vii. Identify how frequently the data will be updated (e.g., yearly, weekly, real-time).

3. Model Assumptions and Outcomes:

a. Describe the material assumptions made in the construction of the models or for modeling purposes.
b. Were any changes made to the model output, such as deviations from the model indications/output (by either a 3rd party or insurer)? If so, explain.
c. Identify the model outputs / target variables.
d. Provide model specifications (e.g., link function, distribution, final hyperparameters, tuning process).
e. Describe any dimensionality reduction techniques used.

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.

4. Model Testing/Validation:

a. To describe testing and validation, submit the following documentation (at a minimum):

i. Identify the training, testing, and hold-out data (e.g., distribution of data used included in each subset).
ii. Describe any sensitivity testing and results.
iii. Explain how formula and code was checked for accuracy.
iv. Provide the most recent validation and audit (internal and external) reports.

5. Consumer Protection and Access:

a. Explain how applicants, customers, or claimants are made aware of 1) the data and information collected and its use; 2) how they can obtain their records and correct any errors; and 3) any time limitations or parameters imposed on the ability to correct the data and information. (If this is not required for a particular model, so state.)
b. If a consumer's data was provided to another party for model design, is the consumer's data useable for other purposes or provided to other companies, or does the contract restrict such use?

6. Governance

b. Submit a written governance framework and controls that apply to the model. (If the model is from a 3rd party, include the 3rd party's governance framework and the insurer's governance framework.). The governance framework and controls should include the following (at a minimum):
i. What training requirements are implemented regarding creation or use of models.
ii. Explain security of the model and data. How is access to the model and data controlled? Can individuals access the AI system and tamper with results or the processes? If so, explain.
iii. Identify the scope and process for validity testing. Describe procedures designed to reduce the risk of inaccurate or biased models.

iv. Explain how the implemented model is tracked to evaluate the accuracy of results. Identify how often the model will be updated and reevaluated for effectiveness, efficiency, and appropriate use and how updates of the model or rollouts of the model will be handled.
v. Explain how the governance policy is implemented, monitored, and audited.
vi. Explain how the *NAIC AI Principles* (see "Governance Framework and Controls" in the definitions section) are met in the governance framework.

B. QUESTIONS TO INSURERS ABOUT USE OF 3RD PARTY MODELS

Questions in the previous section should be answered by the 3rd party and/or insurer. The following are the additional questions to ask the insurer about its use of a 3rd party's model.

1. Overview of the Model and Business Purpose:
    a. Identify the entity(ies) who developed the model, their qualifications, and who the insurer contracted with for its use.
    b. Based on the use identified in the previous section about the 3rd party's model, describe how the 3rd party model is used and whether that use aligns with the 3rd party's suggested appropriate uses.
    c. Describe the testing performed to evaluate whether the model is appropriate for the insurer's book of business.
    d. Describe the testing to evaluate any overlap with other models or double counting (e.g., using a variable in a rating model that seems to be assessing the same risk as a rating variable outside the model in another part of the rating algorithm).
2. Model Testing/Validation
    a. Describe the due diligence of testing the 3rd party's model and data for reliability and accuracy.
3. 3rd Party Contract
    a. Provide the purchase contract with the 3rd party owner of the model and highlight the contractual terms related to the model's use.

C. QUESTIONS TO INSURERS ABOUT 3RD PARTY DATA PURCHASE

1. Overview of the Data
    a. To describe the data and information purchased, submit the following documentation (at a minimum):
        i. Data categories (or variables) and data types

ii. Description of data: should include the years of data collected, locations included (e.g., states, country), exclusions or non-use of specific data that would otherwise fit the description (e.g., excluded catastrophe losses), and any exceptions to that description (e.g., did not have sufficient data in one state).
iii. Identify the data sources and include the sources' company names or other identifier. Explain how the data was collected (e.g., industry compiled, surveys, internal claims system)
iv. Identify any unique technology used to collect the data (e.g., cellphones, Open Data Connectivity Devices) and issues around the use of such (e.g., may be a passenger in the car and not the driver).
v. Describe the intended use of the data. How was it determined that the data is fit for its intended use?
vi. Identify how frequently the data is received from the 3rd party and how frequently the new data will be updated in the model (e.g., yearly, weekly, real-time).

2. Data Quality
    a. Describe how the insurer vetted the 3rd party data for errors.
    b. Explain any significant missing data (e.g., roof condition is not available for houses with significant tree overhang; vehicle use is not included for all people in the data).
3. Consumer Protection and Access
    a. Explain how applicants, customers, or claimants are made aware of 1) the data and information collected and its use; 2) how they can obtain their records and correct any errors; and 3) any time limitations or parameters imposed on the ability to correct the data and information.
4. Governance
    a. Submit a written data governance framework and controls for the insurer and 3rd party. The data governance framework and controls should include the following (at a minimum):
        i. Explain security of the data. How is access to the data controlled? Can individuals access the data and tamper with the data? If so, explain.
        ii. Identify the scope and process for validity testing. Describe procedures designed to reduce the risk of inaccurate or biased data.
        iii. Identify how often the data will be updated and reevaluated for effectiveness, efficiency, and appropriate use and how updates of the data or initial rollouts of the data will be handled.
        iv. Explain how the governance policy is implemented, monitored, and audited.

v. Explain how the NAIC AI principles (see "Governance Framework and Controls" in the definitions section) are met in the data governance framework.

5. 3rd Party Contract:
   a. Provide the purchase contract with the 3rd party owner of the data and highlight the contractual terms related to the data's use.
   b. Describe any contractual terms and limitations regarding the use of the data.
   c. Describe the terms of purchase for the 3rd Party Data, specifically any contractual terms and limitations regarding the use of the data.

III. Definitions

The following definitions are provided but may be modified by the Innovation, Cybersecurity, and Technology (H) Committee in the future.

Artificial Intelligence (AI): The ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings[1]. It describes an automated process in which a system begins recognizing patterns without being specifically programmed to achieve a pre-determined result.

Bias: Bias is an effect that deprives a statistical result of representativeness by systematically distorting it, as distinct from a random error, which may distort on any one occasion but balances out on the average[2]. Different kinds of bias include systemic, human, and statistical/computational. Please refer to "Towards a Standard for Identifying and Managing Bias in Artificial Intelligence"[3] for a description of different types of bias.

Governance Framework and Controls: A structure covering practices, guidance, and validation of models. It covers, but is not limited to, the following:

- Fairness and Ethics Considerations: Ensuring responsible adherence to fairness and ethical considerations. Generally, respect the rule of law and implement trustworthy solutions designed to benefit consumers in a manner that avoids harmful or unintended consequences including unfair or proxy discrimination.

[1] https://www.britannica.com/technology/artificial-intelligence
[2] OECD, "Glossary of statistical terms," OECD Online Resource, July 2007, https://stats.oecd.org/glossary/detail.asp?ID=3605
[3] https://arxiv.org/abs/1901.10002

12/2/2022

Big Data and AI (H) Working Group
Workstream #2
Model and Data Regulatory Questions

- Accountability for Data Algorithms' Compliance with Laws as well as Intended and Unintended Impacts: Ensuring the data used and the algorithms/models within the scope of the AI/ML system, are delivering the intended benefit, and there are proactive processes in place to ensure there is no unacceptable unintended impact. Simply put, be responsible for the creation, implementation and impacts of any AI system.
- Appropriate Resources and Knowledge Involved to Ensure Compliance with Laws Including those Related to Unfair Discrimination: Ensuring the requisite and appropriate resources, skillsets and knowledge needed to ensure compliance with laws, including those related to unfair discrimination, are actively involved in these programs and decision-making – including oversight of third parties' understanding and competence related to compliance with relevant laws and the issue of unfair discrimination.
- Ensure Transparency with Appropriate Disclosures Including Notice to Consumers Specific to Data Being Used and Methods for Appeal and Recourse Related to Inaccurate Data: Ensuring documented processes and best practices are in place that govern and actively address the issue of transparency, ensuring adequate and complete/understandable consumer disclosure regarding the data being used and how the data are used, as well as providing a way for consumers to appeal or correct inaccurate data. This is intended to be specific for data not already protected by legislation such as the Fair Credit Reporting Act (FCRA), as the assumption is all companies would be compliant with that law. This pertains to consumer data NOT specified in the FCRA.
- AI Systems are Secure, Safe and Robust including Decision Traceability and Security and Privacy Risk Protections: Ensuring an appropriate governance process is in place and documented specific to the company's AI/ML activity or program that focuses on protecting security, in terms of its data and intellectual property, from potentially compromising interference or risk and relevant and necessary privacy protections are in place; and ensuring the data and the AI/ML models are sufficiently transparent and explainable so that they can be reviewed for compliance with laws and best practices and proven to not be unfairly discriminatory or used for an unethical purpose.

Please refer to the NAIC Principles on Artificial Intelligence (AI)[4] for additional information. It is understood that governance models vary in terms of components and terms used to describe these risk areas. Where there may be concerns about overlap, the intention is for this additional information to clarify the unique intent of each.

[4] https://content.naic.org/sites/default/files/inline-files/AI%20principles%20as%20Adopted%20by%20the%20TF_0807.pdf

12/2/2022

Big Data and AI (H) Working Group
Workstream #2
Model and Data Regulatory Questions

Machine Learning (ML): Machine Learning is a subset of Artificial Intelligence. It covers the discipline concerned with the implementation of computer software that can learn autonomously[5].

Model: A simplified description of a real-world system using Machine Learning or Artificial Intelligence.

[5] https://www.britannica.com/technology/machine-learning

Attachment Three

Comments on Model and Data Regulatory Questions

March 8, 2023

American Academy of Actuaries

American Council of Life Insurers

America's Health Insurance Plans

American InsureTech Council

American Property Casualty Insurance Association

Center for Economic Justice

National Alliance of Life Companies

National Association of Mutal Insurance Companies

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 Actuaries[1] 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.

Craig Hanna
Director of Public Policy
American Academy of Actuaries

Cc: Tim Mullen

ACLI
Financial Security for Life

Dave Leifer
Vice President & Senior Associate General Counsel
(202) 624-2128 t
davidleifer@acli.com

February 13, 2023

Superintendent Elizabeth Keller Dwyer (RI),
Chair, Big Data & AI (H) Working Group
Commissioner Amy L. Beard (IN),
Co-Vice Chair, Big Data & AI (H) Working Group
Commissioner Doug Ommen (IA),
Co-Vice Chair, Big Data & AI (H) Working Group Superintendent
Adrianne A. Harris (NY),
Co-Vice Chair, Big Data & AI (H) Working Group
Commissioner Kevin Gaffney (VT),
Co-Vice Chair, Big Data & AI (H) Working Group

Re: ACLI Comments on the Draft NAIC Model and Data Regulatory Questions

Dear Chair and Vice Chairs:

Thank you for the opportunity to comment on the draft NAIC Big Data and AI (H) Working Group Model and Data Regulatory Questions (Workstream #2) which were exposed this past December. The American Council of Life Insurers (ACLI) always appreciates engaging on important issues, especially those associated with accelerated underwriting, artificial intelligence, and machine learning. ACLI's member companies believe the Regulatory Questions provide a reasonable basis upon which individual states can engage with licensed entities regarding the use of "big data" for insurance purposes. As discussed below, we do have concerns about the potential breadth of the questions. Fewer, targeted questions in our view will be of greater use to regulators. Definitional precision will also promote more accurate and useful results.

Given our understanding that a model bulletin is forthcoming, we would find it helpful if the Working Group could more clearly articulate the purpose(s) of this document. In this vein, we look forward to the various NAIC workstreams related to these topics coming together in the Collaboration Forum (or elsewhere) where a unified work product can be produced.

The scope of information is extremely broad, and we believe a more streamlined framework tethered to specific objectives would be more suitable for this purpose. At a minimum, we urge the Working Group to make clear that this document reflects questions and data collection that might be considered by individual departments. It is not intended as something that should be embraced in total and conveyed to insurers for completion.

ACLI agrees that the depth of detail appropriate for regulatory inquiry will depend on several factors, including the insurance activity under consideration, the size of the insurer, the extent of data utilized, the uniqueness of the applications and likely many others. Different lines of insurance will of course at times require separate oversight. For example, life insurers will likely use big data in ways dissimilar to property/casualty insurers. The extent to which data is utilized in a consumer-facing way versus internal/business-focused is likewise a critical distinction in our view.

While we are supportive of this exposure on a conceptual level, there are a number of edits and clarifications we would like to see made to the document. These changes, which are outlined below, will be of use to regulators and industry by helping to mitigate the possibility of inappropriate or inaccurate data collection as we work collectively to tackle the challenges brought on by the increased use of artificial intelligence and machine learning in insurance. As a drafting observation, a number of sections appear duplicative, even accounting for the different categories of questions. The document could likely be shortened with no substantive loss. Our comments are organized with general feedback grouped under descriptive headings, followed by some specific comments applicable to certain questions that is set forth in an accompanying appendix.

Breadth of Requested Information

The Big Data and AI (H) Working Group Model and Data Regulatory Questions applies to "any models and data used by insurance companies . . ." Generally, we believe this casts far too wide a net to be meaningful. We urge that the document be more specific about exactly what type of model or data is contemplated. Insurance companies may use models and data that are of less concern to regulators because those systems are only tangentially related or not related at all to consumers' ability to secure insurance or receive benefits. By using the word "any" even minor systems can be subject to burdensome groundwork and inquiry.

While insurers are focused on data protection and likely have structures around the documentation of larger models from a descriptive, validity, and efficacy perspective, the number of and degree of details required from the questions could prove burdensome for many companies. Data catalogs, for example, could be cumbersome for most to provide.

As we are all aware, confidentiality of data and other information is extremely important. Gathering data absent specific and clearly articulated needs may create risks for consumers, regulators and companies. We urge that appropriate, robust confidentiality and data security protections be considered as critical components of any collection.

Dependent upon regulator interpretation, models and smaller uses of data could require a disproportionate amount of work to comply with the questions as written. Disproportionate and excessive amount of work may lead to a reduction in the use of AI and/or models that benefit consumers simply because it could not muster the resources to comply with regulatory expectations.

Further, if the Departments and/or the NAIC request all of this information, they will be buried under mountains of information and will struggle to make sense of It will take significant resources to understand and process the information provided by a single insurer. In addition, lengthy investigations will potentially tie up highly specialized and technical insurer personnel over a long period of time. As just one example of the impracticality of certain inquiries, the

identity of employees who perform specific tasks does not seem useful or reasonable. Seeking generally applicable governance information would seem much more appropriate.

We suggest that the regulatory questions apply only to those models and data likely to impact the consumers' ability to secure insurance coverage or receive benefits. Similarly, while the preamble does state the questions are at regulator discretion, we suggest a greater emphasis on practicality and proportionality. Finally, there is no distinction drawn between regulator questions posed to personal lines insurers vs. commercial lines insurers, nor between P&C and life/health. We urge the regulatory community to consider whether the lines of inquiry need to be addressed in the same fashion.

Proportionality

Because the definition of AI is broad, and there is no reference to the level of risk raised by the type of AI being used, the questions suggest that insurers will need to apply the same level of governance regardless of the risk presented by the AI. This approach will lead to companies devoting resources to ensuring readiness across low-risk processing. Because these restrictions are not found in other industries that use data in a similar manner, this will present unnecessary barriers to innovation that will not apply outside of the insurance sector. In order to avoid this impact on insurers, we suggest that the regulatory questions differentiate between high-risk and low-risk models, and that the regulatory questions be drafted as applicable only in the context of high-risk AI that is likely to impact the consumers' ability to secure insurance coverage or receive benefits.

This approach is not unique. The AI Act in the EU differentiates between prohibited, high, and limited risk AI, applying the more rigorous requirements to the high-risk AI. In fact, it is anticipated that 80-90% of AI activities will not be regulated by the AI Act. If, unlike the EU approach, these questions are left to apply to all AI, non-insurers will be able to focus on high-risk AI while insurers will not. This lack of balance between industries presents a significant competitive disadvantage to insurers and does not benefit consumers. The scope of application of the regulatory questions could be improved by adding language that clarifies that the exercise is applicable solely to high-risk models.

Regulation of 3rd-Party Vendors

We believe that insurers typically make every effort to perform due diligence on vendors prior to the execution of a contract. To suggest, however, that an insurer can govern how a vendor does their job is neither realistic nor desirable. Insurers may contractually agree to certain expectations or standards, but some of the questions delve into detail that no insurer can be expected to impose on a 3rd-party. More to the point, the contractual language between insurers and their vendors is highly proprietary. Contracts between insurers and vendors typically prohibit the insurer from sharing proprietary information with anyone outside the company. 3rd-party intellectual property (how their models work) will certainly be proprietary information. It is most unlikely that they will give that information to an insurer so that it in turn can be conveyed to insurance departments or the NAIC. In fact, contracts will likely contain fulsome non-disclosure provisions covering much of the information sought in the regulator questions, particularly the Detailed and Technical Questions.

Generally, the material pertaining to 3rd-parties seems overbroad and burdensome. While companies should conduct due diligence on 3rd-party vendors, at some point the insurer is

going to need to rely on the vendor to provide accurate information. Governance should be focused on the insurer's use of 3rd-party data and it should not expected that the insurer will work with the 3rd party data provider to implement a governance process.

Inquiries Related to Consumer Protection

There are several sections related to Consumer Protection and Access. These sections ask for insurers to explain how applicants, customers, or claimants are made aware of 1) the data and information collected and its use; 2) how they can obtain their records and correct any errors; and 3) any time limitations or parameters imposed on the ability to correct the data and information.

This line of inquiry seems misplaced in this document as the main thrust of the Model Questions is to obtain better regulator understanding of the uses of models and data, and the macro impact on the insurance marketplace. Questions related to individual privacy rights, as important as they are, would seem better addressed in an NAIC privacy-focused group. For example, the NAIC Insurance Information & Privacy Protection Model Act is currently under review, and this project seems more appropriately tailored to an exploration of models and data in connection with aspects such as the FCRA or privacy notices.

Grounding in Existing State Law

ACLI also believes that wherever possible the document be anchored to relevant state law. We appreciate the NAIC's and states' efforts to develop some technical expertise, but it is also important that deference be provided to applicable law. Some reasonable guardrails around inquiries like this are appropriate. There is a reference to the NAIC Market Conduct Examiners Handbook, but a more detailed framework seems to be necessary

Definitions Issues

The Definitions section in our view should be significantly revised. The definitions and sources being utilized in the current draft are unclear and outdated. Importantly, the definitions should be consistent across the NAIC workstreams. For instance, we understand the development of an NAIC model bulletin will be done in the Collaboration Framework in the near-term and will include a glossary of terms. As such, that glossary should align with terms utilized in this document as well.

Currently the document uses a definition of AI from Encyclopedia Britannica. However, AI could be used in a variety of circumstances within an insurance company. There is no distinction between models or AI used with direct impact on insureds vs. that which is used for other purposes like gaining operational efficiencies. A definition of AI should be tailored to avoid inclusion of general automation or automated decisions. More widely accepted definitions exist from SOA and other sources and could be utilized. As we have commented elsewhere, we believe the NAIC would benefit from the development/adoption of well-thought-through definitions that will be used across all workstreams. The NAIC Accelerated Underwriting Working Group is an example of significant time devoted to a definition of "accelerated underwriting" with wide stakeholder input. Additional terms that in our view require definition and/or greater clarity and context are listed immediately below—some simply listed and others listed with amplifying comments/questions.

- The definition of Artificial Intelligence needs to be updated as there's an argument that companies are always trying to obtain a pre-determined result. In addition, clarification is needed around whether an "automated process" includes training a model with supervised machine learning.

- What is meant by "3rd-party" data? Is it any data other than directly provided by the insured? For instance, Section II.C focuses on "3rd party data purchase" but that is not how the term is used elsewhere.

- Testing and validation should be clearly defined. The term 'validation" could be interpreted as independent 3rd-party validation and would be a large requirement for insurers to meet. There should be clarification around the level of rigor and independence that is intended with testing and/or validation.

- There are several references to the term "accuracy". This term should be defined/modified.

- The terms "inaccurate or biased models" and "inaccurate or biased data" are used in the document. Given recent focus on bias, as related to protected class and specifically race, it is worth clarifying if the mention of bias is regarding protected class status.

- The definition of "Model" is very narrow and confines models only to those that leverage AI/ML
  - This is consistent with the definition of models that are AI Governable but is not consistent with the definition of a model in SR11-7, which is used to govern all models (regardless if it uses AI/ML or not.

- AI describes an automated process in which a system begins recognizing patterns without being specifically programmed to achieve a pre-determined result"

  - This is too narrow as it equates AI with ML. AI is larger (and more difficult) to define

- ML "It covers the discipline concerned with the implementation of computer software that can learn autonomously"
  - This is not fully correct, as "autonomously" can be a loophole, rendering the scope of the definition of a model to be too narrow
  - For example, if a model is developed using ML techniques and set into production, yet it does not retune itself autonomously - based on say data or model drift (humans may detect using model monitoring techniques and pull it out of production to retune it when necessary), then it is still an AI/ML model which needs to be governed and not excluded from scope

  - Currently too simplistic and focused on 3rd parties that create or sell and ML-powered model to an insurer. For example, would a service that uses an ML model of their process fall in scope?

- Material Assumption (for a model)

- Significant Missing Data

- Model Update (versus new)

- We focus on models in production that are being used as being separate things regardless of the fact that they may be variations of each other

- Deviation (from the model indications/outcome)

- Sensitivity (for testing purposes)

- Accuracy (formula, code, model)

- Note that "accuracy" is a very specific technical definition when applied to models, and hence is too narrow (think confusion matrix definition)

- Other Companies

- Imprecise
  - If a 3rd party shares data with one of their subsidiaries that is not set up as an independent company, is that appropriate?
  - Can a 3rd party widely share data across their Company without triggering this?

- Model Effectiveness/Efficiency

- Model Tracking
  - Could be interpreted as model inventory and who is using it
  - Based on intent, this could be model monitoring, which focuses on monitoring model performance against technical and business expectations

- 3rd Party Contract

- Master Services Agreement, Initial Contract, Subsequent Engagement Contracts

- Definitions would be helpful for the following terms:
  - 3rd party model
  - 3rd party data purchase
  - data dictionary (as used in II.A.2.a.i)
  - data type (as used in II.A.2.a.i)
  - outlier (as used in II.A.2.a.vi)
  - validity testing (as used in II.A.6)

Other Issues and Concerns

Generally, there appears to be redundancy between questions asked in various sections. It is recommended that the questions only be asked once to prevent confusion. The idea behind the structure and division of these questions may be well intentioned, but the end result is very duplicative. Again, we would recommend a streamlined approach that will likely obtain more useful answers and avoid undue burdens. This will also better balance the goals of the Working Group to protect consumers while also promoting innovation.

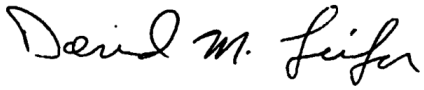
The draft Model and Data Regulatory Questions currently appears to apply to all lines of insurance. Because of the differing in underlying law and regulations, parts of the current draft do not work for certain lines of business. For instance, the draft questions reference "state's procedures" for models which is applicable to property and casualty products but not life

products. Another place where the product discrepancy is apparent is in questions that focus on “years of data collected” and a requirement to explain “any significant missing data”. Unlike P&C related models which may be updated with new information and that may change from year to year, life and similar products are underwritten only once. Therefore, “years of collected data” would not be applicable. We would suggest that the Model and Data Regulatory Questions be developed by line of business.

We also urge that the references to “other uses of data” be stricken. This is both overly broad and would appear to be beyond the scope of this document.

We look forward to playing a constructive role as the Working Group continues its deliberations around the draft Model and Regulatory Questions.

Sincerely,



David M. Leifer

Cc: Tim Mullen, Director Market Regulation, NAIC
Miguel Romero, Director P&C Regulatory Services

Appendix of Additional Commentary

Feedback From ACLI Member Companies Related to Specific Questions

The request for the name of the person who inputs the data, runs the model, and checks the output and their qualifications seems excessive. Information about the roles that can do each of these activities (which may not be the same person) should be captured in model governance.

I.A.6.:
Should carriers expect this to be a new requirement given some elements are covered under existing state insurance privacy laws?

I.A.5.:
Instead of asking carriers to submit a written governance framework, it would be helpful for the NAIC to provide some detail around the governance they are looking for (e.g., Change request process, model monitoring process).

I.C.1.:
If the scope of the questionnaire is models used for a specific purpose, questions around the use of 3rd party data outside the model should be out of scope.

II.A.c.i.:
This item implies we have a log of every single change that was made to a model with descriptions of what was updated which is a high bar. Is this truly the expectation and, if so, at what level of detail would the logs need to be maintained (e.g., renamed a variable)?

II.A.2.a.:
Any required description of the data and information used in a model should be limited to implemented models. Documentation for all data that went into training a model would be cumbersome and probably not provide much value.

II.A.2.a.iii.:
More guidance is needed on how carriers will be expected to describe a variable as being "appropriate" or "fit" for use (vs. not appropriate / not fit).

II.A.2.a.iv.:
Section II.A.2.iv directs companies to "Provide a rational explanation for any data and information that could be related to any protected class or socioeconomic status". The question is problematic in that there are likely many explanations for how data elements could be related to these factors, and if such information is required for insurance underwriting or suitability purposes. Given the large amount of data that can feed into AI/ML models, producing the rationales could be a monumental task. In life insurance, some traditional UW variables may be directly related to protected classes or socioeconomic statuses. It is important to consider what variables go into a model, and how the model output performs with respect to protected classes. The context is crucial. What is the information that regulators are looking to obtain? Additional discussion is needed to ensure that the questions being asked produce the desired information.

II.A.2.a.v:

A more helpful question would be “Explain how missing data was handled?”

II.A.3.:
“Model Assumptions” – it would be helpful to have some examples of what they are most interested in here.

II.A.4 (and II.B.1.c-d):
This seems like a lot of documentation to ask a business area to maintain. If there is specific documentation regulators would like carriers to have, it would be helpful to have that guidance.

II.A.6:
“What training requirements are implemented regarding creation or use of models.” – It’s not clear what they are asking for here. Examples would help.

- In several places, when talking about data (e.g., Main Questions Subpart A and C), the questions focus on additional uses of the data “other than the primary purpose of using the data in the model”. The inquiry is broad and appears to require that companies disclose every instance that data is used. Is that really the intent? And all data that goes into a model or just certain types of data (maybe that is purchased)?

- The term “accuracy” should not be used in section I.B.2. While ”accuracy” can be a general term, accuracy in a statistical sense is a specific calculation to measure model performance. In evaluation of model performance accuracy should not be used in isolation as a measure of a model’s success. We would suggest a change from “reliability and accuracy” to “fit for purpose of the given business use case and overall performance”.

- The overall level of details collected through Section II risks revealing information about individual company proprietary business practices. The collection of 1) a data dictionary of all variables; 2) construction of target variables; and 3) model specifications would permit the replication of company models and potentially derive proprietary business decisions. It may be more meaningful to regulators to use high-level methodology of models for regulatory examination purposes. In addition to the business proprietary risk, the granularity of the current questions pose a problem of complexity for regulators who may not have adequate resources.

- What is meant by Section II.A. “and 3rd PARTY (DIRECTLY)”? Is that different from the other sections asking about 3rd-party models?

- Section II.A.c. poses the inquiry around a model being new or existing, however the question provides no timeframe to measuring from. In that same section, there is also a lack of clarity regarding the question about “who” does certain things. Does this apply to roles/departments as opposed to actual persons?

- Section II.A.2.a. ii or v do not seem applicable to life, which is again another reason why it may be better to approach this product line by product line. Similar buckets of information are requested elsewhere as well.

- In several places (e.g., II.A.3), a response is requested to provide deviations from the model output. What does that mean?

- Section II.A.5. asks for information regarding data being provided to "another party" for model design. Is the intent to find out if a company is working with vendors to help with model design? Or is this a question about sharing data?

- Section II.B. notes that questions in the previous sections should be answered by the 3rd party/insurer. Is the intent that the regulator would ask the 3rd party directly those questions? The next sentence there seems to suggest it might. Or is the intent for carriers to obtain that information from the 3rd parties?

- If a company has a process that integrates homegrown and vendor models, how should companies answer some of these questions?

- Section II.A.6.b.i needs additional clarification. What is meant by training? Is this model governance or model risk management training, technical training, ethics training, data governance training, and/or other training? Is this meant for the model developer, model user, or other party involved in the model lifecycle?

- Focus here is bias against protected classes/races. It would be helpful to make that clearer, rather than talking about bias in a general way that does not address regulatory' concerns.

- Another concern is expectations around transparency. See I.A.6; I.C.4; II.A.5; II.C.3; and "Ensure Transparency" bullet on page 9. By way of analogy, we do not disclose to consumers every detail of how their insurance product has been priced. For AI, we seem to be imposing a much higher standard. Request the WG clarify that a disclosure "regarding the data being used and how the data are used, as well as providing a way for consumers to appeal or correct inaccurate data" does not suggest disclosure of actual data sources, but rather, a general description of what has been used and how to inquire about it. (If we are required to list the actual data sources for the consumer, this could be hundreds).

- Will these questions apply to only those models and data sets that have been identified as posing a *significant risk* to individuals? It would be incredibly burdensome, and offer little meaningful protection to consumers, to disclose the information requested in the questionnaire for every use of AI. Ideally, this questionnaire would be used only for AI systems that pose a significant risk to individuals.

- The obligation to vet 3rd party data for errors is impractical. 3rd party providers of AI services are unlikely to let customers "vet" their data, and most insurers are ill-equipped to do such vetting.

- The requirement in II.A.2.a to "provide a *rational explanation* for any data and information that could be related to any protected class or socioeconomic status" is concerning because a carrier's "rational explanation" may not be shared by regulators. It is very difficult to know what data *could be related* to any protected class or socioeconomic status (e.g., listening to a certain radio station, frequenting a particular

retailer). A more pertinent requirement would be: "Describe how you verify that data points predictive of risk are not directly correlated with a protected class or socioeconomic status."

- The definition of "Governance and Framework Controls" in Section III effectively mandates that companies create an AI compliance framework with specific elements and controls. If the NAIC intends to mandate a compliance framework, the NAIC Model Law #674, not the regulators' questionnaire, is the appropriate place to do so.

- Distinction between 3rd party models and 3rd-party data – Definition should be included to clearly define these two terms. Insurers may receive recommendations from vendors who are applying a set of rules to produce such recommendations and would be helpful to distinguish that this would be considered receipt of data vs. licensing or purchasing a model utilized by the insurer to produce results.

- Similarly, would be helpful to confirm a "3rd party" is one layer down from insurer – 3rd parties may utilize other 3rd parties in producing their output; trying to go down multiple layers would be unwieldy.

- In inquiring about insurer models, limit questions regarding secondary purposes or other "potential uses" to only secondary purposes. Like the "plan to use" questions in the NAIC AI Survey, the parameters around something like "potential use" is hypothetical and broad.

- Testing for overlap with other models in terms of the same risk may be a challenge in the life insurance context, where the primary risk is always going to be mortality but assessed based on multiple factors. Consider whether this question is relevant for the life insurance industry.

- Data Testing/Validation should be revised to reflect more of a process for vetting the data source for reasonableness and having appropriate back-end processes for disputing data.
  In inquiring about data used in insurer models, the question regarding data and info that could be related to any protected class or socioeconomic status feels more appropriate for discussion in the testing process for how models are vetted to ensure no unintentional bias. It is a very broad request to identify any data that could be related without the context of those coming out as potentially correlative in testing.

- Identifying significant missing data could be challenging – is this limited to data that is known to be unavailable or advising on such that could be incomplete?

- Definition of AI – recommend consistency with NAIC definition as outlined in survey. Currently multiple definitions exist across workstreams and consistent and uniform one should be utilized.

- Fairness should be a separate bullet point and not part of secure/safe/robust. Although one can argue that it is part of being safe, fairness is a socio-technical concept and much larger than safety, which can be interpreted narrowly

- Fairness to “proven” may not be possible. This requirement is akin to code being proven not to have any bugs - a provably impossible task.

- Asking for a Governance Framework and Data Governance Framework is not enough

- We know that there is interdependence between privacy, data, AI, and data purpose and protection governance

- Templates are needed for required submissions
  - For example, for Governance Frameworks, and other required submissions
  - Otherwise, it will risk inconsistent reporting and will be a nightmare to compare apples with apples

- We are also supportive of the following statement in the second opening paragraph
  - “The examiner should evaluate regulatory purpose and use or modify questions for such purpose. A regulator does not need to ask every question for every regulatory interaction. A regulator may also find it helpful to use guidance in the NAIC Market Regulation Handbook and specifically targeted questions adopted by other committee groups.”
  - To help make it effective, a matrix of “regulatory purpose” to “questions from the three cited sources” would be enormously helpful to understand intent
  - A decision tree for examiners and regulators would also be helpful to ensure consistency of application

- Sec II.B.1.d
  - “Describe the testing to evaluate any overlap with other models or double counting”
  - Unclear (even with the example provided)

- Sec II.C.4.a
  - This section seems to be similar to II.A.6.b, but not quite the same
  - Was that intentional? If so, why?

- Other (suggestions)
  - Only keep new requirements for the “Detailed and Technical Questions”. Don’t repeat if identical to the “Main General Questions”
  - Parts pertaining to “Consumer Protection and Access” and “Governance” need to be swapped in numbering to be consistent across “Main General Questions” and “Detailed and Technical Questions” sections

- Sec. II.A.1.c.i:

- “If the model is an updated version, identify the issues addressed in the update and how the updated model addresses the related issues.”

- What scale of updates are they interested in? What level of detail is requested for “issues”? Any issues detected could of course be sensitive and nuanced. Outside of a specific regulatory study this question seems onerous for insurers and difficult to analyze at-scale.

- II.A.2.a.i:

    - Asks for “a data dictionary, including all variable names (plus all variables that were combined into a new variable), data sources (if external), and data types.”

- Given that this level of detail seems perhaps most helpful if trying to replicate results, I would be curious to hear NAIC’s broader stance on model audits conducted by 3rd parties. This will be tougher for them as NY local law 144 is also muddled on this]

- 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.”
    - This is unclear wording.

- III:
    - Footnote 3 links to the wrong citation. We agree with including the citation mentioned in the actual text (NIST). The link https://arxiv.org/abs/1901.10002is to a paper titled “A Framework for Understanding Sources of Harm throughout the Machine Learning Life Cycle”. The correct reference for “Towards a Standard for Identifying and Managing Bias in Artificial Intelligence” is https://www.nist.gov/publications/towards-standard-identifying-and-managing-bias-artificial-intelligence”

601 Pennsylvania Avenue, NW
South Building, Suite 500
Washington, D.C. 20004
T 202.778.3200
F 202.331.7487
ahip.org

February 13, 2023

Elizabeth Kelleher Dwyer, Chair
Big Data and Artificial Intelligence (H) Working Group
Rhode Island Department of Business Regulation

c/o National Association of Insurance Commissioners
Attn: Tim Mullen, Director Market Regulation
Via email: TMullen@NAIC.org

Re: Proposed Model and Data Regulatory Questions

Dear Superintendent Dwyer;

On behalf of AHIP's member plans, we welcome the opportunity to comment on the Proposed Model and Data Regulatory Questions. We hope the comments will assist you in developing a measured approach to these complex and rapidly evolving issues.

Before discussing some specific questions and suggestions, we want to offer some broad concerns which arose repeatedly as our members reviewed these proposed questions.

Overall, the circumstances surrounding the use of these questions aren't clear. The introduction on page 1 mentions an "examiner" in only one place, but there is also mention of multiple regulatory interactions. So, it isn't clear whether these questions are intended to guide regulators only in the course of an examination, or if they were intended for use in other circumstances. This is important due to the highly sensitive and proprietary nature of many of the intellectual property matters being sought, and the lack of adequate statutory confidentiality protections for any such responses an insurer or third-party might provide. Certainly information gathered in the course of an examination would have statutory confidentiality protections. For a developer of an AI model, however, this might not be enough. As a practical matter, the developer's pursuit of relief for any unauthorized disclosure of the proprietary material might be blocked by the regulator's sovereign immunity. This problem is even more acute if the information is sought outside of an examination. Under either circumstance, the inquiries could have an inhibiting effect on the availability of cutting-edge technology for insurers. In the case of a third-party developer, the insurer may be blocked by contractual terms from sharing much of the information being sought. This situation might substantially limit the usefulness of many of the proposed questions.

Another broad concern which arose is a recognition that the field of AI is sprinting ahead at near-lightning speed. For example, just in the past few months, ChatGPT has been in the news almost

daily, and in the last few weeks, word has spread of Whisper.cpp, https://github.com/ggerganov/whisper.cpp, an AI transcription program developed *in just five days* by a Bulgarian programmer and which transcribes spoken word nearly instantaneously with uncanny accuracy not available in programs before. Just as noteworthy, the programmer has made it open-source, available for anyone to download to their laptop for free. Read the story These developments and a host of others lead us to recommend that these questions generally might draw more useful information for regulators if they sought more information on the high-level aspects of AI/ML usage in insurance rather than specific details such as model, category types, and data inputs.

With those foundational concerns in mind, we would offer these comments to the following specific questions:

I.A.2. Data Inputs. We would suggest deleting this question entirely. If not deleted, consider asking for data elements, rather than "a list of all data and information…" As worded here, the response could be prohibitively voluminous. Much of this material is also likely to be proprietary, and the request for other additional uses of the data seems irrelevant to the topic of the questions. Applicable also to I.C.1. and II.A.2.

I.A.3. Model Assumptions and Outcome. A member noted his concern with what type of "assumptions" this question seeks – statistical or other, and another member noted that assumptions aren't usually captured. Also applicable to II.A.3.a.

I.A.4. Model Testing/Validation. In many cases, models are reviewed as developed by the builder/developer who might use hold-out data for testing purposes. However, models are generally not externally tested, so this question might not draw much useful information. Also, if this question is intended to relate to bias testing, it should so state. Also applicable to I.B.2, and I.C.2.

I.A.5. Governance. We support appropriate governance practices, but note that standards are rapidly evolving in this area and updates are often frequent. It is unclear how companies are able to enforce this requirement on vendors at this time, including ensuring timely updates. We support accountability and good governance but want to balance innovation and companies' (vendors') ability and willingness to work with insurers. Also applicable to I.C.3.

I.A.6. Consumer Protection and Access. Is this question to determine if the insurer is in compliance with GLBA, HIPAA, and/or state law requirements, or for some other purpose? We would suggest it be rewritten to ask, "Do you comply with the applicable laws related to consumer protection and access as required by the states in which you operate?" Also applicable to I.C.4 and II.A.5.a.

I.B.1(3). Model Overview/Testing. Rewrite to read, "Describe how the model is appropriate for the insurer's book of business."

I.B.2. Model Testing/Validation. Delete "due diligence" so the question asks about the testing generally.

I.B.3. 3rd Party Contract. The purchase contract is likely to be deemed proprietary by the vendor. Also applicable to I.C.5, II.B.3., and II.C.5.
I.C.2. Data Testing/Validation. We'd suggest rewriting as follows: "Describe your testing processes to ensure the 3rd party data meets the requirements defined in the agreement."

II.A. Questions to Insurers and 3rd Party (Directly) About Own Models. Are these questions intended to align with existing and developing nationally uniform standards such as NIST and other sector-specific, consensus-based guidance? Also applicable to II.A.6.b.vi.
II.A.1.b.ii. Secondary Purposes. The purpose behind the questions pertaining to secondary use is unclear. If the model output and data could be considered appropriate and reliable for a secondary purpose, wouldn't the company use it for that?
II.A.1.c. For Insurers Only. Members report to us that models are constantly evolving to the extent that logging and reporting all "updates" could serve to inhibit the deployment of the model.
II.A.2.a.i. Data Dictionary. Asking for all variables, as well as "all" variables which were combined into a *new* variable, can easily be impossible due to the volume of data required to respond.
II.A.2.a.i, 2nd bullet. As noted in our introductory comments, many or perhaps even most of the questions asked may seek proprietary intellectual property. This question seeking "unique technology" is one such question. Also applicable to II.C.1.a.iv.
II.A.2.a.iv. **Implicit Bias**. This question could use some increased clarity, perhaps by adding the word "uniquely" before "related to any protected class or socioeconomic status." Otherwise, it would seem *all* data is related to some protected class or socioeconomic status.
II.A.2.a.v. Missing Data. This question should be rephrased to state how missing data was handled.
II.A.3.d, e, and f. Assumptions and Outcomes. Members see these matters are highly proprietary.
II.A.6.b.i. Training. This question is unclear – does it mean training by the company to the company employees who use it?
II.C.1. Overview of Data. It is difficult to understand how this question can draw information which regulators could assess clearly.

III. Definitions.

Artificial Intelligence: This definition may not align with the definition previously used in the Private Passenger Auto and Life surveys. Members noted this definition could be read to include a pocket calculator or Excel program, and suggested aligning the definition with the OECD or federal entities.

Bias: Members thanked NAIC for referring to "Towards a Standard for Identifying and Managing Bias in Artificial Intelligence."

Governance Framework and Controls: We'd suggest aligning with NIST AI RMF principles.

We hope this information is helpful and look forward to discussing it further with you. Please let me know if you have questions in the meantime.

Sincerely,

Bob Ridgeway
America's Health Insurance Plans
Bridgeway@AHIP.org
501-333-2621

February 13, 2023

Superintendent Elizabeth Kelleher Dwyer
Chair, Big Data and Artificial Intelligence (H) Working Group
National Association of Insurance Commissioners
1100 Walnut Street, Suite 1500
Kansas City, MO 64105

Commissioner Doug Ommen
Co-Vice Chair, Big Data and Artificial Intelligence (H) Working Group
National Association of Insurance Commissioners
1100 Walnut Street, Suite 1500
Kansas City, MO 64105

Re: Big Data and Artificial Intelligence (H) Working Group Exposure Draft: Workstream #2 Model and Data Regulatory Questions

Superintendent Dwyer & Commissioner Ommen:

The American InsurTech Council (AITC) is an independent advocacy organization dedicated to advancing the public interest through the development of ethical, technology-driven innovation in insurance.

This letter responds to a request for comments to the Big Data and Artificial Intelligence (H) Working Group Exposure Draft: Workstream #2 Model and Data Regulatory Questions (the "Questionnaire"). We appreciate the opportunity to submit these comments.

AITC strongly supports the efforts of state insurance regulators and the National Association of Insurance Commissioners (NAIC) to develop appropriate regulatory frameworks and standards governing the use of artificial intelligence (AI), machine learning and predictive analytics (collectively, "AI") by insurance carriers and other licensed entities engaged in the business of insurance in the U.S.

We appreciate the considerable work and effort that has already taken place, and look forward to working with the Big Data and Artificial Intelligence (H) Working Group and the NAIC on the development of an appropriate regulatory framework concerning the use of AI in insurance.

AITC agrees that it is important for regulators to increase their understanding of how insurance carriers and other licenses are currently using AI. We believe that deeper familiarity and increased understanding of how AI is being used, as well as how it is <u>not</u> being used, are vital to the development of a balanced regulatory framework that protects consumers while ensuring that the benefits of AI are realized in the near, medium and long term.

AITC believes that a regulatory framework should be balanced and risk-based, marked by key principles, including:

1. Employs clear principles and expectations related to governance, testing and ongoing monitoring of AI.
2. Promotes ethical use of AI that addresses the following priorities for consumer protection:
    a. Consumer privacy
    b. Surveillance
    c. Transparency
    d. Bias
    e. Automation
3. Utilizes a risk-based approach to AI governance.
4. An insurer's governance and risk management framework should take into account how the company is utilizing AI and for what purposes, and the risk(s) posed by each specific use case.
5. Regulatory standards, disclosure requirements and regulatory oversight should be calibrated to the risk associated with a particular use case.
6. Highly confidential and proprietary intellectual property should be protected.
7. The framework must be durable, meaning that is capable of being adapted to new developments in digital technology as they occur.

We have a deep appreciation of the complexities associated with developing a governance framework and regulatory standards for insurer use of AI and other emerging technologies. We understand regulators' concerns about insurer use of AI, and the desire to increase understanding of how AI is currently being used. The use of questionnaires that focus on specific AI use cases can play an important part in improving regulator understanding.

Our comments regarding the Questionnaire are intended to further the dialogue about the most effective approach for regulators to obtain the information they need in a way that is as efficient a way as possible and respects vitally important intellectual property rights. The comments expressed below reflect questions about the particular approach represented here; not the goal or desired end result. At the end of this letter we recommend for consideration an approach that the NAIC has utilized successfully in the past to gather information about how technology is impacting the insurance industry and consumers that was used to develop a framework for regulatory oversight.

1. Our first comment relates to the intended scope of the Questionnaire, which states that it "contains questions that regulators can ask about <u>any models and data</u> used by insurance companies, whether that model or data is developed internally or obtained from external sources" (emphasis added). This statement is not clear and could be read to apply virtually every use case for AI that an insurance carrier might be using, including general business operations, HR, telecommunications, and more. Clarification of the intended scope would be helpful.
2. We recognize that a purpose of the Questionnaire is to facilitate regulators' study of companies' AI models and data. It is not clear, however, whether these questions are intended for use by states on a one time basis, an annual basis, or some other schedule. Given the highly detailed nature of many of the questions and the amount of time and effort that companies would be required to expend to prepare responses, clarification on this point would be helpful.
3. We have very significant concerns with requiring insurers to disclosure highly confidential and proprietary information, including the intellectual property of third party vendors, their contractual agreements with third party vendors, and other proprietary information. The Questionnaire does not state the underlying basis for states to request this information from third parties, or planned steps to guarantee strict confidentiality of the information provided. While regulators' desire for

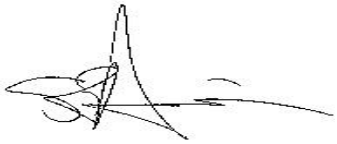
insight into the inner workings of models that companies are currently using is appreciated, mandatory disclosure of proprietary information by third parties raises legitimate legal and other considerations that should also be considered. We note that in other contexts, such as privacy and data security, the NAIC has taken the approach of placing the responsibility of third party compliance on the shoulders of the insurance carrier. We suggest that consideration be given to a similar approach in this instance.

4. Providing meaningful responses to the Questionnaire would require enormous expenditures of time, financial expense and opportunity cost. We question whether smaller and medium sized insurers possess the staffing that would be needed to comply. Similarly, many of the AI development firms are small businesses with very limited staffing. It is not difficult to see how those firms would be overwhelmed by having to produce multiple responses to the Questionnaire for multiple customers/insurers.
5. Even if insurers and their vendors were able to provide comprehensive responses to the Questionnaire, it is not clear how this would provide meaningful insight into company practice across all respondents. Insurance departments also have very limited resources and may lack the technical expertise to conduct a meaningful analysis. Utilizing third parties to review company responses raises an entirely different set of concerns involving exposure of highly confidential intellectual property.

As an alternative to the Questionnaire, AITC recommends considering an approach to improving their understanding of industry use of AI in the same or similar way that was taken several years ago when regulators sought to gain a better understanding of industry cybersecurity risk and more specifically, how those risks varied from company to company. That effort produced meaningful information that regulators used to fast track development of the NAIC's current approach to monitoring the effectiveness of carrier's cybersecurity risk management program. We believe that a similar approach could be utilized in this instance. We welcome the opportunity to discuss this in more detail with the Working Group at the appropriate time.

Thank you again for the opportunity to comment.

Respectfully Submitted,



Scott R. Harrison
Co-Founder

American Property Casualty Insurance Association
INSURING AMERICA apci.org

February 13, 2023

Tim Mullen
Miguel Romero
Big Data and Artificial Intelligence (H) Working Group
National Association of Insurance Commissioners

Re: Proposed Model and Data Regulatory Questions

Dear Mr. Mullen and Mr. Romero:

The American Property Casualty Insurance Association (APCIA) welcomes the opportunity to comment on the Big Data and Artificial Intelligence (H) Working Group's proposed Model and Data Regulatory Questions. APCIA is the primary national trade association for home, auto, and business insurers. APCIA promotes and protects the viability of private competition for the benefit of consumers and insurers, with a legacy dating back 150 years. APCIA members represent all sizes, structures, and regions—protecting families, communities, and businesses in the U.S. and across the globe.

Foundational Comments

We appreciate the careful and cooperative approach exemplified by circulating the draft for comment. We think there is merit for both regulators and regulated companies to work on and be aware of a relatively uniform list of questions from which regulators may select, depending on the circumstances. And it would be preferable if the final list of questions is considered and issued in connection with the model bulletin on insurers' use of AI being developed by the H Committee's Collaboration Forum.

The issues involved in this proposal raise new and complicated issues for regulators and companies, and we hope for an on-going dialogue as we start with a modest proposal and build from it based on what we learn through real world experience. One alternative to consider would be to begin with a principles-based set of guidance that would assure proportionality and cost-effective results. This would be the type of careful approach that the NAIC and state regulators have used on many issues, and it has helped produce the largest and best regulated insurance market in the world.

Scope, Detail, and Proportionality

It is critical that the questions reference and reflect legislated regulatory standards that govern the conduct of companies. And it is critical that the questions are scaled so as to fully implement the concept of proportionality.

As written, the document prematurely encompasses virtually all data and models for all insurance practices. Subjecting all of insurers' models and data to each of these questions would be exceedingly complex, especially since insurers might use models and data that are of less concern to regulators because those systems are operational in nature and only tangentially related, if at all, to consumers' ability to secure insurance or receive benefits. By stating that the proposal applies to "any" model, the document subjects even minor systems to burdensome groundwork and inquiry. The proposed questions should be limited in scope to predictive models and third-party data used in regulated insurance practices. Further, since the framework for inquiry of catastrophe models is already well defined, catastrophe models should be exempt from these questions.

The document's breadth encourages the provision of a vast universe of materials to regulators. Additional resources could be required to collate, analyze, and process the materials. Stated differently, due to the broad manner in which the document is styled, much regulatory activity could focus on simply parsing useful information.

The proposal could be improved with a greater focus on ensuring any regulatory questions are proportionate to the nature, scale, and complexity of the model or data's intended use. The proposed questions should be tailored to address the specific issues of primary concern to the regulators, such as what is the intent of the model, what processes are in place to ensure that the intent is actually adhered to, and who is the person at the company most knowledgeable about a particular issue. Proportionality is essential to maintain the most competitive and innovative insurance market. As recognized in the IAIS' report on FinTech developments in the insurance sector:

> In general, the principle of proportionality is well-established in the insurance sector, also with regards to AI. There are a range of AI use cases across the value chain, and not all present the same risks for consumers and insurers. As a result, the governance measures required to ensure ethical and reliable AI differ between use cases; they should be proportionate to the characteristics and impact of the specific application.

To ensure the proposed questions are used consistent with the principle of proportionality, the introduction of the document should explicitly state that, in determining which of these questions to ask an insurer, regulators should take a risk-based approach that is proportionate to the nature, scale, and complexity of the intended use.

The document should also clearly explain the intended applicability of the questions. For example, the proposal should clarify whether the questions are intended to be applicable to all lines of business and all business functions. To ensure the questions are risk based and cost effective, the scope of the questions should be limited to personal lines, admitted insurers, and models and data of greatest interest to regulators. Specifically, as stated above, the questions should be limited in scope to predictive models and third-party data used in regulated insurance practices. We believe this focus would be the best way to ensure these questions are taking a risk-based approach.

Furthermore, the questions should be limited to evaluating compliance with existing law. Some of the questions imply standards beyond existing law or seemingly create new legal requirements, such as the questions related to data privacy and notification of consumers. Where questions seek information that goes beyond what is required by state law, it is unclear what standard insurers are being held to when answering these questions, and it is unclear what the consequences would be if regulators determine an insurer did not comply with an undefined standard. Accordingly, it is critical to align these questions with obligations that exist in state law.

Definitions

We understand that other groups in the NAIC – particularly the H Committee's Collaboration Forum – are working on creating common definitions for terms such as "artificial intelligence" and "machine learning." **The definitions in this proposal should be consistent with the definitions that are being developed for other NAIC workstreams**.

AI, ML, and Model
With respect to the proposal, we are concerned with the proposed definitions of "artificial intelligence," "machine learning," and "model." The definitions and sources being utilized in the current draft are unclear and outdated. AI, as defined by Britannica, could be used in a variety of circumstances within an insurance company. The definitions of AI and machine learning must be carefully drafted to avoid application to general automated processes. Further, the proposal should clarify whether there are any distinctions between models or AI used with direct impact on insureds rather than those for other purposes like gaining operational efficiencies (e.g., screening models to fast track certain underwriting risks or claims). If the latter, this would expand model review from what is regulated (i.e., credit scoring) to all models, which would expand the scope of this proposal significantly.

The Working Group and Collaboration Forum should look to other sources, such as the National Institute of Standards and Technology, for more widely accepted definitions. Further, examples of artificial intelligence and machine learning, such as those provided in the AI/ML surveys conducted by the Working Group, would help companies respond to these questions.

For the definition of "model," the proposal should use the definition from Actuarial Standard of Practice No. 56:

> A simplified representation of relationships among real world variables, entities, or events using statistical, financial, economic, mathematical, non-quantitative, or scientific concepts and equations. A model consists of three components: an information input component, which delivers data and assumptions to the model; a processing component, which transforms input into output; and a results component, which translates the output into useful business information.

Bias
APCIA is concerned with the proposed definition of "bias." It is critical for the proposal to clearly state that the concept of "bias" is being defined and used in the sense of statistical bias.

The term should not be defined or used as though it is replacing the legislated standards of conduct, most importantly "unfair discrimination." State and federal anti-discrimination laws prohibit "unfair discrimination," which is a longstanding legal standard. We are concerned the broad definition of "bias" in this proposal could be misinterpreted to supplant anti-discrimination law and create a new legal standard for how insurers conduct their core business.

Beyond the definition of "bias," one question in the proposal asks insurers for explanations for the use of variables that have a connection to a protected class or socioeconomic status. However, reasonable minds may differ about whether this connection exists. This question should be removed from the proposal, but it could be a follow-up question if the regulator believes certain variables have this connection. Alternatively, the question should be limited to ask only whether the model uses protected class data, as defined by state statute. Using the term "socioeconomic" in this question would be inappropriate because the term is broad, vague, and undefined. In any event, insurers should not be required to anticipate which variables a regulator could believe have a connection to a protected class or socioeconomic status. Instead, the burden should be on the insurer to have a governance framework that aims to mitigate and prevent unfair discrimination.

Governance

The proposal's definition of "governance framework and controls" is extremely broad and vague, with little indication of what insurers must do to comply with the definition. We understand the H Committee's Collaboration Forum is in the process of developing a model bulletin that will include governance expectations around insurers' use of AI. Therefore, as stated above, the proposed list of questions should be issued in conjunction with the forthcoming bulletin on governance, rather than being issued independent of the bulletin.

Further, some of the questions, such as Question I(A)(5), imply that insurers should have a separate governance framework for each model. The proposal can be improved with examples of acceptable governance frameworks and clarification that insurers need not have a separate governance framework for each and every model.

We are also concerned that the definition of "governance framework and controls" incorporates transparency and disclosure requirements that go beyond state or federal law. Specifically, the definition incorporates notifying consumers of the data and information that is used for a model. While state and federal privacy laws often require notification for which types of customer personal information is collected, notification of a rating variable is often dictated separately from those laws, if at all. We are concerned the proposed definition creates an ambiguity about insurers' obligations to provide granular, rating-variable notification for every piece of data that comprises a model, notwithstanding the fact that type of notification is not codified in state law.

Data Questions

Many of the questions regarding data used by insurance companies could be interpreted to require exceedingly long and detailed answers due to ambiguity in the questions. Examples of what is an acceptable response could be helpful in resolving these potential ambiguities. For example, Question I(A)(2) asks insurers for "all data and information used in a model" and "any

additional use of the data." Responses to these questions could end up being hundreds of pages without further clarification regarding how companies can provide an acceptable answer.

Additionally, there are several questions regarding missing data (Questions I(C)(2); II(A)(2)(a)(vi); and II(C)(2)(b)). We are concerned the questions about missing data will be particularly burdensome and in some cases impossible to answer if third-party vendors are unwilling to share missing data. Therefore, the questions about missing data should be clarified by adding narrowing language such as "if any" or "if applicable."

Finally, Question II(A)(2)(a)(vi) asks insurers to discuss "how data outliers were handled." The proposal should clarify what is meant by "outliers" in this question.

Model Questions

In general, APCIA is concerned that the questions about insurers' use of models do not provide any guidance around or incorporate the concept of risk level of the model. As discussed above, the proposed questions should be used in a way that is proportionate to the nature, scale, and complexity of the model. Additionally, the questions asking insurers to describe model assumptions and outcomes are vague and should be clarified.

Further, several questions seek the identity and qualifications of particular modelers. Instead, these questions should seek the identity of the person most knowledgeable about a particular issue (e.g., model development or model monitoring). Requiring companies to provide an extensive list of each employee that worked as a modeler on a project or set of data would likely provide regulators with little useful information. Identifying the person most knowledgeable would be a more proportionate and risk-focused approach.

We are also concerned with the questions asking insurers to describe deviations from a model. Insurers could make deviations to re-calibrate a model or because they are not seeing the output expected. We do not believe that the questions about deviations would provide useful information to regulators, so these questions should be deleted.

Third-Party Vendors

We believe that insurers typically make every effort to perform due diligence on vendors prior to the execution of a contract. However, many of the proposed questions would require a great deal of information from third-party vendors that insurers do not control. For insurers to provide the degree of detail needed from third-party vendors would be unwieldy and could breach restrictions on the disclosure of proprietary information. For example, the contractual language between insurers and their vendors is highly proprietary, and much of the third party's data and how their models work is also proprietary. We recognize this is a threshold concern that regulators are trying to solve for, and we look forward to working with the Working Group to identify a balanced and practical solution that accounts for the legal realties and regulator needs. For instance, on a going-forward basis, insurers may be able to contractually agree to certain expectations with third parties or possibly have third parties attest to certain standards.

Confidentiality

Much of the information insurers would be expected to provide in response to the proposed questions could be considered highly proprietary. Therefore, regulators should ensure that the confidentiality of insurer proprietary information disclosed as a part of the response to these questions remains confidential under state law. The introduction to the proposed questions should explicitly state that the questions will require insurers to turn over information that is proprietary and contains trade secrets, and that regulators should ensure that insurers would only be asked to turn over confidential information if the confidentiality of the answers will remain protected under state law.

Conclusion

We look forward to continuing to work with the Working Group to refine the scope of the proposal to predictive models and third-party data used in regulated insurance practices, while better focusing the questions to what data and models are of greatest interest to regulators and what questions are to be asked and answered in connection with particular regulatory concerns such as market conduct examinations. We also request that the definitions be refined, that all questions be anchored to legislated regulatory standards in place in the state, that the principle of proportionality be fully applied, and that all answers be confidential.

Sincerely,

Matthew Vece
Director, Financial & Tax Counsel

Dave Snyder
Vice President, International & Counsel

Comments of the Center for Economic Justice

To the NAIC Big Data and AI Working Group

Regarding Draft "Model and Data Regulatory Questions"

February 13, 2022

The Center for Economic Justice appreciates the working group's efforts on consumer protection related to insurers' use of big data and artificial intelligence ("AI"). We appreciate the opportunity to comment on the December 2, 2022 exposure draft of "Model and Data Regulatory Questions" and offer the following comments.

Lack of Context

The preface to the document states:

> *This document contains questions that regulators can ask about any models and data used by insurance companies, whether that model or data is developed internally or obtained from external sources.*

However, nowhere in the document is any context or guidelines for why and when to pose these questions to insurers or third party vendors of data and algorithms used by insurers. Rather, there is a general direction that "categorizations are also intended to aid different users in the selection of appropriate questions given the intent of the study. The examiner should evaluate regulatory purpose and use or modify questions for such purpose."

In what circumstances would a regulator ask particular questions and why? What events would prompt these questions? What are the expected outcomes of deploying these questions?

The preface also states regulators should utilize the guidance in the Market Regulation Handbook ("MRH") and targeted questions adopted by other committee groups. What relevant guidance does the MRH provide on these issues? Who are the other committee groups referenced and why aren't those questions included here? How will a regulator use the guidance in the last sentence of this paragraph?

Responsibility of Regulators – Enforce Existing Laws and Regulations

The document suggests that regulators have a responsibility to dialogue with and understand the development of insurers' big data and AI models or that a market conduct examiner (or rate analyst) will employ these questions as part of some market conduct examination or rate filing review. CEJ offers a different perspective.

We believe regulators' responsibility – in the context of insurers' use of big data and AI – including the following to ensure insurers' use of big data and AI:

- Does not unfairly discriminate on the basis of actuarial fairness to ensure that similarly situated consumers are treated in a similar fashion whether for marketing, pricing, claims settlement or anti-fraud;
- Does not directly or indirectly discriminate on the basis of protected class status;
- Does not violate statutory and regulatory requirements of insurers other than unfair discrimination whether for marketing, pricing, claims settlement or anti-fraud;
- Honors consumers' privacy and digital rights, including use of consumer personal data for legitimate purposes disclosed to the consumer;
- Protects consumers' personal data;
- Does not promote digital manipulation and dark patterns; and
- Does not promote third-party vendors as means of collusion or collective decision-making by insurers

While some regulatory responsibilities involve routine questions to insurers regarding data protection, cybersecurity, model governance and risk management, issues of unfair discrimination should start with regulators' collection and analysis of granular consumer market outcomes to assess whether there is an indication of unfair discrimination on the basis of protected class characteristics or actuarial fairness. If there is such an indication, then the questions to insurers should be tailored to identify the source of such potential unfair bias – assuming the analysis that detected the unfair or unintentional bias has not already revealed the source of such unfair discrimination.

Our view is that regulators should not seek to understand insurers' development of algorithms or models absent some indication of a problem and absent a concrete need for examining the development of the model to address that problem.

First, regulators simply do not have the resources – quantify or quality – to ask these questions of all insurers and evaluate the responses. There is a reason that insurers always object to granular data reporting and volunteer to talk to regulators to explain what they and their algorithms are doing – this approach requires regulator resources exponentially greater than currently exist and, consequently, guarantees a lack of regulatory oversight for the majority of insurers.

Second, it is a poor allocation of regulatory resources to ask these questions (regarding unfair discrimination) absent some indication of a problem. A risk-based regulatory approach requires some analysis and assessment of specific risks.

Third, regulatory efficiency and effectiveness require regulators' own use of big data and AI to assess insurers' risk of unfair discrimination and other violations. The application of predictive analytics and AI for such risk assessment requires regulatory collection of data with sufficient volume and granularity. Consequently, in addition to reporting of granular data on consumer market outcomes, regulators should require insurers to report data on big data and AI governance in a manner that permits application of regulatory analytics and AI. Stated differently, regulators should be setting out detailed reporting guidelines for insurers' big data and AI governance, as opposed to asking broad and open-ended questions to insurers. The former permits regulators to meaningfully and efficiently analysis insurers' responses, while the latter runs up quickly against regulatory resource constraints.

Based on the above, we suggest that regulators develop routine granular data reporting guidelines for both consumer market outcomes and insurers' big data and AI governance to create a meaningful opportunity for regulatory oversight through use of regulatory analytics and AI. We suggest that the CO SB 169 draft AI model governance is a good reference and starting point for data reporting related to oversight of insurers' data and AI model governance.

Third Party Vendors of Data and Algorithms

The exposure draft offers questions about "insurers or 3rd party about the 3rd party model." As we have pointed out in the past, states and regulators created the regulated entity known as advisory organizations to permit insurers to share data with a third party providing collective decision-making guidance to avoid anti-trust violations and to ensure that insurers and state insurance regulators comply with the limited anti-trust exemption from federal laws for insurance. While some third-party vendors of data and algorithms have licensed themselves as advisory organization – and subjected themselves to regulatory oversight – most new third party vendors of data and algorithms for insurance have not.

The draft seems to assume that regulators have access to such third party vendors through insurers – by requiring insurers to obtain third party vendor information prior to regulatory approval of, say, a rate filing. However, this approach is, at best, cumbersome, and fails to give regulators access to third party vendors' algorithms used for purposes other than pricing. This indirect approach also fails to provide regulators with information to assess the third party vendors' role in collective decision-making and potential anti-competitive activities.

Based on the above, we suggest regulators develop a set of questions specifically for third party vendors aimed at potential antitrust violations, as well as for unfair discrimination. Such questions might include:

- Provide a list of your insurance industry clients by product
- Do the data or algorithms you provide to insurance industry clients vary by client? If so, provide a list of differences by client and product.
- What are your procedures for avoiding antitrust violations?

While not part of "Questions," it is clear that NAIC models regarding advisory organizations need updating. We suggest the NAIC develop a stand-alone model law or regulation regarding advisory organizations that addresses the current gaps in regulatory oversight of third party vendors of data and algorithms.

Regulatory Review of Outcomes, Not Process

The detailed questions regarding the development of an insurer's model suggests a regulatory review of how an insurer developed the particular model. While there may be regulatory purpose for such inquiry at some point to track the source of unfairly discriminatory outcomes, we suggest such inquiry is unlikely to be needed and, again, suggest regulators focus on analyzing granular data on consumer market outcomes, insurer model and AI governance and third party vendors' role in collective decision-making for insurers. A sound model governance framework will include testing for unfair discrimination on both the actuarial and protected class bases. If such testing indicates unfair discrimination, it will also (through multi-variate analysis) indicate the source of the unfair bias.

Stated differently, a regulator should be looking at the outcomes of the use of the data or models for an explanation of the source of unfair bias and not examining the detailed development of the model. The questions about model development assume a level of expertise in data science that is rarely present in state insurance departments. If new regulatory resources and training are needed in an era of insurers' use of big data and AI, those resources should be directed to analysis of outcomes and application of analytics and AI by regulators, not to asking regulators to become experts in – and then review – development of insurers' AI models. The former is achievable, while the latter is not.

Key Information Insurers Should Report on a Routine Basis

The exposure draft includes important data points needed for regulatory oversight of insurers' use of big data and AI, but this information should be reported by insurers on a routine basis is a manner amenable to regulatory analysis using automated tools. Instead of open-ended questions about model purposes and data inputs asked on an ad-hoc basis, we suggest regulators require insurers to initial report and then update at least every six months a data report that includes:

- Name of Model or Algorithm
- Date First Deployed
- Date Current Version Deployed
- Current Version Number
- Purpose(s) of Algorithm (Marketing, Underwriting, Pricing, Claims Settlement, Antifraud, Risk Mitigation Partnership, Other)
- Data Inputs, Sources of Data Inputs (Consumer, Insurer, Third Party, Other) and whether Data are FCRA-compliant (subject to FCRA requirements).
- Unfair Discrimination Test Results
- Actions Taken to Address Unfair Discrimination Test Results
- Consumer Complaints Arising from Use of the Model (since last report)
- Actions Taken with Respect to the Model to Address Consumer Complaints
- Results of Tests to Ensure Model is Performing as Intended
- Actions Taken in Response to Testing of Actual Model Performance

Definition of Bias

We suggest the generic definition of bias included in the draft is unhelpful for purposes of regulatory oversight of insurers' use of big data and AI and reflects the confusion over the regulators' responsibility – not oversight of model development but compliance of model performance with regulatory requirements.

The definition of bias should specifically reference the unfair bias as used in insurance – unfair bias on either the actuarial or protected class bases. See above.

Definition of Artificial Intelligence

The draft definition of AI conflates the broad definition of AI with the Data Mining or Machine Learning (ML) subset of AI. The first sentence provides the broad definition of AI and it is too broad for the purposes of the questions. Automation employed by insurers for over 30 years – and which are not the source of concern regarding insurers' use of big data and AI – would be included in the first sentence definition, including algorithms to calculate a premium

based on a filed rating plan. While some AI applications involve pattern recognition and model alternation without human involvement, most of insurer AI applications (using the first sentence broad definition) involve a data mining exercise that is then memorialized into a fixed (not ML algorithm), such as credit-based insurance scores or catastrophe models.

Definition of Model

It is unclear what purpose is served by this definition or how it should be interpreted. In what sense is an insurers' model "a simplified description of a real world system?" It would seem that, say, a credit-scoring model is a real world system that can be completely described.

Question about Model Transparency

We suggest that an essential part of model governance as well as regulatory oversight is the ability of the insurer to identify and explain the cause of particular outcomes for consumers. Consequently, we suggest a question or questions regarding the insurers' and third parties' ability to do so as part of model governance and development

NATIONAL ALLIANCE OF LIFE COMPANIES
An Association of Life and Health Insurance Companies

February 13, 2023

Superintendent Elizabeth Kelleher Dwyer
Chair, Big Data and Artificial Intelligence (H) Working Group
National Association of Insurance Commissioners
1100 Walnut Street, Suite 1500
Kansas City, MO 64105

Commissioner Doug Ommen
Co-Vice Chair, Big Data and Artificial Intelligence (H) Working Group
National Association of Insurance Commissioners
1100 Walnut Street, Suite 1500
Kansas City, MO 64105

Re: Big Data and Artificial Intelligence (H) Working Group Exposure Draft: Workstream #2 Model and Data Regulatory Questions

Superintendent Dwyer:

I am the Executive Director of the National Alliance of Life Companies (the NALC), a trade group of more than fifty life insurance companies and associates that represents the interests of small and mid-sized insurers and their policyholders.

This letter responds to the Working Group's request for comments to the Big Data and Artificial Intelligence (H) Working Group Exposure Draft: Workstream #2 Model and Data Regulatory Questions (the "Questionnaire").

The NALC appreciates the significant effort that state insurance regulators and the NAIC are making to develop regulatory frameworks suitable for the use of artificial intelligence (AI), machine learning and predictive analytics. AI and other forms of digital innovation will create significant opportunities for companies committing themselves to ethical use of this technology. This is particularly true for many smaller and medium sized companies that will find it easier to expand into new products and markets. The greatest potential beneficiaries, however, are insurance consumers who stand to benefit greatly from significant improvements in service, increased availability of coverage, pricing, convenience, and eventually, truly innovative products that will enable individuals to manage their key risks in new ways.

The NALC recognizes that regulators have a legitimate interest in ensuring that insurance carriers are utilizing AI in accordance with the law. We agree with the NAIC statement of *Principles on Artificial Intelligence* that use of AI "should respect … insurance laws and regulations, such as those relating to trade practices, unfair discrimination, access to insurance, underwriting, privacy, consumer protection and eligibility practices, ratemaking standards, advertising decisions, claims practices, and solvency." We believe that development of standards and requirements governing the use of AI, predictive analytics and other digital technologies can be

P.O. Box 50053 · Sarasota, FL 34232 · Phone 941.330.2221

achieved utilizing the same frameworks and principles that have guided the development of state insurance regulation for nearly 150 years.

In the case of AI, we believe that the best approach to regulatory oversight is to apply a risk-based approach that identifies clear principles and expectations related to governance, testing and ongoing monitoring of AI, whether the technology is developed in-house or sourced from third party providers. We believe that ultimate responsibility for compliance with applicable laws and standards should rest with the end user, and that end users' risk management of their use of AI should be robust, including how AI is being used in specific uses cases, the data that is being utilized, and regular testing and monitoring.

With respect to the draft Questionnaire, we note the following areas of significant concern:

1. The scope is unclear. The Questionnaire states that it "contains questions that regulators can ask about <u>any models and data</u> used by insurance companies, whether that model or data is developed internally or obtained from external sources" (emphasis added). A reasonable interpretation is that the Questionnaire would apply to every use case for AI that an insurance carrier might be using, including general business operations, HR, telecommunications, and more. If that interpretation is correct, the scope is extremely overbroad and should be narrowed significantly. Clarification on this point is needed.

2. The Questionnaire utilizes a "one size fits all approach" to AI that does not reflect how AI is being utilized in reality. There are innumerable use cases for AI. Each use case relates to a specific task or business process. How AI might be employed in sales and marketing, for example, would likely differ greatly from other applications. Moreover, use cases for AI in a life insurance company would differ greatly from those applicable to other lines of business. General questions such as those appearing in the Questionnaire are unlikely to provide meaningful information to regulators. We believe that a better approach would be to direct a limited number of questions that focus on a specific use case.

3. Related to #2 above, we would urge regulators to utilize a risk-based approach to their inquiries into insurer use of AI. Many AI use cases pose no or only minimal risk of harm to a consumer, while others pose a greater degree of risk. Given the significant time and effort required to respond to regulator inquiries, as well as the time needed by regulators to review and analyze company responses, these types of questions should focus on AI use cases that pose the greatest risk to consumers.

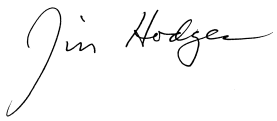
4. Requiring companies to disclose highly confidential information including intellectual property of third-party providers is a very serious concern. The Questionnaire provides no guidance regarding the underlying basis for states to request this information, or the measures that will be taken to guarantee strict confidentiality of the information provided. Clarification would be helpful to enable regulated respondents and third parties to understand how this information will be protected from unintended or improper disclosure, as well as how intellectual property rights will be protected from disclosure to third parties.

5. Finally, we note that smaller and medium sized companies have significantly limited resources that would be available to respond to these types of regulator inquiries. We would note as well that many providers of AI technology are themselves typically small companies with very limited staffs. We would urge the Working Group to consider an alternative, proportionate approach to gathering information about insurer

use of AI that balances regulators' need for information about specific use cases against the significant cost and burden on companies that are required to respond.

Thank you again for the opportunity to address our comments.

Sincerely,



Jim Hodges
Executive Director
NALC

NAMIC®
NATIONAL ASSOCIATION OF MUTUAL INSURANCE COMPANIES

317.875.5250 | [F] 317.879.8408
3601 Vincennes Road, Indianapolis, Indiana 46268

202.628.1558 | [F] 202.628.1601
20 F Street N.W., Suite 510 | Washington, D.C. 20001

February 13, 2023

NAIC Big Data and Artificial Intelligence Working Group
Superintendent Elizabeth Kelleher Dwyer, Chair
c/o
Tim Mullen, NAIC Director of Market Regulation
Via email tmullen@naic.org

Re: NAMIC Comments on the Draft NAIC Model and Data Regulatory Questions

Dear Superintendent Dwyer, Co-Chairs, Members of the Working Group:

On behalf of the National Association of Mutual Insurance Companies[1], we would like to thank the NAIC Big Data and Artificial Intelligence Working Group for requesting comments on the Model and Data Regulatory Questions that have been exposed since early December of last year. We appreciate the ability of industry to be able to provide material and technical comments to this important workstream dealing with advanced issues of potential market conduct inquiries regarding artificial intelligence and machine learning usage as well as third party modeling concerns. Through meaningful discussions amongst stakeholders, we hope that reasonable and rational consensus can be achieved that enhances the regulatory response to various concerns and focuses on those inquiries that will most likely produce desired results.

From the outset, NAMIC clearly understands the need for regulators to obtain information that will reduce or eliminate concerns especially regarding compliance in artificial intelligence and/or machine learning usage. We support and wholeheartedly want the consuming public to be protected from material and substantive harm that might cause them to be treated unfairly under the U.S. system of laws and regulations. For the most part, we support the robust regulatory compliance required to respond to any regulatory concern including even routine examinations and the industry willingly and voluntarily provides multitudes of data on a daily basis for those concerns. However, once all stakeholders embark on this road to provide a fuller understanding AI/ML usage, the guardrails, and assumptions which underly the path forward should be clear and unassailable to provide the necessary confidence in the process and resulting findings as well as further action taken.

[1] The National Association of Mutual Insurance Companies consists of more than 1,500 member companies, including seven of the top 10 property/casualty insurers in the United States. The association supports local and regional mutual insurance companies on main streets across America as well as many of the country's largest national insurers. NAMIC member companies write $357 billion in annual premiums and represent 69 percent of homeowners, 56 percent of automobile, and 31 percent of the business insurance markets. Through its advocacy programs NAMIC promotes public policy solutions that benefit member companies and the policyholders they serve and fosters greater understanding and recognition of the unique alignment of interests between management and policyholders of mutual companies.

Consequently, NAMIC would provide these additional general, substantive, and technical thoughts to the exposure.

Overall

Grounded in state law?

It is axiomatic that the proposed usage of these questions should factor in and mirror existing state law and its accompanying regulations and potentially bulletins or other directives from state insurance departments. However, additionally, all accompanying authority and usage including mentioned regulations, bulletins, directives, must generally flow from existing laws. It is only through these existing laws and other authority that the insurance industry can prospectively plan for compliance in each and every endeavor that ensues from their operations and state regulators can function in their role accordingly. Stability in existing law or an ability to feasibly comply with reasonable compliance frameworks allows for lack of significant disruption which can significantly affect regulators, consumers, and the insurance industry in a dramatic fashion if not provided for. Therefore, it is only through market conduct examination standards grounded in state law can the industry be determined to be in compliance or non-compliance therewith in a fair and orderly process of review.

NAMIC continues to be concerned about the usage of terminology that is not clearly and adequately defined in state insurance codes. For instance, "bias" can mean many different things to many different people and if we are not on the same page on this critical term, we can have a myriad of market conduct examination findings that will reveal an inconsistent and misunderstanding of the legal environment in which insurers must operate. Bias as mentioned in the questions is defined as "an effect that deprives a statistical result of representativeness by systematically distorting it, as distinct from a random error, which may distort on any one occasion but balances out on the average." Do the authors mean they are saying that random error balances out on average or that bias balances out on average? If they are saying that random error balances out on average, then we would suggest omitting a comma to make that clear. However, the concerns surpass merely a comma usage, as if there is not consistency across the states on this very definition, this will cause concern about symmetry in the regulatory structure itself and reporting of violations in RIRS and other market analysis tools.

Additionally, the NAIC AI Principles are continually referred to in the questions, however, these self-described aspirational goals that do not nor were intended to create the force of law by its creators, is unfortunately now being relied upon as authority. One question refers to "[p]rovide a rational explanation for any data and information that could be related to any protected class or socioeconomic status." The wording of this question is vague. Are the authors asking for a rational explanation on how each data element is related to loss or something else? How does a company identify data that "could be related to any protected class"? On the NAIC AI Principles, the first principle has been called out as a concern on how the industry can actually adhere to it while continuing to follow the law and do risk-based pricing. Risk-based pricing was acknowledged in the principles as a foundation of insurance and yet it appears the questions diverge from that time-tested and actuarially sound understanding.

Consequently, it is with trepidation that we are concerned that such wide-ranging and significant discussion can somehow be adopted by a model bulletin across the states. These principles need most likely to have the transparency and rigor of the legislative process to become in fact regulatory law and eventually market conduct standards.

Redundancy with Financial Examinations?
Additionally, NAMIC is concerned with the apparent redundancy created by these questions that might force insurers to not only have to respond to them in a financial examination but then must repeat the process in a market conduct examination. As discussed through the years, NAMIC supports the least invasive exam or analysis from which the regulator might complete their tasks. Along a continuum of compliance, inquiries may be more detailed and invasive to quell additional concerns. This project does not necessary achieve such deference. Further, issues such as privacy and information security questions would be an example where there is a duplicity of effort and will be basically handled on the financial exam. It would appear that financial and market conduct examiners should potentially spend more time internally discussing their coordination before submitting these issues to the industry they regulate.

It might additionally be helpful to understand if this is a manual that must be completed in each and every examination or there is sufficient flexibility built into this document that while it may be used as a tool for regulators it should not necessarily be utilized in each exam and parts thereof only to be determined in the discretion of the regulator. There additionally are many repetitive questions that in turn should be clarified as not necessary in every instance.

Broad scope necessary?
The overall scheme of the questions tends to be extremely broad in scope and causes the query– is this all necessary without a more invasive concern. If these benchmarks are used to begin an exam, they should focus on a few base-level concerns and move inward from that point. These requests will result in exponential amounts of data being provided initially to be compliant, yet an exceedingly small amount of the data will most likely be needed for the intended review. This causes concern that state regulatory bodies will be inundated with work papers that cannot be reviewed under any system of thoroughness or completeness. This in turn causes states to rely more heavily on outside vendors to in fact assist in the review of data that has been primarily designed and authorized for state regulators to discharge. A great deal of burden in turn will be placed upon industry to comply timely to these requests necessitating large expenditures of human capital and resources that could more readily be focused on consumer attention and response. Additionally, these requests cause confidential and proprietary information to be exposed possibly for unwarranted needs that subject the same to cyber risks, confidentiality protection gaps, and release to the public causing immeasurable harm to companies as they strive to compete in a very aggressive environment as demanded by the consuming public.

Third-party vendor oversight?
A major concern is the need to follow the NAIC Governance Framework, particularly given there is no definition on fairness as well as no generally accepted way to measure proxy discrimination and how these concepts even apply to the work at hand.

The additional requirements for third party models and data might make it challenging to use some third-party models. This could impact the use of tools such as voice or image recognition as individual insurers do not always have access to the data used in training the models. Some of the information is not easily available to answer the questions and it would take significant time to extract it from current documentation. It seems likely that these questions will potentially create a framework that results in a lot of overhead for models that have been used for decades.

It is very hard to assess if a model is truly biased or not given that we do not have the true outcomes. There are ways we assess models to ensure that they perform well and provide business value, but there is not a definitive test to say a model is biased or not given that we cannot distinguish well between variability and bias. Also given that no specific metric is defined, you can use the data to indicate there is one type of bias, but it really indicates that the data is not looked at a granular enough level. (Simpson's Paradox).

Further Substantive and Technical Thoughts

I.A.2 (Data Inputs)

Clarification is needed on how 'Information' differs from 'Data,' possibly deleting the former to avoid confusion if it is in fact redundant. We recommend modifying the first sentence to "...used as input to the model..." so it is clear that requests do not seek data used to train or develop models.

Providing "any additional use of the data" is outside the scope one would assume for an inquiry about a particular model. For example, the use of common data elements, such as *Customer ID*, would result in a significant number of uses and an inordinate burden to insurers in documenting a response. We suggest the deletion of the entire second sentence.

I.C.1 (Overview of the Data)

When requesting the sources of third-party data, it should be a sufficient response to provide the identity of the third party from which the insurer acquired the data. The ultimate source of the data may be proprietary and not known to the insurer.

Further, a query requests "[a] list of all data and information purchased?" That language seems especially overbroad since not all data and information (seemingly limitless there) is eventually incorporated into any model usage.

I.C.3 (Governance)

Insurers often do not have access to the written data governance frameworks of third parties, so it would be difficult to respond to a request for the same during an examination. We support modifying the request by inserting "If available" to the beginning of the sentence.

I.C.4 (Consumer Protection and Access)

Likewise, this provision is overbroad and goes well beyond statutory requirements anywhere to date. This particularly should be subject to legislative action, not regulatory provisions. For instance, should applicants, customers and claimants be made

aware of all data collected and used? What if the data related to a fraud investigation or a felony investigation. Should the applicants, customers, and claimants be made aware of data that is not part of their specific portfolio? Aren't there privacy issues of concern? Should data elements from public sources be included in this at all (MVRs, bankruptcies, etc.)? Not only is the applicant, customer, and claimant already aware of these but the public generally is as well. NOTE- this approach is likely to conflict with several existing laws (FCRA, NCOIL credit models in over thirty states, etc.).

I.C.5 (Third Party Contract)

Since many terms of the third-party contracts are trade secret or confidential, what protection will the regulator provide in this regard? Insurers cannot be put in a predicament of violating such contracts. Presumably, a regulator interested in retaining innovation and competition would not want such terms known publicly or shared competitively as it may even create antitrust issues. We believe existing conversations over the filings enable the desired transparency here.

II.A.1.c (Overview of the Model and Business Purpose)

We suggest clarification to allow identifying roles, where appropriate, as opposed to individual names, when asked "who at your company inputs the data." For example, if many underwriters are inputting data into a model, it would be preferable to be able to respond by stating that *Underwriters* are doing so instead of naming the individual underwriters.

II.A.2.a (Data Inputs)

Insurers often do not have access to many of the items requested in this section, due to third party claims of proprietary or confidential information. We support modifying the request by inserting "If available" in each of the requests within this section.

When identifying "unique technology" it is unclear which technologies would be responsive to this request. The technologies given as examples are not ones that we would consider to be 'unique.' We suggest either the deletion of this second bullet point altogether, or the inclusion of clarifying language that helps to define what technologies are considered 'unique.'

We recommend a risk-based approach in requesting the information contained in this section. Insurers that scale their model risk management activities to the level of risk each model presents will not have some of these elements for all of the models in their inventory. We support modifying the request by inserting "If available" in each of the requests within this section.

II.A.2.a iv- ("...any data and information that could be related to any protected class or socioeconomic status"

This data point appears to be broad and vague. "Could be related" fails all drafting requirements for assuring certainty of what is required. That will certainly trigger a guessing game about what the regulator thinks "could be related" and is clearly not in established statutory or regulatory standards. "Any" "socioeconomic status"? There is doubt that they really want documentation across the entire socioeconomic spectrum. In addition, how is that to be defined?

II.A.5 (Consumer Protection and Access)
This seems duplicative of the earlier consumer access points.

II.B.3 (3rd Party Contract)
See earlier comment on the protection of contracts from government impairment and loss of trade secrets.

II.C.1 (Overview of Data)
We recommend a risk-based approach in requesting the information contained in this section. Insurers that scale their model risk management activities to the level of risk each model presents will not have some of these elements for all of the models in their inventory. We support modifying the request by inserting "If available" in each of the requests within this section.

When identifying "unique technology" it is unclear which technologies would be responsive to this request. The technologies given as examples are not ones that we would consider to be 'unique.' We suggest either the deletion of this second bullet point altogether, or the inclusion of clarifying language that helps to define what technologies are considered 'unique.'

Insurers often do not have knowledge about the original sources of third-party data or how the data was collected. Among other reasons, this is often due to third party claims of proprietary or confidential information. We support modifying the request by inserting "If available" at the beginning of II.C.1.a.iii.

II.C.4.a (Governance)
Insurers often do not have access to the written data governance frameworks of third parties, so it would be difficult to respond to a request for the same during an examination. We support modifying the request by inserting "If available" to the beginning of the sentence.

II. C.4.a.ii
Note the use of mandate to reduce "biased" data. The definition of "bias" actually creates greater confusion as it is not limited to statistical bias. We can certainly speak to resolving inaccurate data and statistical bias. But going beyond that (as the definition enables) seems to be going into a new standard that is not in the laws or regulations and is likely to conflict with existing statutory standards and definitions.

III. "Definitions"

Bullet Point 1: Fairness and Ethics Considerations:
In terms of the definitions, again, it seems it will be void for vagueness and ambiguity even as it relates to the "fairness and ethics considerations." As an aside, there is a longstanding well-established distinction between what is lawful and what is ethical. I am concerned that this blurs that distinction. For instance, we are to avoid harmful "unintended consequences".

Then it includes as "unintended consequences" "unfair or proxy discrimination." But unfair discrimination, as defined in existing statutes, and proxy discrimination, as defined in case law, is not "unintended." Intent must be shown or apparent for those to actually occur. This continues to show the conflicting dynamic of statutory law and aspirational considerations that make compliance suspect and basically an unfair playing field for insurance companies.

Bullet Point 2: Accountability for Data Algorithms' Compliance with Laws

The same holds true for the undefined "unintended impact" which is another new term without definition. This provides what we believe is the unintended insertion of the NAIC Principles into this process as an authority which it is not.

The terms "third-party model" and "third-party data" are not defined in the paper as well.
Insurance companies frequently do not have access to the data or algorithms underlying a third-party model due to the third parties wanting to keep their work confidential

The questions ask for all modelers involved in creating a model to be identified and for their qualifications to be listed. We do not feel the identification of the entire team is necessary. We believe that providing one point of contact for a model and to providing a summary of the qualifications of the modeling team is sufficient.

In Summary

We close by again thanking the Working Group for allowing NAMIC to submit comments to engage on this extremely important and thought-provoking exercise of ascertaining pertinent and relevant queries when it comes to AI/ML market conduct subject-matter examinations. We merely point out some of the concerns and inconsistencies as there are issues regarding the ramifications of enforcement of potential alleged standards that do not provide sufficient legal and compliance support for taking adverse action against insurance companies for their alleged non-compliance of these aspects yet to be determined. The ramifications for industry are enormous as the examination results can not only foster additional litigation and reputational risk, but distinct harm to operations that can have longstanding impact and reverberations. We are certain that was not the intention of this first draft, and we remain engaged and wish to labor with the working group to arrive at resolutions that facilitate a stable and functioning regulator-industry relationship.

Sincerely,

Andrew Pauley, CPCU, WCP
Public Policy Counsel
National Association of Mutual Insurance Companies (NAMIC)