NAIC NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

04/05/24

THIRD-PARTY DATA AND MODELS (H) TASK FORCE
2024 Charges and Work Plan

2024 Adopted Charges

The following charges were adopted by Plenary at the 2023 Fall National Meeting:

1. The **Third-Party Data and Models (H) Task Force** will:
   A. Develop and propose a framework for the regulatory oversight of third-party data and predictive models.
   B. Monitor and report on state, federal, and international activities related to governmental oversight and regulation of third-party data and model vendors and their products and services. Provide recommendations to the Innovation, Cybersecurity, and Technology (H) Committee regarding responses to such activities.

Background for the Work Plan

At the 2023 Fall National Meeting, the NAIC adopted the **NAIC Model Bulletin: Use of Artificial intelligence systems by insurers.** The bulletin explains the regulators' expectations for governance around the development, acquisition, and use of certain AI technologies and advises insurers "of the type of information and documentation that the Department may request during an investigation or examination of any Insurer regarding its use of such technologies and AI Systems." Third-party sections of the bulletin are included in this document as Attachment A.

This bulletin lists and explains the applicable current laws and regulations that underlay the Bulletin and point to the NAIC's 2020 Principles[1] of Artificial Intelligence as an appropriate source of guidance for Insurers as they develop and use AI systems. Under these current laws, there is a framework around the regulation of third-party data and models.

The goal of this Task Force is to develop and propose an optimal regulatory framework for the regulatory oversight of third-party data and predictive models. The proposed regulatory framework may require new or modification of adopted model laws or regulations in 2025.

Throughout the year, the Third-Party Data and Models (H) Task Force will coordinate with other Innovation, Cybersecurity, and Technology (H) Committee activities and forums and place emphasis on transparency during the process.

[1] The principles emphasize the importance of the fairness and ethical use of AI; accountability; compliance with state laws and regulations; transparency; and a safe, secure, fair, and robust system.

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2024 Work Plan

In 2024, the focus for the Task Force will be on research to determine the framework for regulatory oversight of third-party data and predictive models, including those utilizing artificial intelligence. The framework will be clear that insurers are ultimately responsible for ensuring that insurance laws and regulations continue to be complied with while using data and models from third-party vendors.

Project Steps

2024: Explore and decide on a general concept for a framework for regulatory oversight of third-party data and models, including those utilizing artificial intelligence.

A. Evaluate existing frameworks and discuss whether existing frameworks might be useable for the regulation of third-party data and models.

- What are the current issues that insurance departments have regulating insurers that use third-party data and models in rating, underwriting, marketing, and handling claims?
- Is a framework scalable?
- Would regulators have the bandwidth?
- Does the existing framework apply to any particular line of business or company use?
- What are the reasons that third-party vendors are reluctant to get licensed as advisory or rating organizations?
- Determine how third-party vendors/models are being utilized and consider categorizing models by type [e.g., claims handling models, rate models (by hazard/peril, auto models), and underwriting models]. Consider where regulators are already evaluating models.

B. Discuss goals for a future third-party framework.

- What is the appropriate level, standard, or minimum threshold an insurer should be held to when using third-party data, models, or AI?
- What is the appropriate level of regulation for AI risks that result from using third parties?
- Should licensing, certification, SOC-type reports, third-party warranties in contracts be used?
- Should the framework be the same for all lines of business and company uses/insurance practices or be proportionate to the potential for the greatest impact on consumers?

- How do we ensure the framework does not unnecessarily discourage innovation?
- What should be the result when an insurer cannot get contractual terms or information they need from a third-party vendor?
- Can the framework include a mechanism for the review and approval of models prior to use by insurers?
- Is the framework sufficiently flexible to enable adaption over time without necessarily requiring revising or amending the framework.
- Is the regulatory oversight framework sufficiently commensurate to risk?

2025: Build the third-party regulatory framework.

2024 Meeting Plans

- **March-Sept.:** Invite speakers to present frameworks currently used (FL Hurricane Commission, RBC, Rate/Underwriting regulatory reviews) and views from multiple perspectives (e.g., international regulators, other industries, consultants and lawyers working on the implementation and governance surrounding the use of third-party data and models, third-party vendors, consumers). Throughout the months, discuss goals for the third-party regulatory framework and aspects of existing frameworks that should be discussed or considered.
- **October-November**: Discuss potential frameworks.
- **Fall National Meeting:** Finalize the general idea for a framework for regulatory oversight of third-party data and models so drafting can begin in 2025.

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Attachment A

Third-Party Excerpts from the Adopted

NAIC MODEL BULLETIN: USE OF ARTIFICIAL INTELLIGENCE SYSTEMS BY INSURERS[2]

SECTION 3: REGULATORY GUIDANCE AND EXPECTATIONS

AIS Program Guidelines

(An AIS Program is an insurer's "written program...for the responsible use of AI Systems that make, or support decisions related to regulated insurance practices. The AIS Program should be designed to mitigate the risk of Adverse Consumer Outcomes, including, at a minimum, the statutory provisions set forth in Section 1 of this bulletin.")

4.0 Third-Party AI Systems and Data

Each AIS Program should address the Insurer's process for acquiring, using, or relying on (i) third-party data to develop AI Systems; and (ii) AI Systems developed by a third party, which may include, as appropriate, the establishment of standards, policies, procedures, and protocols relating to the following considerations:

4.1 Due diligence and the methods employed by the Insurer to assess the third party and its data or AI Systems acquired from the third party to ensure that decisions made or supported from such AI Systems that could lead to Adverse Consumer Outcomes will meet the legal standards imposed on the Insurer itself.

4.2 Where appropriate and available, the inclusion of terms in contracts with third parties that:

a) Provide audit rights and/or entitle the Insurer to receive audit reports by qualified auditing entities.

b) Require the third party to cooperate with the Insurer with regard to regulatory inquiries and investigations related to the Insurer's use of the third-party's product or services.

4.3 The performance of contractual rights regarding audits and/or other activities to confirm the third-party's compliance with contractual and, where applicable, regulatory requirements.

SECTION 4: REGULATORY OVERSIGHT AND EXAMINATION CONSIDERATIONS

2. Third-Party AI Systems and Data

In addition, if the investigation or examination concerns data, Predictive Models, or AI Systems collected or developed in whole or in part by third parties, the Insurer should

[2] https://content.naic.org/sites/default/files/inline-files/2023-12-4%20Model%20Bulletin_Adopted_0.pdf

also expect the Department to request the following additional types of information and documentation.

2.1 Due diligence conducted on third parties and their data, models, or AI Systems.

2.2 Contracts with third-party AI System, model, or data vendors, including terms relating to representations, warranties, data security and privacy, data sourcing, intellectual property rights, confidentiality and disclosures, and/or cooperation with regulators.

2.3 Audits and/or confirmation processes performed regarding third-party compliance with contractual and, where applicable, regulatory obligations.

2.4 Documentation pertaining to validation, testing, and auditing, including evaluation of Model Drift.

May 6, 2024

Michael Conway, Commissioner
Chair, Third Party Data and Models (H) Task Force
National Association of Insurance Commissioners
1100 Walnut Street, Suite 1500
Kansas City, MO 64105

Re: 2024 Work Plan Exposure Draft

Commissioner Conway:

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. We appreciate the effort that Task Members undertook to develop the 2024 Work Plan Exposure Draft (Work Plan). We particularly appreciate the opportunity for interested parties to provide comments on the project approach described in the Work Plan.

Understanding third party data and predictive models is among the most important elements of the NAIC's effort to develop a comprehensive regulatory framework related to insurer use of AI. Third-party vendors play a pivotal role in the development of digital innovation that clearly benefit consumers. There is a significant public interest in ensuring the regulatory framework is balanced, i.e., it provides essential consumer protections while encouraging continued innovation.

As we see it, the task is to develop a regulatory framework that achieves the following objectives:

- Is consistent with existing principles of insurance and insurance regulation.
- Recognizes that much of the data at issue is already subject to federal and/or state laws outside of state insurance laws.
- Ensures an appropriate level of transparency involving insurer use of AI that will enable regulators to assess compliance with applicable current statutes and regulations identified in the NAIC Model Bulletin: Use of Artificial Intelligence by Insurers.
- Provides clear guidance to insurers regarding their responsibilities for the use of data and models sourced from third-party vendors.
- Provides third-party vendors with clear guidance regarding regulator expectations and requirements concerning their AI Systems.

- Protects the intellectual property rights of third-party vendors.
- Encourages continued innovation and development of insurer use of AI that benefits insurance consumers and the public.

Comments on the Project Approach

AITC agrees generally with the project approach described in the Work Plan. It makes sense to begin with an effort (i) to identify any comparable existing frameworks; followed by (ii) an evaluation of those frameworks to determine their applicability, in whole or in part, to development of a regulatory framework for third-party data and models.

Clarification is needed, however, concerning the *exact problem* the Task Force seeks to solve. In other words, what problem or problems exist that can only be addressed by a regulatory framework for third party data and predictive models? More specifically, what problems or industry failures involving third-party data or predictive models have been identified that can only be addressed by a regulatory framework? A clear statement of these objectives would bring focus to the Task Force's efforts, possibly narrow the scope of the project, and help to prevent scope creep.

AITC's additional recommendations for the Work Plan include: (i) ensure an open and transparent process, (ii) ensure opportunities for interested parties to provide meaningful input, and (iii) a timetable that allows for the time needed to accomplish items (i) and (ii).

1. Transparency

The Task Force's work must be conducted through an open, collaborative process that provides interested parties with meaningful opportunities to participate and provide input. Transparency is essential for a number of reasons, not the least of which is the importance of obtaining buy – in from third parties, including third party vendors who are liklely to be significantly impacted. Although the Work Plan suggests that the Task Force intends to invite selected outside third parties to provide input there is no mention of whether those sessions will regulator-only or open to interested parties. Adding a meeting schedule to the Work Plan and a statement identifying which sessions will be open interested parties would be extremely helpful for planning and other purposes.

2. Opportunities for Interested Party Participation

We support the Task Force inviting speakers to present information about existing frameworks. However, the Work Plan should state who will select the invitees, and whether there will be an opportunity for interested parties to provide recommendations for guest speakers. Further, the Work Plan should state that interested parties can submit their own framework recommendations. While the guest speakers will no doubt make a meaningful contribution, including a process for input and recommendations from interested parties would ensure that the Task Force has the opportunity to consider the widest range of potential framework-options.

We also note that the Work Plan does not provide for a comment period regarding any recommendations. Perhaps a comment period is contemplated as a part of "[d]iscuss potential frameworks" in the October – November timeframe. If so this should be clarified. If no comment period is contemplated, this is glaring omission and would be a significant departure from customary practice at the NAIC, which is intended to ensure an open, deliberative process and thoughtful consideration of the issues.

3. Timetable

The draft work plan allows for just six months to decide upon a "general idea for a framework" in time for NAIC Fall Annual Meeting. Given the amount of work, the wide range of issues, the complexities involved, and the need for an open process that includes opportunity for public comment on draft recommendations, this seems extremely ambituous if not unrealistic. Rather than adhere to an arbitrary deadline, we think a better approach (and one likely to *save* time in the end) would be to take the time needed to build consensus around a sound approach.

Finally, we note that only four weeks has been allotted to "discuss potential frameworks." We read this as providing no opportunity for interested parties or even other regulators to review the Task Force recommendation with sufficient time to provide thoughtful comments. An exposure and comment period consistent with NAIC practice and procedure should be added to the timetable.

Thank you again for the opportunity to address our comments.

Respectfully Submitted,

Scott R. Harrison
Co-Founder, American InsurTech Council
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BlueCross BlueShield Association

750 9th Street, NW
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May 9, 2024

Commissioner Michael Conway, Chair
Third-Party Data and Models (H) Task Force
National Association of Insurance Commissioners
444 North Capitol Street NW, Suite 700
Washington, DC, 20001

Submitted via email at ssobel@naic.org; kdefrain@naic.org

RE: Third-Party Data and Models (H) Task Force Work Plan

Dear Commissioner Conway:

The Blue Cross Blue Shield Association (BCBSA) appreciates the opportunity to provide comments on the National Association of Insurance Commissioners (NAIC) Third Party Data and Models (H) Task Force's work plan.

BCBSA is a national federation of independent, community-based and locally operated Blue Cross and Blue Shield (BCBS) companies (Plans) that collectively cover, serve and support 1 in 3 Americans in every ZIP code across all 50 states and Puerto Rico. BCBS Plans contract with 96% of hospitals and 95% of doctors across the country and serve those who are covered through Medicare, Medicaid, an employer, or purchase coverage on their own.

BCBSA believes everyone should have access to affordable, high-quality health care, no matter who you are or where you live. BCBSA's commitment to the health of our nation includes continuing to improve the way we gain insights on diverse health factors through the appropriate use of new and emerging technologies, and to provide innovative solutions and services to support Blue Plans and their members.

BCBS companies are collaborating to enable the safe, ethical and responsible use of artificial intelligence (AI) to protect each of our 118 million Blue members in every zip code in America. Proactive steps include systemwide commitments around the adoption of industry-recognized AI governance practices, including

the adoption of risk-based evaluations, senior management oversight and compliance with applicable privacy and security laws.

In addition, we appreciate that much of the work on AI, and predictive models generally, is being done by third parties – either through the development of the models themselves or through use of the data these entities possess. While we have concerns with how this work will align with ongoing public policy and private efforts to adapt to this new environment, BCBSA offers the following recommendations in response to the task force's work plan on third-party data and model use:

- **The task force must carefully consider the scope and breadth of the framework.** Definitions form the scope of public policies and are critical to ensuring there is a clear understanding of what and who is being regulated and to what extent. BCBSA notes that the definition of "third party" from the "NAIC Model Bulletin: Use of Artificial Intelligence by Insurers" (model bulletin) is limited to AI provided by an organization other than the insurer, while the definition of "predictive model" is far broader and could encompass a wide array of insurer activities that already have longstanding, effective regulatory infrastructures. Both terms are present in the task force's work plan. BCBSA urges the NAIC to limit the work plan scope in a manner that aligns with the model bulletin's definition of "third party" to prevent potential unintended consequences. If a broader definition were to be used, it would significantly complicate how the requirements should be approached. We strongly support efforts to address potential bias and discrimination in health care and are concerned that an overly broad scope in regulation, or particularly in legislation, may stifle the ability for insurers to implement programs that address these longstanding challenges.
- **Specific to AI systems (AIS), which we recommend as the focus of this framework, the task force should recognize the distinct roles of AIS developers and those who deploy AIS developed by other entities**. Developers and deployers are responsible for different aspects of how AIS impacts consumers and different perspectives on the AIS being deployed, so should have different responsibilities. Public policies will more effectively address these consumer impacts through differentiated requirements. For example, disclosures to consumers can only be achieved by deployers since they hold the relationships with the consumers. Meanwhile, intellectual property rights require developers to be accountable for tasks that entail access to source codes since deployers will not have access.
- **The framework should align to existing Federal requirements to achieve regulatory harmony.** Achieving regulatory harmony requires addressing intersections with existing Federal laws and regulations as many of the policy issues raised by AI are not novel. Most notably, the Health Insurance Portability and Accountability Act already effectively governs issues related to privacy and disclosures for both Covered Entities, as well as third parties that conduct business on behalf of regulated entities – known as Business Associates**.** There are also potential issues related to intellectual property rights and trade secrets protections covered by Federal rules that should be carefully considered. This alignment will prevent conflicting approaches, which help to ensure that requirements complement — not complicate — advances in technology.

- **The framework should also align to existing NAIC models and other widely accepted frameworks.** The draft work plan touches on a wide array of issues, including cybersecurity, privacy, AI, and insurance rate regulation. Many of these issues are already covered by existing NAIC model laws and bulletins. The framework should align to these existing model laws and bulletins, such as the Insurance Data Security Model Law's requirements related to Oversight of Third-Party Service Provider Arrangements. It is vital that this framework does not undo or undermine the successful work that other NAIC committees have conducted and completed. The work plan should also seek to harmonize the task force's approach and align to widely accepted frameworks, such as the National Institute of Standards and Technology Artificial Intelligence Risk Management Framework, which has been subject to extensive industry input. Consistency will reduce burdens on all stakeholders and, more importantly, support adherence to requirements and responsible adoption.

***

Thank you again for your leadership on these important policy priorities. We appreciate your consideration of our comments. If you have additional questions or comments, please contact Randi Chapman, Managing Director, State Affairs at randi.chapman@bcbsa.com.

Sincerely,

Clay S. McClure

Third Party Models Task Force

National Association of Insurance Commissioners

Attention: Kris Defrain

May 14, 2024

RE: Comments on 2024 Charges and Work Plan

The undersigned Consumer Representatives applaud the formation of the Third Party Data and Models Task Force, and appreciate the thoughtful work plan that has been put forward. We especially commend the consideration of different regulatory approaches for different uses of models within insurance.

We anticipate that the Task Force will find and review a variety of existing principles, definitions and frameworks for oversight of predictive models (sometimes referred to as "predictive AI", as distinct from "generative AI"). While a good framework is of value in determining how to regulate the development and use of these models, we also believe that the effectiveness of many regulations in preventing harms to consumers depends on careful examination of the details of how models are developed, put into operation at insurers, and overseen by management. As noted in a recent Politico op-ed, state laws and regulations intended to prevent AI and models from harming consumers can in practice codify damaging practices and effects of these models.

Such detailed concerns span the life cycle of model development (such as data quality issues, effectiveness of processes for linking distinct datasets, strong controls over which data is used in which model and related version controls, etc.), operationalization (whether suitable uses are clearly defined and carried through in operation, escalation and recourse processes for model outputs, etc.), the management oversight of how models are used (such as employee training, performance measures, etc.), and processes for addressing problems that arise in the use of models (human overrides, escalation, correction of incorrect of improper data or results, etc.).

The Task Force work plan raises consideration of insurance department capacity related to oversight of models and vendors. We support robust discussion of this issue, as resource limitations can affect the areas and depth of oversight DOIs are able to exercise over model developers and/or insurers. We note that federal agencies such as FDA have suggested that they may need outside assistance to effectively oversee AI. State insurance regulators may wish to consider arrangements that allow them to leverage shared or external resources, within or outside the state, to address critical details of regulation.

The following issue areas reflect some considerations we feel are important for this Task Force to address in selecting and applying a regulatory framework for state insurance department oversight of third party models.

Model Development and Suitability for Intended Uses

1- Does the data used to create these models provide an accurate, fair, and equitable representation of consumers, properties, or scenarios about which it is to be used?
    a. For health insurance, what analysis has been done of the robustness and relevance of underlying data for different patient subpopulations?
    b. Are there procedures in model development and deployment to address subgroups where the data is insufficient to produce robust conclusions (e.g., patients with rare diseases, demographic groups where the data is known to have errors or biases, etc.)?
2- Have the datasets used to develop the model undergone documented profiling of data quality? Are limitations in conclusions arising from data quality problems clearly identified in resultant models?
3- How are limitations in the model expressed to clients (i.e., insurers) and to regulators?
4- Are model sales teams trained to clearly represent the limitations of the model?
5- When an insurer contracts with a third party modeler, are the intended uses and excluded uses well delineated within the contract?
6- What quality control procedures exist in model development to avoid problems of mistaken identity of beneficiaries, properties, or other insured entities?
    a. Identities of individuals in medical records, as well as other administrative datasets are known to suffer from data quality issues.
    b. Large scale linkage of datasets is known to have limitations in accuracy, particularly when the datasets to be linked have data quality problems.
    c. We believe the processes by which datasets are assembled for use in modeling merit close oversight.

Operationalization

When third party models are operationalized by insurers, how are the following considerations managed?

7- Integration with internal processes and systems
    a. How well do systems integrations needed to operationalize the model function in practice?
    b. Do processes and software systems developed to put models are put into operation define and test use cases in which data or inputs upon which the model relies are not available – and thus must be handled “offline” or as an “override”?
    c. Has someone created processes to deal with cases where the integration does not work (e.g., consumers with information in “non-standard” databases, legacy systems, etc.)?

8- Bypassing or overriding model results
    a. Are processes and software systems set up to permit bypassing model results?
    b. Are there well defined criteria to test whether these “override” use cases are functioning and a consumer does not get stranded?

9- Transparency
    a. Can the insurers explain the rules which are being employed for coverage decisions (sometimes called “ascertainable standards”)?

b. Can scores or decisions made by models by traced back to well-defined characteristics of the insured person or property, or the claim/loss?
c. Can decisions made by the models be clearly explained to consumers?

10- Clear recourse and escalation paths

a. How can a consumer who has a problem with a model's results obtain recourse for this problem? For example, if a consumer has been mis-identified by a model or data, how can that consumer remove the erroneous data or challenge model results?
b. Will the insurer and the third party model provider work together to resolve consumer problems once a complaint or issue is raised so that the consumer is not left to resolve issues on multiple fronts on their own? Is the Insurer ultimately responsible for correcting problems?
c. When an issue involves knowledge or intellectual property held by the third party modeler/vendor, are there established processes and trained personnel for the consumer to cross from the insurer to the third party modeler? Are these processes regularly tested?
d. Are there time standards for resolution of problems?

11- Consumer rights to data correction, alteration, and deletion

a. Do both the insurer and the third party model provider have mechanisms for consumers to submit corrections to their data?
b. If a consumer wishes to exercise his or her rights around deletion of data, is there a mechanism to remove data from third party models?
c. Can a consumer not wishing to have his or her data used also opt out from the applicability of models derived from this data?

12- Version control

a. Does model development use appropriate version control techniques? Traditional software version control systems (e.g., Github) do not suffice for control of datasets; additional version control mechanisms are needed to ensure that old versions of model results can be reproduced and examined (i.e., full and distinct version control of data, associated cleanup/transformation steps, and model generation, also called "data lineage")
b. Can both the model developer and insurer track and identify the specific version of a model used where the results are employed (e.g., in underwriting, claims decisions, etc.)?
c. In cases where the model incorporates either outside datasets (e.g., through data linkage) or uses data from an insurer client, is this outside data subject to rigorous version control?
d. Do version control procedures in both modeling and deployment incorporate data that consumers have corrected, stricken, etc.?

While we recognize that regulators may not have capacity to address all of these issues directly, due their potential for adverse impacts on consumers we believe they merit consideration as part of the development of regulatory frameworks.

We welcome questions or any other opportunities to be helpful the Task Force in this work.

Signees

Eric Ellsworth

Adam Fox

Brenda Cude

Kara Nett Hinkley

Bonnie Burns

Silvia Yee

Brendan Bridgeland

Peter Kochenburger

Third Party Models Task Force

National Association of Insurance Commissioners

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While we recognize that regulators may not have capacity to address all of these issues directly, due their potential for adverse impacts on consumers we believe they merit consideration as part of the development of regulatory frameworks.

We welcome questions or any other opportunities to be helpful the Task Force in this work.

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May 1, 2024

Commissioner Mike Conway, Chair
Third-Party Data and Models (H) Task Force
National Association of Insurance Commissioners
1100 Walnut Street, Suite 1500
Kansas City, MO 64106-2197

By Email to Kris DeFrain, kdefrain@naic.org.

Re: Third Party Data and Models (H) Task Force - Proposed Work Plan

Dear Commissioner Conway:

On behalf of the members of Americas Health Insurers Plans (AHIP), we appreciate the opportunity to provide comments to the Third-Party Data and Models (H) Task Force's Proposed Work Plan.

As regulators begin their work in this area, it is critical to be mindful of the broad and extensive requirements imposed on Covered Entities and Business Associates pertaining to privacy, data security, data minimization, and other issues by the Rules issued by the United States Department of Health and Human Services, Parts 160 and 164 of Title 45 of the Code of Federal Regulations, under the Health Insurance Portability and Accountability Act of 1996 (Public Law 104-191, HIPAA), and the Health Information Technology for Economic and Clinical Health Act (Public Law 111-5, HITECH).

For issues pertaining to vendor oversight, regulators should refer to language in the NAIC Insurance Data Security Model Law, #668, in Section 4.F, "Oversight of Third-Party Service Provider Arrangements". Additionally, further discussions and standards development are needed regarding the respective responsibilities and information sharing of developers and deployers.

For issues regarding AI risk management, we urge regulators to align their efforts with the NIST AI Risk Management framework.

Due to the rapidly advancing technology and the highly competitive nature of AI development, it is essential to consider and protect intellectual property rights, trade secrets, and confidential

information. Similarly, we are always mindful that the need to protect consumers from abuses must be balanced with the need to encourage advancements and engaging vendors in order to reap all the possible benefits of this promising AI technology.

Thank you for the opportunity to provide these suggestions and comments. We look forward to further discussing these matters with you.

Sincerely,

Bob Ridgeway
Bridgeway@ahip.org
501-333-2621

AHIP is the national association whose members provide health care coverage, services, and solutions to hundreds of millions of Americans every day. We are committed to market-based solutions and public-private partnerships that make health care better and coverage more affordable and accessible for everyone by promoting, among other things, effective and efficient examination processes by state insurance regulators.

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May 3, 2024

Commissioner Michael Conway (CO), Chair
NAIC Third-Party Data and Models (H) Task Force
c/o Kris DeFrain, NAIC Director, Research and Actuarial Services
Via email kdefrain@naic.org

Re: NAMIC Comments on the Third-Party Data and Models (H) Task Force 2024 Charges and Work Plan

Dear Chair Conway, Vice-Chairs, and Members of the Committee:

On behalf of the National Association of Mutual Insurance Companies (NAMIC)[1], we would like to thank the NAIC Third-Party Data and Models (H) Task Force for requesting and accepting comments on its 2024 Charges and Work Plan. NAMIC is supportive overall of the exposed Work Plan's direction, and believes if the Work Plan is adhered to in conjunction with a transparent and collaborative process with the industry, the Task Force can reach an outcome that benefits all stakeholders. Pursuant to that goal, NAMIC provides below general substantive comments and recommended points of emphasis on the exposed Work Plan.

SUBSTANTIVE COMMENTS

Identify the Challenge to be Solved

The Work Plan opens in Project Step A with a directive to evaluate the current issues insurance departments have regulating insurers that use third-party data and models in insurance processes. Since the Task Force's creation, such issues or challenges have not been made explicit, and the lack of identifying these issues creates question as to the direction of a "framework for regulatory oversight of third-party data and predictive models."[2] NAMIC encourages the Task Force to begin its work with publicly identifying these issues or challenges. Where concrete challenges are identified, they may guide the direction of the Task Force's work so as to avoid creating a solution disjointed from any needs of the market. The Task Force

[1] The National Association of Mutual Insurance Companies consists of nearly 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 $391 billion in annual premiums and represent 68 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.

[2] *See* NAIC Third-Party Data Models (H) Task Force 2024 Charges and Work Plan, https://content.naic.org/sites/default/files/2024-charges-and-work-plan-exposure-040524.pdf.

should be specific about the identified challenges, and what a new model law or amendments to existing law or regulations are trying to solve.

Examine Existing State Law and Applicability to Third Party Vendors

Project Step A of the Work Plan includes a directive to "[e]valuate existing frameworks and discuss whether existing frameworks might be useable for the regulation of third-party data and models." NAMIC agrees that knowing what existing law says and covers should be the primary consideration in developing regulatory policy. For instance, relative to the property casualty sector, models that impact pricing are already filed with departments, and undergo a highly scrupulous review process. Relatedly, NAMIC encourages the Task Force to explore and evaluate the different types of third-party data and model vendors that exist, and how insurers use them. The Work Plan poses the question of why third-party vendors are reluctant to get licensed as advisory or rating organizations. One of the reasons for this is very likely that, depending on the service that the third party provides and how insurers work with them, the third party does not meet the definition of an advisory or rating organization. Categorizing all third parties into neatly defined existing boxes is likely not tenable. Additionally, states lack uniformity in how advisory and rating organizations are defined. Achieving a more accurate characterization of what different types of third parties exist, and subsequently striving for consistency, clarity, and appropriate applicability will enhance the Work Plan's effectiveness.

Provide a Transparent Process with Industry Involvement

NAMIC fully supports the Work Plan's commitment to transparency throughout the process. The focus of the Task Force is regulation of a third party with whom insurers have formed a contractual relationship. As such, the industry and its third-party vendors must not only have clear lines of sight into the Task Force's work, but also pose a critical participation role in these policy discussions. The industry has much to provide in the way of education to the Task Force on how third-party relationships are negotiated, leveraged, the types of data and models that are used, and how these relationships benefit the industry and consumers alike.

Avoid Overly Burdensome Requirements and Ensure Consistency Across Committees

The current draft of the Work Plan includes a goal to ensure that any resulting framework does not unnecessarily discourage innovation. NAMIC believes this goal to be an integral part of the Task Force's work. No matter the size of the company, as technology and model capabilities advance, and third parties become more specialized in their respective data or model areas of expertise, partnerships between insurers and third parties are more likely to grow and are more likely to create increased benefit for consumers. It is therefore essential to consider such consumer benefit and not unnecessarily discourage innovation in this space.

Further, NAMIC encourages the Task Force to publicly engage with other NAIC Committees and Working Groups that may be addressing similar topics. For example, the NAIC Accelerated Underwriting (A) Working Group (AUWG) has restarted its work on a Market Referral to the Market Conduct Examination Guidelines (D) Working Group. In the most recent exposure draft of

this work[3], the AUWG recommends that a new standard be included in Chapter 23 – Conducting the Life and Annuity Examination related to a life insurer's use of big data, artificial intelligence, and machine learning to underwrite life insurance. In the suggested standards, the AUWG highlights the need for addressing review of documents like policy rates and forms, accelerated underwriting models and/or summaries of those models, information about source data used, and testing or auditing policies. While the AUWG's work is specific to life insurance, NAMIC believes it important and beneficial for the industry and consumers alike to have consistency across committees when potentially addressing enforcement mechanisms relative to data and model use – especially relative to ensuring that innovation is not stifled thorough any such requirements.

IN SUMMARY

We close by again thanking the Task Force for allowing NAMIC to submit comments to engage on this extremely important discussion regarding third party vendors, and we urge you to continue offering additional iterative opportunities for robust, transparent conversations throughout the education process and any potential drafting processes. NAMIC endeavors through these comments to express its overall support for the Work Plan and to highlight areas that the Task Force should especially direct its focus. NAMIC looks forward to continuing our work with the Task Force to arrive at solutions that protect and stabilize the insurance marketplace while fostering growth and innovation that benefit all stakeholders.

Sincerely,

Lindsey Klarkowski
Director of Data Science & AI/ML Policy
NAMIC

[3] *See* AUWG Referral to Market Conduct Examination Guidelines (D) Working Group exposure draft, https://content.naic.org/sites/default/files/inline-files/Market%20Reg%20Referral%201-11-23.docx.

Comments on Third-Party Data and Models (H) Task Force 2024 Charges and Work Plan

I am Earnest Collins, Owner and Managing Member of Regulatory Compliance & Examination Consultants LLC. I have been an interested party in the Innovation, Cybersecurity, and Technology (H) Committee for over ten years and was an interested regulator for over twenty years.

I want to comment on the Third-Party Data and Models (H) Task Force 2024 Charges and Work Plan.

Project Steps

Evaluate existing frameworks and discuss whether existing frameworks for regulatory oversight of third-party data and models, including those utilized in artificial intelligence.

- Algorithm transparency in machine learning is becoming increasingly important in insurance, finance, and health care. Explainable AI (XAI) made significant strides in 2024, particularly in enhancing insurance company compliance and regulation. Its implementation is critical, but fosters trust transparency, accuracy, and accountability. It's important to note that there is often a tradeoff between these dimensions when choosing machine learning models and algorithms. Therefore, frameworks around algorithm transparency in machine learning that aim to make the decision-making process of AI models clear and understandable should be discussed when evaluating the model.

- *Artificial Intelligence Risk 4 Management Framework: 5 Generative Artificial Intelligence 6 Profile is a framework that should be considered.*

Discuss goals for a future third-party framework.

- Request Model Cards, which provide details about the machine learning model's construction, architecture, and training data.
- Contract service level agreements (SLA)should be provided.
- Frameworks should comply with current global AI regulations, e.g., 2024 Biden Harris Administration in the United States, EU AI Act
- Data is one of the most important dimensions in these predictive models; therefore, regulatory oversight should be focused on data governance frameworks. *Artificial Intelligence Risk 4 Management Framework: 5 Generative Artificial Intelligence 6 Profile is a framework that should be considered.*

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National Association of Insurance Commissioners
Third-Party Data and Models (H) Task Force
Attn: Kris DeFrain

RE: THIRD-PARTY DATA AND MODELS (H) TASK FORCE 2024 Charges and Work Plan

Dear Ms. DeFrain:

We applaud the Innovation Cybersecurity and Technology Committee for establishing the Third-Party Data and Models Task Force (Task Force). The draft 2024 Charges and Work Plan is thorough and includes important aspects to consider, such as:

a) Existing regulatory frameworks;
b) Current regulation of third-party data and models;
c) Differences across lines of business and company uses; and
d) Ensuring the framework does not unnecessarily discourage innovation.

We recommend that, in addition to the considerations included in this work plan, that the Task Force pay particular attention to weighing costs and benefits to future alternative regulatory approaches. To this end, we recommend that the Task Force understand the potential risks to policyholders under frameworks with less regulation while also understanding the costs and time associated with additional regulation. For example, currently some states engage in more review of catastrophe models than others – it may be instructive for the Task Force to hear from lessons learned (from regulators, carriers, and third-party vendors) regarding the costs and benefits of the differences in the level of review of these models.

We also recommend that the Task Force develop a list of specific risks associated with the use of third-party data and models. While the development of a list of risks may be implied by the work plan item, "What are the current issues that insurance departments have regulating insurers that use third-party data and models in rating, underwriting, marketing, and handling claims?", we recommend explicitly stating that the Task Force will develop a comprehensive list of risks. We believe that such a list will be a useful reference point for any regulatory proposals that emerge from this group's efforts.

We appreciate the opportunity to provide these comments and look forward to participate in future dialogue on this topic.

Sincerely,

David Heppen, FCAS, MAAA
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610.247.8019

Lauren Cavanaugh, FCAS, MAAA
Director
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609.255.9778

American InsurTech Council (AITC):

- Clarification on exact problem
- Ensure an open and transparent process
- Ensure opportunities for interested parties to provide meaningful input
- A timetable that allows for the time needed

Americas Health Insurers Plans (AHIP):

- Be mindful of the requirements imposed on Covered Entities and Business Associates pertaining to privacy, data security, data minimization, and other issues by the Rules issued by the Department of Health and Human Services
- Refer to NAIC Insurance Data Security Model Law, #668, in Section 4.F, "Oversight of Third-Party Service Provider Arrangements"
- For AI risk management, align efforts with the NIST AI Risk Management framework
- Consider and protect intellectual property rights, trade secrets, and confidential information

National Association of Mutual Insurance Companies (NAMIC):

- Clarification on exact problem
- Examine existing state law and applicability to third party vendors
    - Note that third party does not meet the definition of an advisory or rating organization. Categorizing all third parties into neatly defined existing boxes is likely not tenable.
- Ensure an open and transparent process
- Avoid overly burdensome requirements and ensure consistency across committees (e.g. AUWG)

Earnest Collins, Owner and Managing Member of Regulatory Compliance & Examination Consultants:

- Note there is often a tradeoff between accuracy and transparency
- Request Model Cards, which provide details about the machine learning model's construction, architecture, and training data.
- Contract service level agreements (SLA) should be provided.
- Frameworks should comply with current global AI regulations, e.g., 2024 Biden Harris Administration in the United States, EU AI Act
- Regulatory oversight should be focused on data governance frameworks.

Risk & Regulatory Consulting (RRC):

- Recommend weighing costs (risks & burden of regulation) vs. benefits to future alternative regulatory approaches.
- Develop a comprehensive list of specific risks

BlueCross BlueShield Association (BCBSA):

- Concerns about how our work aligns with ongoing public policy and private efforts
- Consider the scope and breadth of the framework – who and what will be regulated
- Definition of "predictive model" is very broad so could encompass a wide array of insurer activities
- Should recognize the distinct roles of AIS developers and those who deploy AIS developed by other entities
- Disclosures to consumers can only be achieved by deployers since they hold the relationships with the consumers

- Intellectual property rights require developers to be accountable for tasks that entail access to source codes since deployers will not have access.
- Framework should align to existing Federal requirements to achieve regulatory harmony.
    - Most notably, the Health Insurance Portability and Accountability Act already effectively governs issues related to privacy and disclosures for both Covered Entities, as well as third parties that conduct business on behalf of regulated entities – known as Business Associates.
- Potential issues related to intellectual property rights and trade secrets protections covered by Federal rules that should be carefully considered.
- Should also align to existing NAIC models and other widely accepted frameworks, such as the Insurance Data Security Model Law's requirements related to Oversight of Third-Party Service Provider Arrangements.
- Should align to NIST RMF

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May 10, 2024

SUBMITTED VIA ELECTRONIC MAIL

Kris DeFrain, Director
Research & Actuarial Services
National Association of Insurance Commissioners (NAIC)

kdefrain@naic.org

Re: Comment Letter: Third-Party Data and Models (H) Task Force: 2024 Charges and Workplan

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The undersigned consultants from Milliman, Inc. and its subsidiary Milliman Appleseed LLC appreciate the ability to participate and comment on the *2024 Charges and Workplan* adopted by the NAIC Third-Party Data and Models (H) Task Force (hereinafter referred to as Task Force). Milliman is an independent actuarial consulting firm, and Milliman Appleseed is an advisory organization licensed to submit loss costs, rating factors, and risk scores with state insurance regulators across the U.S. (hereinafter and collectively referred to as Milliman).

We believe that there is a significant role for collective regulatory review and combining resources to effectively increase transparency and consumer protection under current and new or modification of adopted model laws and regulations. We support the Task Force's goal to *develop and propose an optimal regulatory framework for the oversight of third-party data and predictive models*, and offer our support and expertise to help research, evaluate, and determine an optimal framework for regulatory oversight of third-party data and predictive models, including the use of artificial intelligence. Milliman has worked with legislators, regulators, insurers, and the actuarial community throughout the U.S. to help create standards and education concerning model review, including working with the Catastrophe Modeling Primer Drafting Group of Catastrophe Insurance (C) Working Group and serving as the insurance industry representative on the California Office of the State Fire Marshal Risk Modeling Advisory Workgroup. To that end, we welcome the opportunity to assist the Task Force in any way possible in its research and design efforts to achieve an optimal regulatory framework.

By way of example, we are including several links and attachments to documents to accompany this letter that highlight Milliman's expertise and collaboration with various legislative and regulatory stakeholders. These groundbreaking projects have demonstrated our commitment to enabling regulators and the actuarial community to leverage new techniques responsibly and effectively in the insurance context. While it is not our desire to overwhelm the Task Force with a detailed menu of Milliman's expertise, we believe that the following list and attachments serve as examples of the type of work that could benefit the Task Force in achieving its goals under the 2024 Charges and Work Plan:

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- White Paper: ***Statistical Methods for Imputing Race and Ethnicity***, Society of Actuaries Research Institute (April 2024)
- White Paper: ***Catastrophe Models for Wildfire Mitigation: Quantifying Credits and Benefits to Homeowners and Communities***, Casualty Actuarial Society (2022)
- Article: ***Taking Catastrophe Models Out of the Black Box***, Milliman (July 2022)
- White Paper: ***Interpretable Machine Learning for Insurance | SOA***, Society of Actuaries (April 2021)
- Attachment A - (Presentation): ***Market Trust and Market Stability***, RAA Catastrophe Risk Management Conference (February 2024)
- Attachment B - (Presentation): ***Fairness and Transparency in Machine Learning***, 2023 Auto Insurance Report Conference (April 2023)

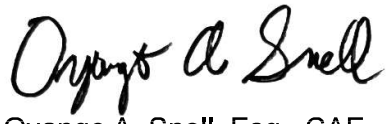
We are excited to participate in this process and support the goals of the Task Force to research and evaluate key components regarding third-party data and models. We gladly offer our expertise and look forward to working with the Task Force as it executes its 2024 Charges and Work Plan.

Respectfully submitted,

Nancy Watkins, FCAS, MAAA
Principal & Consulting Actuary

Peggy Brinkmann, FCAS, MAAA, CSPA
Principal & Consulting Actuary

Matt Chamberlain, FCAS, MAAA, CSPA
Principal & Consulting Actuary



Oyango A. Snell, Esq., CAE
Government Relations Consultant

Attachment A

Market Trust and Market Stability, RAA Catastrophe Risk Management Conference (February 2024)

Model trust and market stability

RAA Cat Risk Management Conference
Orlando, FL

Nancy P. Watkins, FCAS, MAAA
FEBRUARY 29, 2024

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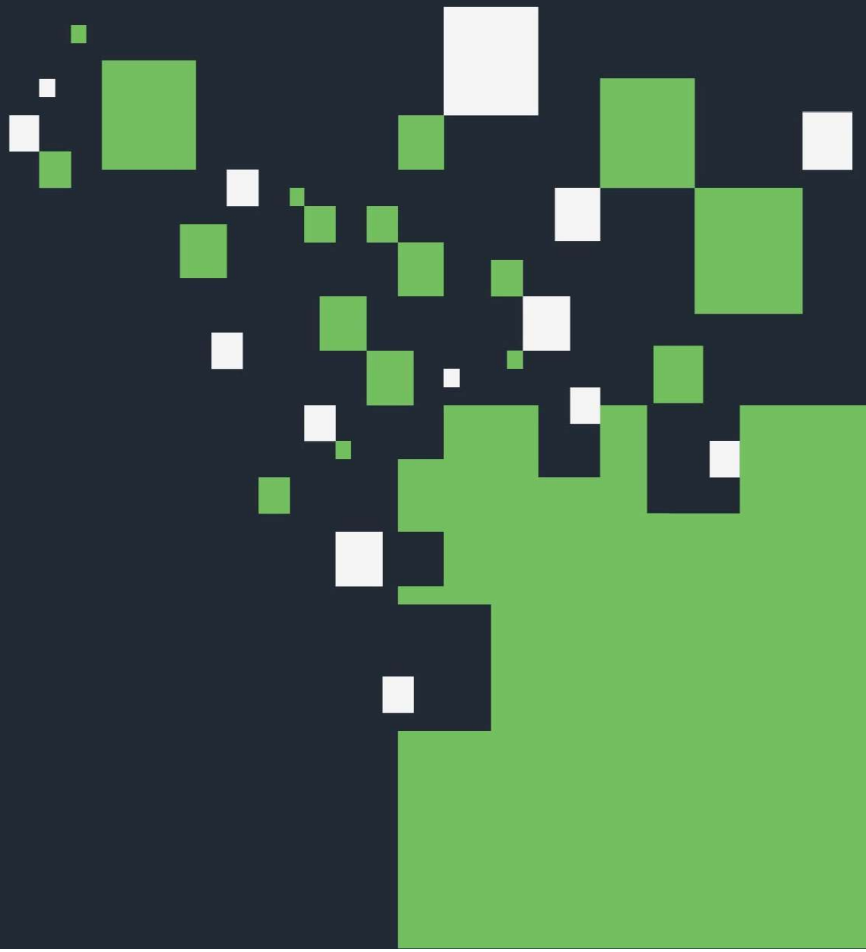
Agenda

- Role of catastrophe models in sustainable insurance markets
- Real and perceived model gaps
- What should we do? 4 ideas and 2 examples

Catastrophe models and sustainable insurance



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What constitutes a sustainable insurance market?

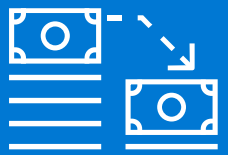
And how do cat models contribute?

Availability

- Insurer can manage and measure the risk
- Insurer can charge premiums that represent the cost of risk transfer

Affordability

- Policyholders are willing to pay the price offered to transfer the risk
- Policyholders are able to pay the premium



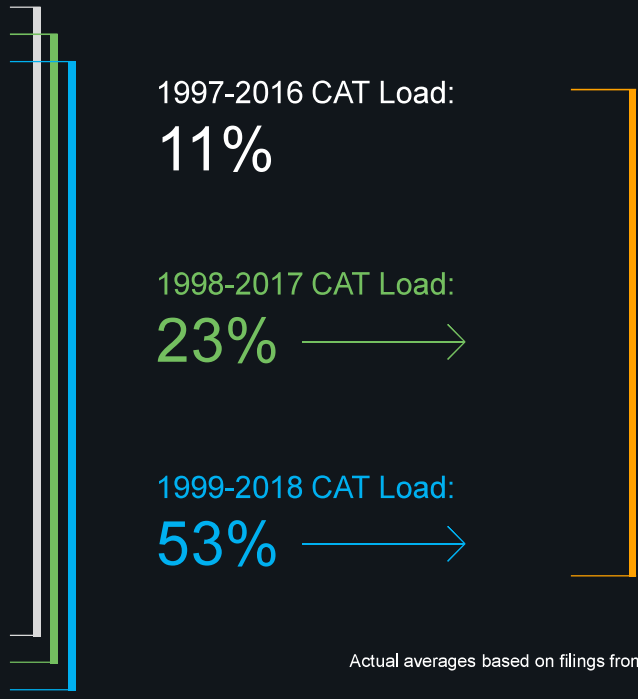
Reliability

- Insurer will be able to pay claims
- System will be stable over the long term

Historical data vs. models: illustrating effect on affordability

Inclusion of 2017 and 2018 wildfires in CA HO rate formula increased average catastrophe load indication by almost 5x

Year	Non-cat loss	Cat loss	Cat/non-cat ratio
1997	101	5	5%
1998	123	14	11%
1999	131	7	5%
2000	179	-0	0%
2001	216	1	1%
2002	236	8	3%
2003	159	78	49%
2004	183	5	3%
2005	197	12	6%
2006	230	7	3%
2007	251	120	48%
2008	320	75	23%
2009	334	3	1%
2010	332	3	1%
2011	396	17	4%
2012	345	2	1%
2013	386	0	0%
2014	350	22	6%
2015	394	145	37%
2016	403	14	4%
2017	478	1,243	260%
2018	390	2,395	614%



Actual averages based on filings from 3 of the top 10 California homeowners insurers

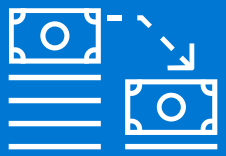
How can mistrust in catastrophe models impact the market?

Unavailable

- Conservatism and uncertainty in risk measurement and management
- Reduced risk appetite
- Inability to charge true cost of risk

Unaffordable

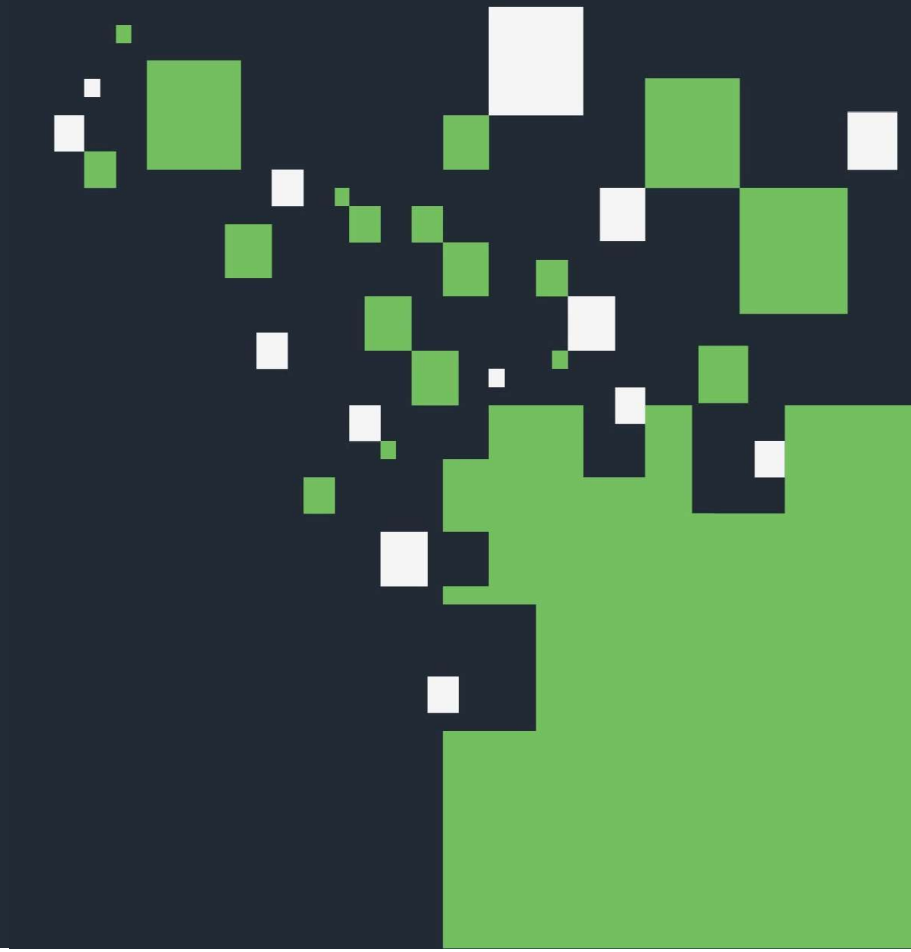
- Reduced competition
- Restricted coverage
- Potential disconnect between premiums and risk



Unreliable

- Unpredictable environment
- Reinsurance challenges
- Solvency concerns

Real and perceived model gaps



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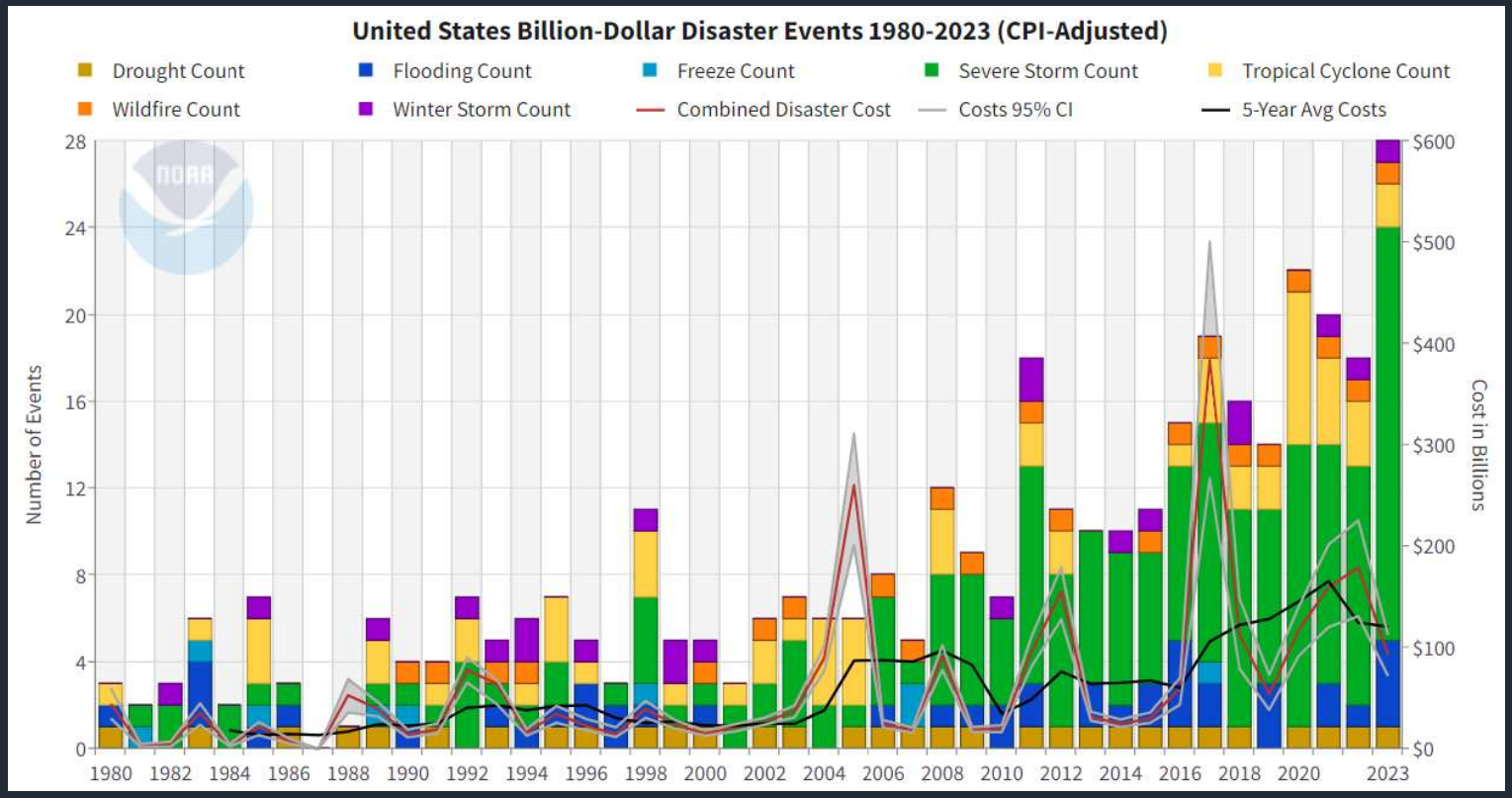
Change in the importance of secondary perils

Becoming more important – not just tail events



Smith, Adam B. (2020). U.S. Billion-dollar Weather and Climate Disasters, 1980 - present (NCEI Accession 0209268). NOAA National Centers for Environmental Information. Dataset. https://doi.org/10.25921/stkw-7w73. Accessed 02.20.2024

Real model gaps exist, especially for secondary perils

Variety of issues may diminish user confidence

- Lack of convergence
- Insufficient historical events/data for validation
- Perceived under- or overstatement of risk
- Poor visibility of current conditions
- Consideration of important risk factors
- Inability to model mitigation efforts

Widely perceived model gaps

…and when it comes to trust, perception is real

Black boxes

Biased

Drastically increase premiums

Undermine regulatory oversight

Model disagreement ➔ they can't be trusted

Modeling climate change impacts as a special case

Expansion of catastrophe modeling outside traditional insurance risk transfer arena

New drivers of uncertainty

New use cases

New users

New model vendors

What happens when the trust gap isn't bridged?

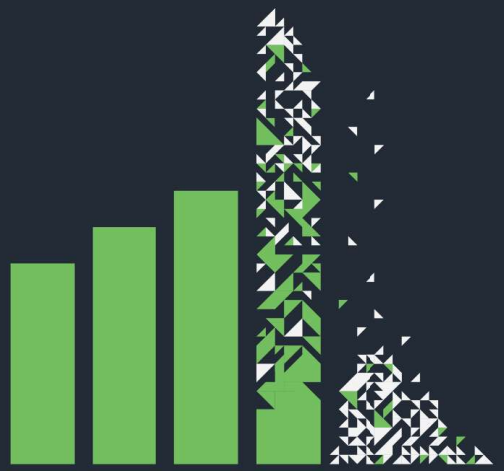
Typical policy responses and potential unintended outcomes in an insurance crisis

Responses

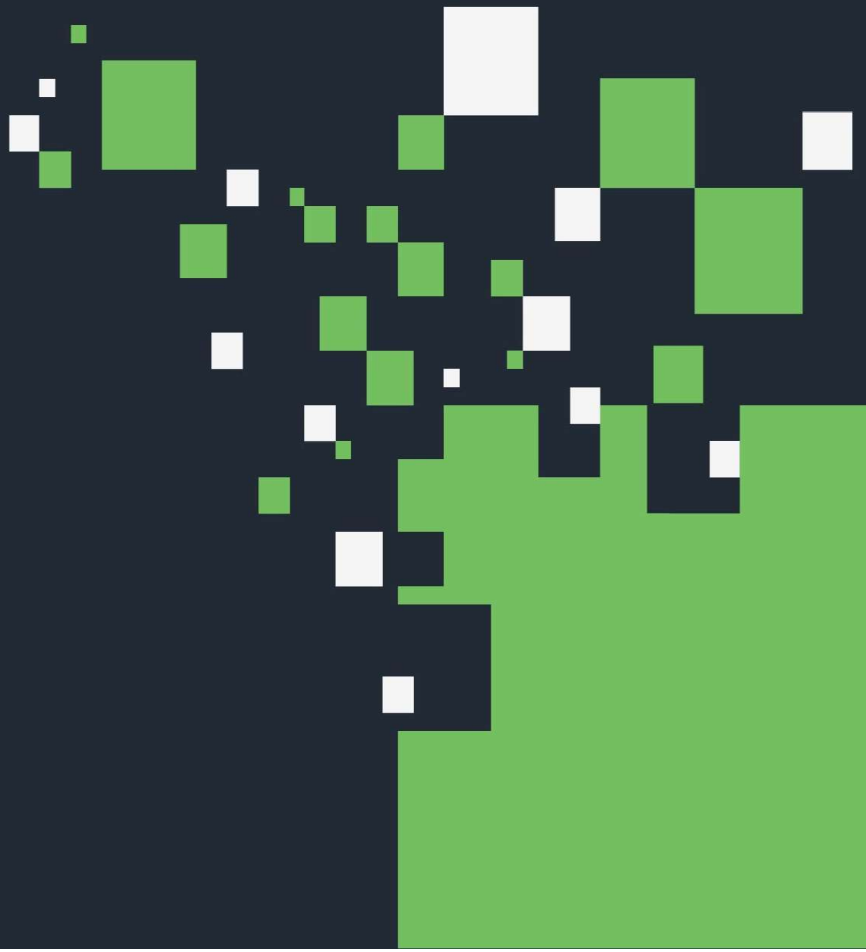
- Prohibition/restrictions on:
  - Use of models in pricing
  - Premium increases
  - Non-renewals, underwriting
- New mechanisms to dispute models/pricing
- Mandated discounts
- Requiring model IP to be published
- Public cat models
- Data calls
- Expansion of government-backed insurance and reinsurance

Potential outcomes

- Subsidies for high-risk policies
- Delays in addressing root causes of risk
- Consumer confusion
- Lack of incentive or information to mitigate
- Premium erosion
- Increased expense without concurrent benefit
- Reduced demand for and investment in modeling
- Threats to insurer solvency
- Accelerated market withdrawal
- Possible market collapse



What should we do?



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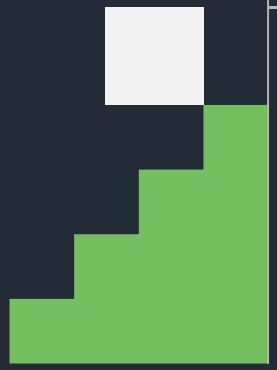
How can we bridge the model trust gap?

4 ideas for the insurance and modeling industries, actuaries, regulators



1

Invest in data and science to improve models

2

Establish robust classifications for community resilience

3

Establish standardized means for model comparison

4

Promote model risk literacy and training

Example 1

Wildfire community risk mitigation

Milliman

What will increase reinsurance capacity in wildfire-exposed areas?

Input from reinsurance industry executive

- *If a goal of mitigation efforts is to help stabilize the insurance market and/or to help limit insurance premiums, the mitigation work plans need to be communicated and the mitigation spending must result in actual risk reduction to insured structures.*
- *Unless insurers are aware of effective risk reduction, they will not be able to take it into account as they evaluate risk and their willingness to take on risk at a given price.*
- *Transparency in goals and actual mitigation projects planning/"completion" and maintenance is essential.*

September 2022 convening: Wildfire Knowledge Alignment Work Group

Fire management professionals, fire scientists, actuaries, cat modelers, IBHS, CDI

Purpose: To better understand the impacts of defensible space, home hardening, defensive action, and location on wildfire risk while identifying gaps in the current data and science.

Difficulties estimating wildfire risk:

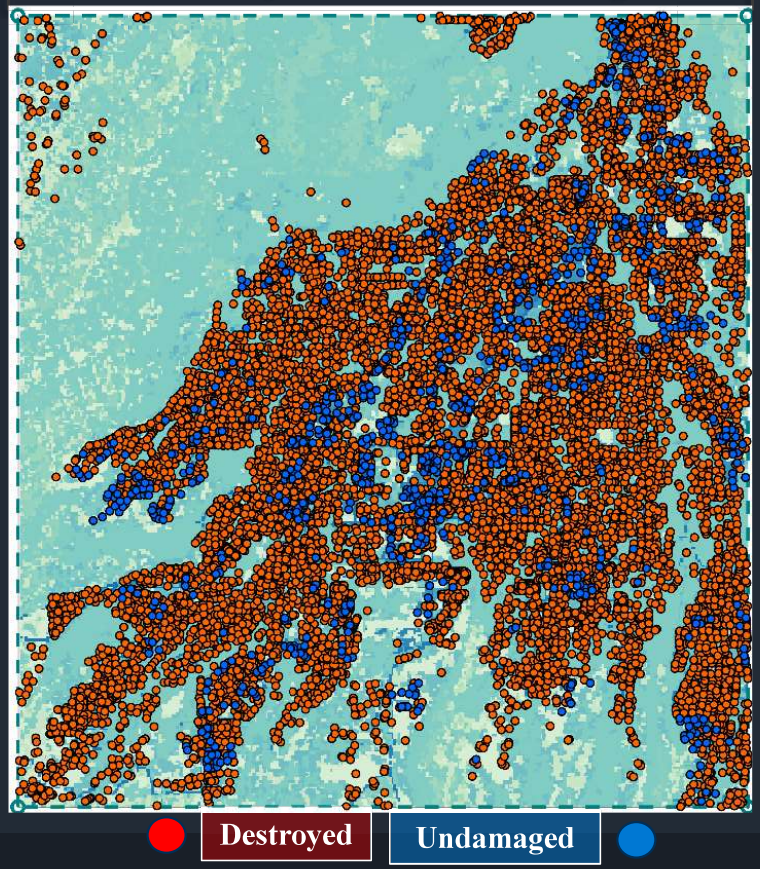
- Insufficient understanding of fire spread in the built environment
- No measurement of strength/effectiveness of fire suppression
- Lack of agreement on the mitigations that matter
- Lack of info on mitigation across a community
- Barriers to social acceptance and implementation at scale

HOOVER INSTITUTION Stanford | Doerr School of Sustainability

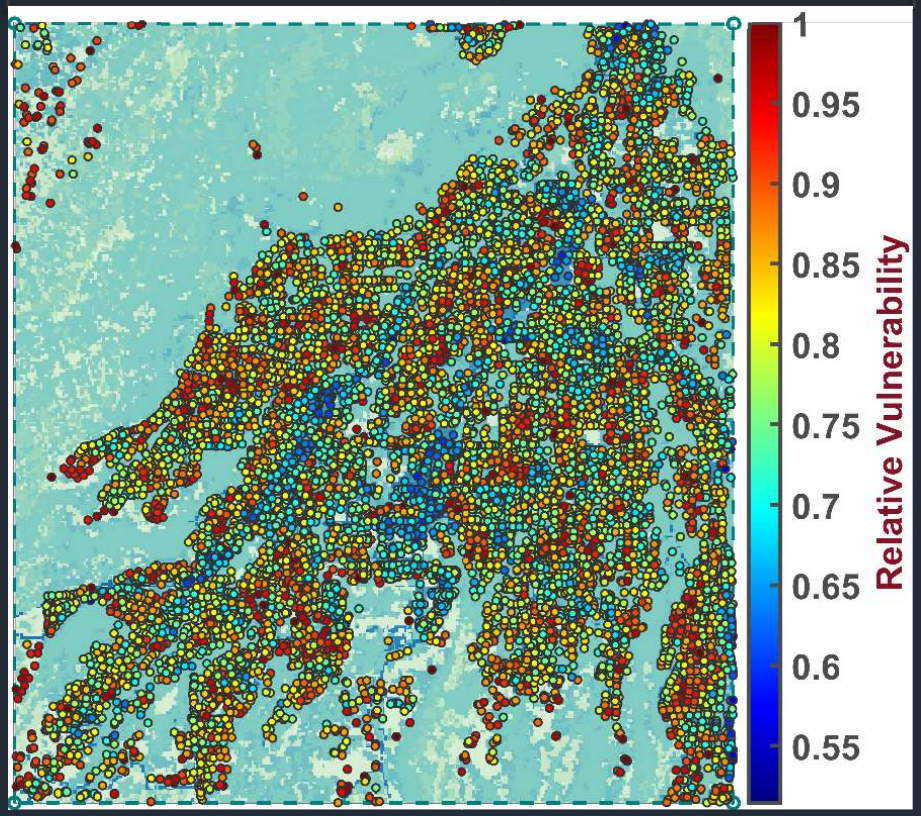
Model fire spread within the built environment

Colorado State model helps understand how fire moves from structure to structure

2018 Camp Fire observed damage



Relative vulnerability: 85% match



Milliman

Colorado State University

Evaluate wildfire suppression ability with WUI Fire Protection Score

Pilot underway with WFCA to measure the ability of a community's fire protection agency to prevent urban conflagrations

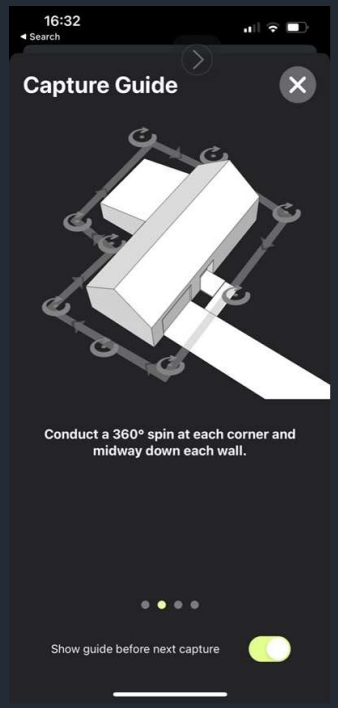
- Collect uniform data from fire fighting agencies and their battalions
- Assess command and operational staff, equipment, training, and community risk reduction activities
- Score communities based on surrounding battalion resources and travel times

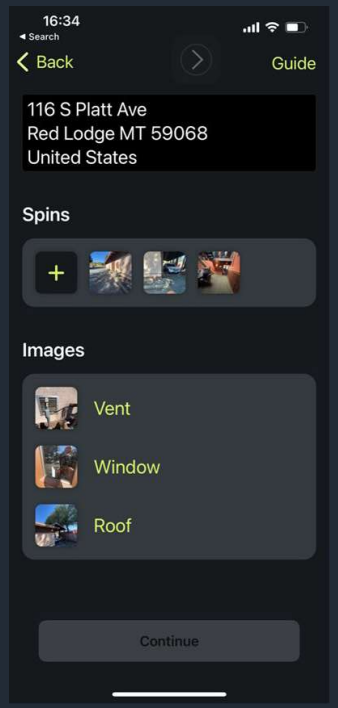
WESTERN FIRE CHIEFS ASSOCIATION

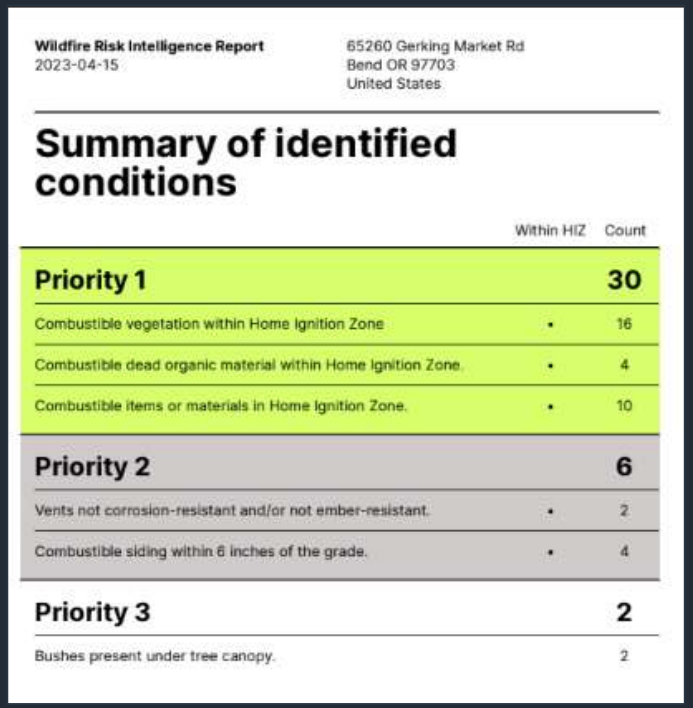
			Ability			Capacity		
Variable	Source	Item Detail	Vegetation to Vegetation	Vegetation to Structure	Structure to Structure	Vegetation to Vegetation	Vegetation to Structure	Structure to Structure
Type 1 Fire Engine	3.2	6 Type 1 Fire Engines	1.00	1.00	1.00	6.00	6.00	6.00
Type 2 Fire Engine	3.3	6 Type 2 Fire Engines	1.00	1.00	1.00	6.00	6.00	6.00
Type 3 Fire Engine	3.4	4 Type 3 Fire Engines	1.25	0.75	0.75	4.00	4.00	4.00
Type 4 Fire Engine	3.5	6 Type 4 Fire Engines	1.50	0.75	0.75	6.00	6.00	6.00
Type 5 Fire Engine	3.6	6 Type 5 Fire Engines	1.75	0.50	0.50	6.00	6.00	6.00
Type 6 Fire Engine	3.7	4 Type 6 Fire Engines	2.00	0.25	0.25	4.00	4.00	4.00
Type 7 Fire Engine	3.8	6 Type 7 Fire Engines	2.25	0.25	0.25	6.00	6.00	6.00
Type 1 Dozer	3.9	2 Type 1 Dozers	2.00	2.00		1.00	1.00	
Type 2 Dozer	3.10	2 Type 2 Dozers	1.75	1.75		1.00	1.00	
Type 3 Dozer	3.11	0 Type 3 Dozers	0.00	0.00		0.00	0.00	
Type 4 Dozer	3.12	0 Type 4 Dozers	0.00	0.00		0.00	0.00	
Support Type 1 Water Tender	3.13	1 Support Type 1 Water Tender	0.50	0.50	0.50	5.00	5.00	5.00
Support Type 2 Water Tender	3.14	0 Support Type 2 Water Tenders	0.00	0.00	0.00	0.00	0.00	0.00
Support Type 3 Water Tender	3.15	1 Support Type 3 Water Tender	0.50	0.50	0.50	1.00	1.00	1.00
Tactical Type 1 Water Tender	3.16	0 Tactical Type 1 Water Tenders	0.00	0.00	0.00	0.00	0.00	0.00
Tactical Type 2 Water Tender	3.17	0 Tactical Type 2 Water Tenders	0.00	0.00	0.00	0.00	0.00	0.00
Assigned Portable Radio	3.18	Yes	1.00	2.00	1.00			
Radio - Inteoperability - Auto Aid	3.19	Programmable w/ Auto-Aid Mobile	1.30	1.30	0.70			
Radio - Interoperability - Cross Group Scan	3.19	Interoperability with Cross Group Scan				3.00	3.00	3.00
Crew Size - Type 1 IHC	3.20	18 - 22 Type 1 IHC Crew Members	4.00	4.00	4.00	5.00	5.00	5.00
Crew Size - Type 2 IA	3.21	24 - 26 Type 2 IA Crew Members	2.00	2.00	2.00	15.00	15.00	15.00
Crew Size - Type 2	3.22	21 - 23 Type 2 Crew Members	1.00	1.00	1.00	10.00	10.00	10.00
Basic Training	3.23	(Page 10)	0.25	0.20	0.20			
Supervisory Training	3.24	(Page 11)	2.56	2.56	2.36			
Risk Reduction Programs	3.25	(Page 12)	4.00	4.00	4.00			
Self Component Rating			**31.61**	**26.31**	**20.76**	**79.00**	**79.00**	**77.00**

Capture key mitigation data at the parcel level

Technology can decrease cost and expand utility of on-the-ground inspections







Wildfire Risk Intelligence Report
2023-04-15

65260 Gerking Market Rd
Bend OR 97703
United States

Summary of identified conditions

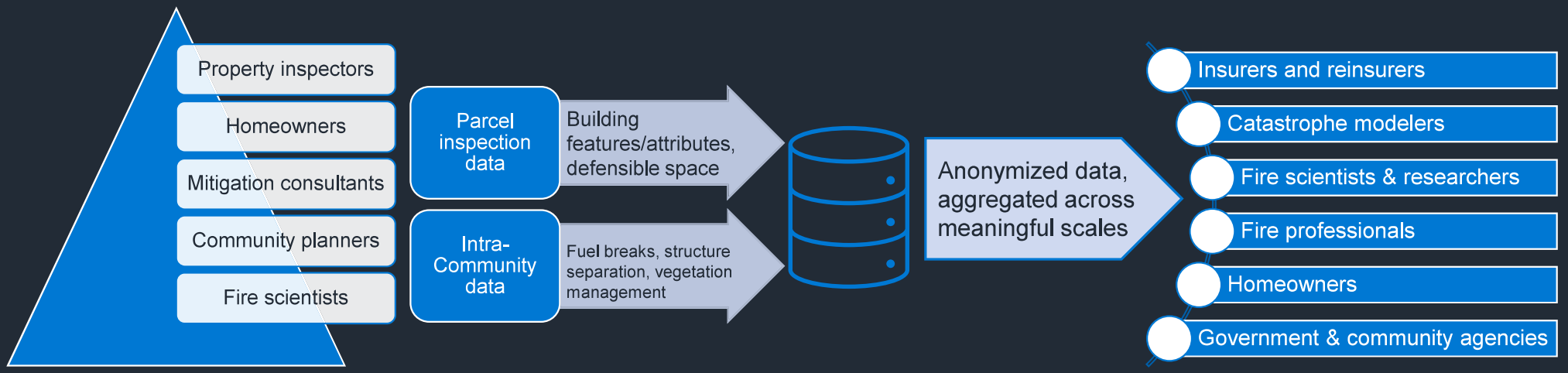
	Within HIZ	Count
Priority 1		**30**
Combustible vegetation within Home Ignition Zone	•	16
Combustible dead organic material within Home Ignition Zone.	•	4
Combustible items or materials in Home Ignition Zone.	•	10
Priority 2		**6**
Vents not corrosion-resistant and/or not ember-resistant.	•	2
Combustible siding within 6 inches of the grade.	•	4
Priority 3		**2**
Bushes present under tree canopy.		2

Enable data capture at scale across the community

The case for establishing a wildfire data commons

- Correlation of risk in community results in need for:
  - Community data to assess risk
  - Collective action to reduce risk
- Lack of recognition of mitigation actions undermines trust in cat models and insurers

WUI data commons conceptual layout



WUI data commons

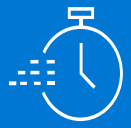
Desired key attributes

Consistent

Similar data collected across different platforms, geographic areas and time periods

Cost-beneficial

Cost to collect the data is reasonable vs. value for users

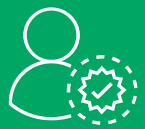


Current

Collected frequently enough to capture quickly changing conditions

Accurate

Auditable and verifiable



Secure

Database architecture will have robust measures to restrict use and access

Aggregatable

Will allow for views of risk at various geographic scales, to maximize usefulness by all parties

Wildfire Data Commons

Pilot underway with IBHS/Milliman

Phase 1 (current phase)

- Interview key stakeholders for input regarding parcel mitigation elements to be represented in the commons
- Develop initial data definition specification, listing critical variables, their attributes, and potential values

Future phases

- Develop and iterate data prototypes to inform interviews
- Conduct additional stakeholder interviews
- Develop conceptual data model
- Define data collection methodologies
- Define data standards
- Determine aggregation and summarization
- Establish data access and security
- Agree on ownership and control
- Define community risk classification standards and terminology

Insurance Institute for Business & Home Safety®

Example 2

Enhanced catastrophe model testing, transparency, training

Milliman

Catastrophe model treatment in rate review process

Regulatory practices vary widely among states, perils

Two levels of model review:

#1 Suitability for a given purpose

#2 Usage within a rate filing

Approved models based on scientific and technical review of catastrophe models

(a few other states piggyback on these reviews)

Questionnaires and case-by-case model validation

Approved models based on periodic reviews by outside experts

No model reviews

Prohibition on models

Challenges for regulators, model users

Why are traditional procedures falling short?

Rapidly increasing costs to insure and reinsure catastrophic risk

Proliferation and complexity of models/scores for different perils

No standardized output or disclosures for public comparison

Insufficient expertise and/or resources for comprehensive review

Calls for mitigation discounts

Use of models for RBC, climate disclosure

What would enhanced catastrophe model testing look like?

Could be done ad hoc or could establish a collective testing facility

Multi-disciplinary oversight panel

- Voluntary participation by state insurance regulators
- Other governmental agencies?
- Other stakeholders?

Third-party experts chosen by panel

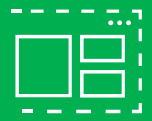
- Cross-disciplinary expert team would depend on nature of model

Scope

- Countrywide model review + state-specific questions
- Independent, centralized, rigorous process
- Model IP protection

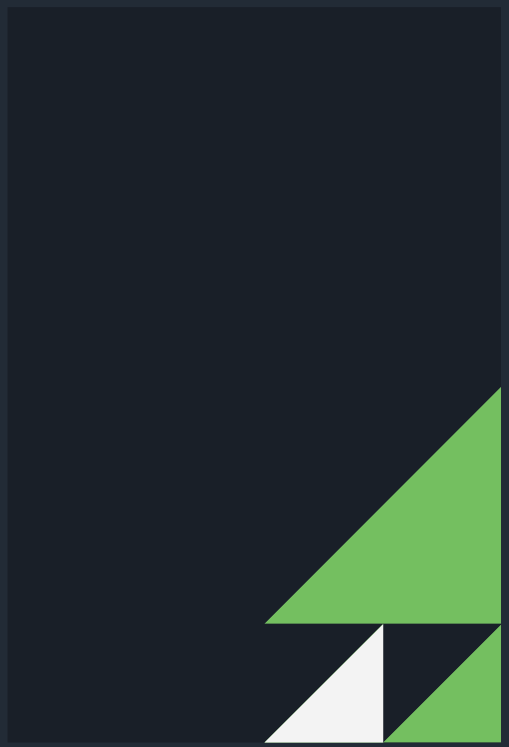
Comprehensive deliverables

- Standardized modeler disclosures
- Expert reports
- Model performance assessments
- State-specific output



Additional support for informed cat model usage

Need for all stakeholders to be better equipped & more confident



State filing requirements

- Accepted models for rate filings
- Streamlined checklist supporting model choice and use within filing
- Reduced duplication, effort, cost, time for insurers and regulators

Model training

- More rigorous training on model validation and use
- Attention to new users and use cases
- Scholarships for regulatory actuaries
- Evolve from “how to run the model” to “how to make decisions in the face of uncertainty”

Model standards and disclosures

- Need to expand outside Florida
- Standardized inputs, outputs, disclosures available to public
- Will need to be informed and embraced by model-building community

Critical elements

Minimum requirements for success

1

Widespread buy-in among regulators, insurers, modelers

2

Cost and time efficiency

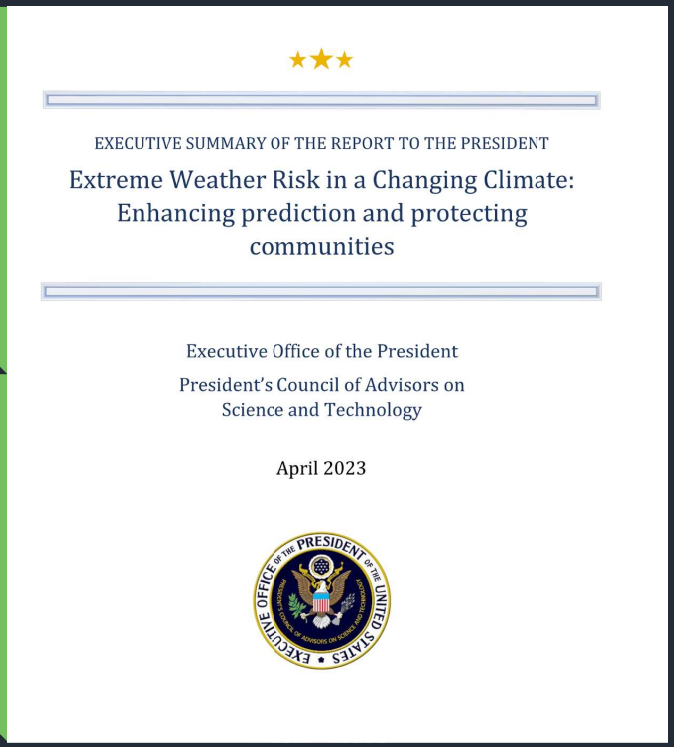
3

Flexibility to allow innovation and multiple perspectives

Related recommendations from federal government

Selected excerpts from President's Council of Advisors on Science and Technology report

"While a burgeoning industry is beginning to provide climate risk information, much of this is of questionable quality, either because it has not been transparently skill-scored to show that it can predict past events, or because it relies on methods that have been shown by the academic literature to have significant bias."



★★★

EXECUTIVE SUMMARY OF THE REPORT TO THE PRESIDENT

Extreme Weather Risk in a Changing Climate: Enhancing prediction and protecting communities

Executive Office of the President

President's Council of Advisors on Science and Technology

April 2023

- Inventory and release federal data to develop and test weather-hazard and hazard-loss models
- Develop guidelines for measuring the accuracy of weather-hazard and hazard-loss models
- Fund research on risk-assessment modeling systems to quantify the likelihood and economic costs of extreme weather events

https://www.whitehouse.gov/wp-content/uploads/2023/04/PCAST_Extreme-Weather-Report_April2023_Letter-ExecSumm.pdf

Q&A

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Thank you

Nancy Watkins

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Attachment B

Fairness and Transparency in Machine Learning, 2023 Auto Insurance Report Conference (April 2023)

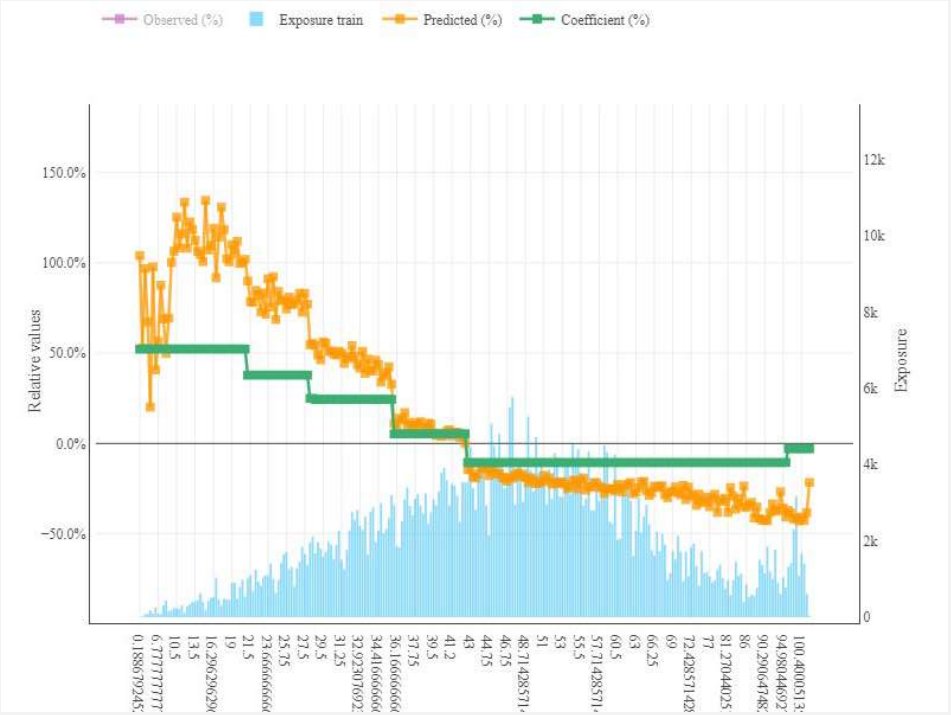
Beyond GLMs

Getting more accuracy with interpretability

Milliman

Approach 1: Automated GLMs/Generalized Additive Models (GAMs)

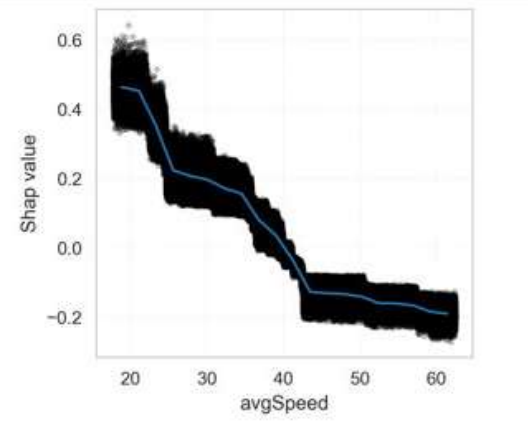
- Use machine learning to automate the generation of traditional GAMs and GLMs
- Advantages compared to traditional GLM:
  - Faster model build time
  - Higher predictive power
- Advantages compared to GBM:
  - Works well on smaller datasets
  - Glass-box models (inherently interpretable)

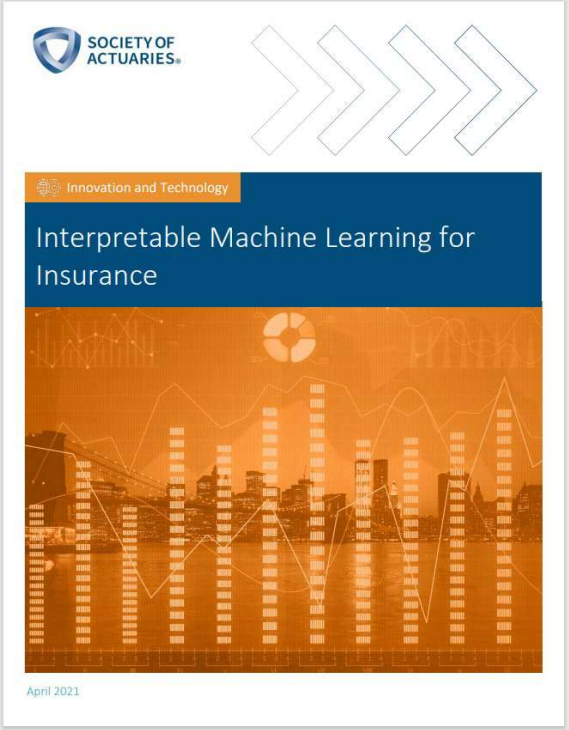


Approach 2: Machine Learning Model Explainers

Post-model techniques to provide insights into variable importance, relationship between predictor variables and model output, and interaction effects

Work with all types of models (GBM, NN, etc.)





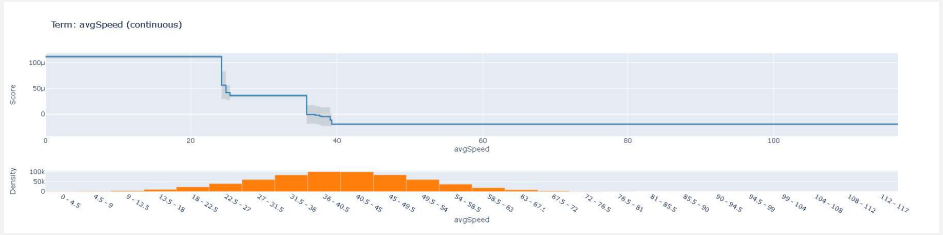
See also: NAIC Guidance for reviewing Random Forests

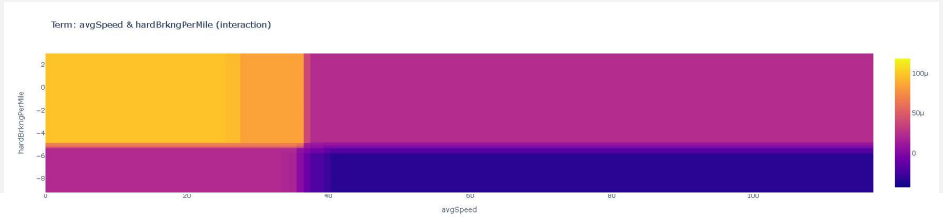
Approach 3: GA2M/Explainable Boosting Machines

GAMs that use GBMs for the splines

How it works:

- Iteratively trains sequence of trees on one feature at a time
- Summarize trees by feature to get exact relationship of predictors to output





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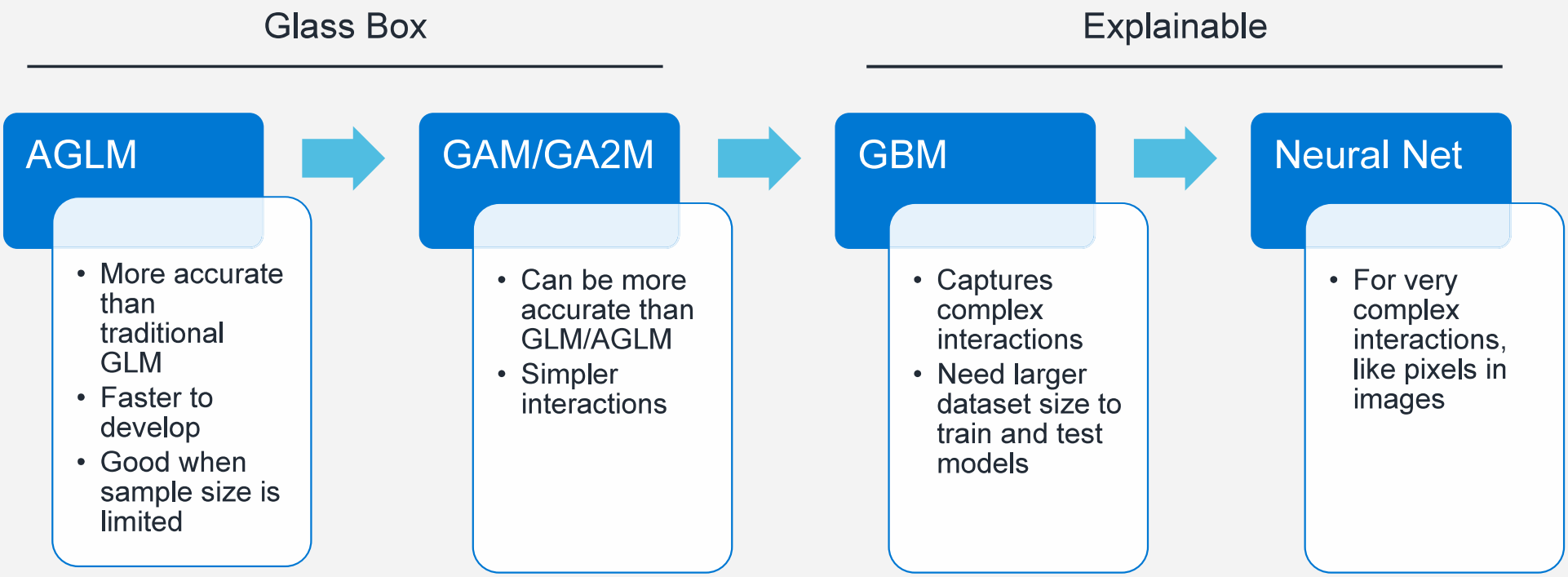
Summary



Consider the size of dataset, complexity of effects, and the intended use of the model