

Draft: 11/29/22

Innovation, Cybersecurity, and Technology (H) Committee and the  
NAIC/Consumer Liaison Committee  
Virtual Meeting  
October 14, 2022

The Innovation, Cybersecurity, and Technology (H) Committee met Oct. 14, 2022, in joint session with the NAIC/Consumer Liaison Committee. The following Committee members participated: Kathleen A. Birrane, Chair (MD); Evan G. Daniels, Co-Vice Chair (AZ); Dana Popish Severinghaus, Co-Vice Chair, represented by Erica Weyhenmeyer and C.J. Metcalf (IL); Karima M. Woods represented by Joselyn Bramble(DC); John F. King represented by Martin Sullivan (GA); Amy L. Beard represented by Jerry Ehlers and Meghann Leaird (IN); Chlora Lindley-Myers (MO); Troy Downing (MT); Jon Godfread represented by John Arnold and Chris Aufenthie (ND); Adrienne A. Harris represented by Seema Shah (NY); Judith L. French (OH); Elizabeth Kelleher Dwyer (RI); Carter Lawrence represented by Stephanie Cope (TN); Kevin Gaffney (VT); and Mike Kreidler (WA). The following Liaison Committee members participated: Andrew R. Stolfi, Chair (OR); Grace Arnold, Vice Chair (MN); Mark Fowler (AL); Elizabeth Perri (AS); Evan G. Daniels (AZ); Ricardo Lara represented by Ken Allen (CA); Andrew N. Mais (CT); Karima M. Woods represented by Joselyn Bramble(DC); David Altmaier (FL); Colin M. Hayashida (HI); Dean L. Cameron represented by Weston Trexler (ID); Vicki Schmidt represented by Brenda Johnson and Shannon Lloyd (KS); James J. Donelon represented by Nichole Torblaa (LA); Kathleen A. Birrane (MD); Anita G. Fox represented by Chad Arnold (MI); Chlora Lindley-Myers and Cynthia Amann (MO); Mike Chaney represented by David Browning (MS); Jon Godfread represented by John Arnold and Chris Aufenthie (ND); Chris Nicolopoulos represented by Christian Citarella (NH); Barbara D. Richardson (NV); Adrienne A. Harris represented by Seema Shah (NY); Judith L. French (OH); Michael Humphreys (PA); Scott A. White represented by Don Beatty (VA); Mike Kreidler (WA); Allan L. McVey (WV); and Nathan Houdek (WI). Also participating were: Jason Lapham (CO); Doug Ommen (IA); Sharon P. Clark (KY); Timothy N. Schott (ME); and Larry D. Dieter (SD).

1. Heard Presentations on Algorithmic Bias and Approaches Insurance Companies Are or Can Implement to Manage and Mitigate the Risk of Unintended Bias and Illegal Discrimination When Developing and Using AI/ML

Commissioner Birrane said the goal of the joint meeting is to continue the education of state insurance regulators on the topic of algorithmic bias. She said during the Summer National Meeting, the Committee had such a full agenda that there was no time to hear comments from interested parties, and she committed to holding an interim virtual meeting prior to the Fall National Meeting to provide that opportunity. At the Summer National Meeting, Commissioner Stolfi also ran short on time to hear all the presentations scheduled for the Liaison Committee, so it made sense to meet jointly to complete that work. Commissioner Birrane said this meeting would not only provide an opportunity to hear presentations, but it would also provide ample opportunity for interested parties to speak.

Commissioner Stolfi said he agrees, and he is looking forward to hearing these presentations and engaging in meaningful dialogue. He said this is consistent with the goals of the Committee to look for ways to be more engaged outside of national meetings. He said the group discussed and agreed to hold interim meetings and get more involved with other committees. He said this meeting is an example of following through on that.

a. NAMIC

Tony Cotto (National Association of Mutual Insurance Companies—NAMIC) said NAMIC is opposed to unfair discrimination of any kind, and he understands the pressures policymakers are under, but he urges caution as they pursue developing solutions and mitigation techniques to minimize bias. He said in insurance, fairness is determined by actuarial soundness and risk of loss. He said insurers price based on risk, and they should analyze inputs rather than outcomes other than loss ratios. He stressed the benefits of risk-based pricing, but he said NAMIC agrees that there needs to be common terms defined, and that should be done in statute; however, he stressed that this will be a massive undertaking but must be done because of the importance of getting this right and ensuring understanding. In addition, he said limiting accuracy does nothing to reduce the cost of coverage, and it hurts access, which is what really matters. He said the good news is that there are many benefits, including helping to educate and incentivize risk avoidance. He said the use of this data and algorithms can reduce the cost to consumers.

Cotto said industry's use of data and models is nothing new; state insurance regulators have the authority to ask questions and get explanations if needed, and disparate impact has no place in insurance law. He added that state insurance regulators should not embrace frameworks from other industries, as insurance is very different. He said it should be flexible, principle-based, tailored to insurance, and considering company size and complexity.

b. ACLI

Karen Melchert (American Council of Life Insurers—ACLI) said the first pillar of the ACLI's Economic Empowerment & Racial Equity Initiative is expanding access to financial products to underserved communities. She said new methods for doing this are raising some regulatory concerns around algorithmic accountability. She said the ACLI has been working on this since the NAIC adopted its Artificial Intelligence (AI) Principles back in 2020. She said the ACLI started looking at algorithmic accountability and began with identifying proxy discrimination within the context of insurance. She said the goals of the algorithmic accountability framework are: 1) identify any potential unfair discrimination from the use of algorithms; 2) preserve innovation within the industry; 3) maintain a holistic view of the relationship between new technologies and their use in underwriting; 4) maintain consistency with existing underwriting requirements; and 5) allow for flexibility to accommodate unique uses of algorithms across the industry.

Melchert said the ACLI suggests a principle-based risk management approach that embraces the following four areas: 1) governance process; 2) testing requirements; 3) reporting requirements related to governance and testing; and 4) documentation and attestations related to the governance, testing, and reporting processes. She said a principle-based approach benefits all stakeholders, including consumers and state insurance regulators, and this should be an ongoing dialogue between insurers and state insurance regulators. She said the ACLI has submitted this proposal to the Colorado Insurance Department and presented it during the SB21-169 Stakeholder Engagement Process meeting on July 8. She said it could be used for a draft bulletin or regulation. She said this proposal focuses on unfair discrimination based on race and proxy discrimination because it is the only protected class for which there is any chance to test for given data currently available. She said it is also focused on underwriting because that is the most important use case in terms of the life insurance business, but it could be used for others as well. She said it also addresses third parties, mentioning the need to be compliant in all cases, with the *Unfair Trade Practices Act* (#880). She went on to describe the pillars in more detail, noting that it can also be found on the website supporting the Colorado Stakeholder Engagement Process.

c. APCIA

David F. Snyder (American Property Casualty Insurance Association—APCIA) said the APCIA is very committed to this effort. He said the APCIA agrees with the NAIC on the need to collectively determine how to tackle concerns related to fairness and preventing unlawful discrimination while seeking improvements that strengthen competitive markets and addressing potential inequities while preserving the risk-based foundation of insurance. He said this requires a balanced approach that considers competitive issues and protects investments that benefit consumers. He said the narrative too often starts with the negative. He reviewed the key benefits of AI/machine learning (ML), noting more efficiently meeting customer expectations; more rapidly responding to, settling, and paying claims; more accurately and objectively assessing risk; and providing the ability to analyze company performance to improve product offerings, customer service, and compliance.

Snyder said definitions are very important and present a challenge to provide constructive responses when they are unclear. He said the general definition of “bias” does not consider long-standing legislated insurance regulatory and judicial standards. He said robust governance is very important and should be a priority as a critical foundational element to focus on, as well as the prominent role of human review and decision-making. He said it should be flexible, proportionate, scalable, and explainable. He said in testing for bias, the APCIA found a lack of bias but a firm adherence to risk-based pricing. He said when considering transparency, information regarding what, how, and to whom should be provided and considered. He reviewed the attributes put forth by the National Institute of Standards and Technology (NIST) and encouraged state insurance regulators to consider them.

Snyder said this area is already subject to legislated, regulatory, and judicial standards, and they should neither be expanded nor contracted based on using AI/ML for activities previously performed by humans. He said risk-based pricing should continue to rule the day, and courts have defined the elements related to disparate impact, so that should continue to be recognized. He said data on many of these classes sought to be protected is simply not available.

In conclusion, Snyder said the APCIA is committed to working constructively with the NAIC and state insurance regulators in their work on AI/ML: 1) there is a need for clear definitions; 2) governance is paramount; 3) it is important to avoid inhibiting beneficial uses of AI/ML and legislated regulatory standards; and 4) judicial decisions should be applied. He said the APCIA is committed to addressing systemic racism where it is evident, but using pricing mechanisms to do that does not address the underlying issues.

2. Heard Presentations on Algorithmic Bias and a Holistic Approach to Confronting Structural Racism in Insurance

a. CEJ

Birny Birnbaum (Center for Economic Justice—CEJ) reviewed the importance of insurance products as financial security tools for individuals and community economic development. He reviewed two types of discrimination—actuarial and protected classes. He also reviewed why race and protected class characteristics are carved out regardless of actuarial fairness, noting that historical discrimination has left a legacy of outcomes that are embedded in data used for actuarial analysis. He said addressing proxy discrimination is easy; the data are not predicting insurance outcomes, so they violate both the actuarial and protected class requirements for unfair discrimination.

Birnbaum said “intent” in structural racism and its impacts are often unrecognized, unintentional, and cannot be a determining factor. He provided several examples. He said algorithms learn bias in data and models, and the fact that an insurer does not see race in an algorithm does not logically or factually result in no discrimination on the basis of race, and the only way to eliminate it is to measure the impact by explicit consideration of race and other protected class factors. He said there are statistical techniques that enable testing for proxy discrimination and disparate impact. He said principle-based governance is essential but not sufficient, and the testing of outcomes is essential and must be done simultaneously.

Birnbaum defined these terms as:

- **Disparate Intent:** The intentional use of race.
- **Proxy Discrimination:** Disproportionate racial outcomes tied to the use of proxies for race, not to outcomes.
- **Disparate Impact:** Disproportionate racial outcomes tied to historic discrimination and embedded in insurance outcomes.

Birnbaum said while pricing and rating has gotten the most regulatory attention, it is imperative for insurers and state insurance regulators to test algorithms used in all aspects of the insurance life cycle for racial bias, expanding on the use of algorithms in marketing. He said it is important to do holistic testing and not just individual factors in isolation. In closing, he said the property/casualty (P/C) trades routinely seek to justify pricing freedom, noting the use of any data source or characteristic of the consumer, vehicle, property, or built or natural environment; i.e., if it is predictive of risk and more refined, the risk prediction is always better and more fair. He said this formulation is problematic for several reasons, making the following key points:

- The purpose of insurance is to create a risk pool through which individuals can transfer risk to that pool. Risk-based pricing is a means to manage that mechanism safely and fairly, but it is not the purpose of insurance.
- Testing for and addressing structural racism in insurance is 100% consistent with and improves risk- and cost-based practices.
- Unfettered risk-based pricing without attention to structural racism will reflect and perpetuate historic discrimination.

b. NFHA

Dr. Michael Akinwumi (National Fair Housing Alliance—NFHA) introduced himself and talked about what the NFHA does. He said the NFHA has published a framework for identifying and removing risks that are associated with algorithmic systems related to disparate impact and proxy discrimination. He said the NIST risk management framework could be used to manage identified risks by the auditing framework published.

Morgan Williams (NFHA) said the NFHA Tech Equity Initiative can be found on the NFHA’s website. He said compliance and regulatory oversight ultimately flow from the basis and scope of legal liability. He said the basis of civil rights causes of action involving a review of compliance principles of proxy testing and civil rights law prohibit policies and practices when there is evidence of disparate impact, intentional discrimination, and disparate impact that results in discriminatory outcomes. He said the NFHA focuses on disparate impact outcomes, such as facially neutral policy or practice, when the practice does not advance a legitimate business justification and the policy is not the least discriminatory means to advance that interest. He provided several examples of civil rights actions in insurance, and he reviewed civil rights management systems controls.

Dr. Akinwumi reviewed proxy testing control variables, the equation for rate-making using a generalized linear model (GLM), and how to mitigate for bias and discrimination using control variables. He said it introduces race as a control variable using a clustering technique and claims frequency and loss. He explained this technique in detail and the possible outcomes. He mentioned Bayesian Improved Surname Geocoding (BISG) as one of the techniques commonly used. He also said imageomics is also a brand of science that attempts to infer biological traits and biometrics from a person's image using ML techniques that use computer vision algorithms to infer gender and age.

c. Southern University Law Center and University of Connecticut School of Law

Peter Kochenburger (Southern University Law Center and University of Connecticut School of Law) said he wants to address a few points made by the industry presentations. He said it is often said that fairness in insurance is determined by actuarial fairness, but that is only one element in determining what is fair and not discriminatory. He said risk-based pricing is an important element, but it does not determine the regulatory structure (e.g., pre-existing conditions are not allowed to be used in health insurance plans). He said it is relevant, but there are other goals. He said secondly, industry says anything done should be within the existing regulatory framework, and it is already well regulated. He said that is not correct, and there is not a sufficient regulatory structure for this in place today, or we would not be having these discussions. He said the existing structure should be built upon, but we should not be confined to it, as it must evolve and respond to new things being introduced. He said there is a need to study and evaluate this area carefully, but the idea that everything must be defined and well understood before moving forward is simply not true and is merely a delay tactic. He stressed the need to move forward expeditiously or the development of the regulatory framework will fall to other regulatory bodies and be taken away from state insurance regulators.

3. Received Comments from Interested Parties

Brendan Bridgeland (CEJ) asked what steps industry has taken to prevent the duplication of risks by use of the same data elements in different data categories to prevent double counting. Birnbaum said that is handled through multi-variant analysis by simultaneously evaluating many factors and removing the correlation between them, so each factor is making a unique contribution.

Snyder said testing is fundamental and evolving. He said there is not a singular methodology, and industry is trying to see which best serves the purpose of determining what is socially acceptable. He said the key is accuracy regarding the testing methodologies, and all of this is under active consideration, but there is no one way to do this yet.

Michael DeLong (Consumer Federation of America—CFA) said there is a need for strong public input, but this work should not be delayed. If consensus cannot be achieved, the group should keep in mind that justice delayed is justice denied.

Dr. Akinwumi said when it comes to testing, looking at outcomes and loss ratios represents a retrospective look, whereas testing out variables and factors being used needs to happen before there are outcomes.

Melchert said it is important to have defined terms and a strong foundation, and it is not just a delay tactic. She said the ACLI has demonstrated that it wants to move forward, but definitions are important. Kochenburger said he did not mean to imply definitions are not important, but it would be a substantial undertaking to try to define everything and get consensus, which could take years and be an obvious delay tactic. Birnbaum said testing can take place by removing the correlative factor and seeing the outcome; industry already does this in their testing. Snyder said governance is improving, and the work with the NIST is noteworthy; industry shares concerns related to structural racism, and testing is important but complicated. Although, he said it is very important to get it right, and industry does not want to delay getting a framework in place for overseeing this space.

Having no further business, the Innovation, Cybersecurity, and Technology (H) Committee and the NAIC/Consumer Liaison Committee adjourned.

SharePoint/NAIC Support Staff Hub/Member Meetings/H CMTE/2022\_Fall/Interim Mtg101422\_Jt Consumer)H Cmte/Joint H Cmte\_Cons Liaison Minutes  
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## Draft Pending Adoption

Draft: 8/28/22

Innovation, Cybersecurity, and Technology (H) Committee  
Portland, Oregon  
August 10, 2022

The Innovation, Cybersecurity, and Technology (H) Committee met in Portland, OR, Aug. 10, 2022. The following Committee members participated: Kathleen A. Birrane, Chair (MD); Evan G. Daniels, Co-Vice Chair (AZ); Dana Popish Severinghaus, Co-Vice Chair (IL); Karima M. Woods (DC); John F. King (GA); Amy L. Beard (IN); Chlora Lindley-Myers (MO); Troy Downing (MT); Jon Godfread (ND); Adrienne A. Harris represented by Sumit Sud (NY); Judith L. French (OH); Elizabeth Kelleher Dwyer (RI); Carter Lawrence (TN); Kevin Gaffney (VT); and Mike Kreidler (WA). Also participating were: Cynthia Amann (MO); and Katie Johnson (VA).

### 1. Adopted its Spring National Meeting Minutes

Commissioner Birrane said the Committee met April 5.

Commissioner Downing made a motion, seconded by Director Popish Severinghaus, to adopt the Committee's April 5 minutes (*see NAIC Proceedings – Spring 2022, Innovation, Cybersecurity, and Technology (H) Committee*). The motion passed unanimously.

### 2. Adopted a Request for NAIC Model Law Development from the Privacy Protections (H) Working Group

Ms. Johnson, chair of the Privacy Protections (H) Working Group, presented the Working Group's Request for NAIC Model Law Development, noting that it will incorporate some aspects of the *NAIC Insurance Information and Privacy Protection Model Act* (#670) and the *Privacy of Consumer Financial and Health Information Regulation* (#672) into a new model. She said the concepts found in Model #670 and Model #672 need to be modernized considering changes to industry practices, and adopting this request will provide the appropriate next steps for discussing substantive issues regarding the appropriate privacy protections for the insurance marketplace.

Commissioner Godfread made a motion, seconded by Director Lindley-Myers, to adopt the proposed Request for NAIC Model Law Development (Attachment One). The motion passed unanimously.

### 3. Adopted the Reports of its Working Groups

#### A. Big Data and Artificial Intelligence (H) Working Group

Superintendent Dwyer said the Big Data and Artificial Intelligence (H) Working Group met July 14 and held a Collaboration Forum on Algorithmic Bias, which included a presentation from Scott Kosnoff (Faegre Drinker Biddle & Reath LLP) on different perspectives on artificial intelligence (AI) risk management and governance and a presentation from Eric Krafcheck (Milliman) on bias detection methods and tools. The Working Group also received reports from Workstreams One and Two. Workstream One is focusing on AI/machine learning (ML) surveys led by Commissioner Gaffney, and Workstream Two reported on its work focusing on determining the appropriate regulatory evaluation of third-party data and model vendors.

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### B. Cybersecurity (H) Working Group

Ms. Amann said the Cybersecurity (H) Working Group met July 14 and received an update on its work plan. She said the Working Group launched a volunteer group to draft a state insurance regulator survey, and the survey represents one of the Working Group's key deliverables to be completed. She said an initial survey has been drafted and updated, and it is expected to be sent to state insurance regulators in August. She said the Working Group also received an update on the implementation of the *Insurance Data Security Model Law* (#668), noting that 21 states have now adopted it. She said the Working Group also received an update on federal activity related to cybersecurity, the NAIC's cybersecurity tabletop exercises, and state insurance regulatory cybersecurity tools.

### C. E-Commerce (H) Working Group

Commissioner Downing said the E-Commerce (H) Working Group met May 26 and May 5 in regulator-to-regulator session, pursuant to paragraph 4 (internal or administrative matters of the NAIC or any NAIC member) of the NAIC Policy Statement on Open Meetings to plan steps to accomplish its 2022 charges. He said the Working Group has also been working to clarify and analyze the various issues raised by the states and industry in response to the e-commerce surveys that were sent out in late 2021. The survey was sent to the states asking what exceptions to state laws or regulations were implemented during the pandemic to allow e-commerce, electronic transactions, and electronic communications to take place when in-person methods were not possible. Commissioner Downing said at the same time, the survey was sent to industry asking the companies to identify regulations or regulatory practices related to any specific technologies, communications, transactions, or any other forms and methods of e-commerce that may currently impede their ability to conduct business electronically. Based on the survey results, the Working Group prepared a working framework that categorized identified issues related to e-signatures, e-notices, claims, policy, and a general "other" category.

Commissioner Downing said since developing the framework, various members of the Working Group volunteered to dig deeper into each of these topics to explore what options were offered by the states and industry via the survey; identify what actions, if any, have been taken by the states in relation to these topics; and identify potential solutions to any outstanding or otherwise remaining issues. He said the Working Group plans to complete the updated framework to reflect the work done by the Working Group volunteers and expose that document for review and comment in the next few weeks. He said the Working Group also plans to meet to discuss the framework and get feedback on its overall plan.

### D. Innovation in Technology and Regulation (H) Working Group

Director Daniels said the Innovation in Technology and Regulation (H) Working Group met May 25 to: 1) review its charges; and 2) outline its plan for the year, including quarterly meetings on various topics. He said the Working Group focused on various state approaches facilitating innovation across the country, including sandbox concepts and other strategies. He said presentations were provided by the District of Columbia, Illinois, and Wisconsin departments of insurance (DOIs); they were well received, and other approaches were discussed. He said the Working Group has plans to meet two more times in 2022 on topics related to innovation and technology in insurance.

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### E. Privacy Protections (H) Working Group

Ms. Johnson said the Privacy Protections (H) Working Group met three times in regulator-to-regulator session to review draft revisions to Sections 1–12 of Model #670, and it met twice in open meetings. She said during its June 15 meeting, the Working Group: 1) adopted its Spring National Meeting minutes; and 2) received comments on its draft revisions to Sections 1–2 of Model #670. She highlighted a few of the comments, noting that after considering these comments, the Working Group decided to clarify its direction and agreed to replace Model #670 and Model #672 with one new model. She said during its Aug. 9 meeting, the Working Group: 1) adopted its Aug. 2 minutes; 2) heard updates on state and federal privacy legislation; and 3) discussed next steps on the *Consumer Data Ownership and Use* white paper, the drafting of the new model, and the related work plan.

Commissioner Kreidler made a motion, seconded by Commissioner Godfread, to adopt the reports of the Big Data and Artificial Intelligence (H) Working Group (Attachment Two), the Cybersecurity (H) Working Group (Attachment Three), the E-Commerce (H) Working Group, the Innovation in Technology and Regulation (H) Working Group, and the Privacy Protections (H) Working Group (Attachment Four). The motion passed unanimously.

### 4. Received an Update on its Projects

#### A. ICT-Hub Concepts and Progress

Commissioner Birrane asked Scott Morris (NAIC) to provide an update on the Innovations, Cybersecurity, and Technology (ICT) Hub project intended to assist in fulfilling the Committee’s charge to coordinate the work of NAIC committees on issues related to innovation, technology, cybersecurity, and data privacy referred to as “Related Groups.” She said it is intended to provide a link to committee work pages, a summary of their relevant work, and a library of resources. She said this is intended to enable users to easily identify various workstreams and work products developed or being developed by different committees and groups at the NAIC.

Mr. Morris said the NAIC is working on this project and has gathered information and outlined use cases to define what the ICT-Hub should provide. He said the NAIC Communications Department has built a demo of the platform that was shared with Committee members after the Collaboration Forum on Algorithmic Bias on July 19. He said as part of implementing a new website, a content management platform will be a foundational component and will allow a smarter and more streamlined approach. He said it will benefit all NAIC committees and the website generally by allowing content to be tagged so that it can be presented on different pages or different topics. He provided some examples of what that might be and what it would include. He said the NAIC will start by building a taxonomy to classify the content, beginning with topics related to the Committee and then expand it from there. He said feedback was received, and staff will now go back to the Communications team to help build out a project timeline and costs. He said the project will take a more technology driven approach, but it is believed to be the best approach for the long term. He said there are plans to get something out in the interim that will be based on the more traditional platform in existence today.

#### B. Collaboration Forum on Algorithmic Bias Program and Kansas City Fly-In

Commissioner Birrane said she wants to clarify that the Collaboration Forum is not an event but a methodology. She said it is intended to bring different groups together to collaborate, and holding educational events as a part of the methodology is part of the process of bringing those groups together regarding a common topic to

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coordinate through the Collaboration Forum. She said it is a collaboration effort that we are calling a forum. She said the Committee is charged with collaborating and coordinating NAIC work on Committee topics, and most of that work can be done through communication with the Related Groups directly but recognizing that some topics are so big and substantial and cut across so many groups that it makes it important to collaborate to assure consistency and efficiency.

Commissioner Birrane said it became clear early on that there were many workstreams at the NAIC looking at the subject of unfair bias in algorithms and how AI/ML driven decisional systems can result in illegal discrimination, so this was the perfect subject for the first Collaboration Forum. She said it began in May, and as the Collaboration Forum evolved into regulator-to-regulator session, three areas of focus emerged:

1. The need to identify the Related Groups and ensure regular and ongoing communication about what each are doing and communicate regarding the ICT-Hub.
2. Providing foundational education to commissioners and other senior state insurance regulators to ensure a common foundation of understanding.
3. Work together to identify the common and foundational elements of regulatory oversight of AI use in insurance, including the development of a common vocabulary and the identification of regulatory tools.

Commissioner Birrane reviewed the progress made over the last few months, including hosting foundational education at the Commissioners' Mid-Year Roundtable, hosting a regulator-only Fly-In in Kansas City, holding Forum sessions during the Summer National Meeting at the Big Data and Artificial Intelligence (H) Working Group meeting, and continuing that with a session after the Committee meeting. She said there will be other public sessions held on particular "use cases" put on by the other workstreams in the future.

Having no further business, the Innovation, Cybersecurity, and Technology (H) Committee adjourned into the Collaboration Forum on Algorithmic Bias session.

### 5. Held the Collaboration Forum on Algorithmic Bias

Commissioner Birrane introduced the presenters for the Collaboration Forum on Algorithmic Bias session. She said the topic is, "Approaches Companies Are or Can Implement to Manage and Mitigate the Risk of Unintended Bias and Illegal Discrimination When Developing and Using AI/ML," and she introduced each of the presenters.

Dale Hall (Society of Actuaries—SOA) talked about the SOA's Ethical & Responsible Use of Data & Predictive Models Certificate Program. He said it is designed for state insurance regulators, actuaries, data scientists, and others who work in the insurance profession; the full program was released in 2021, and an executive version is being developed. He said the focus is on an ethical framework. It is based on a set of principles, which are then applied in practice; provides a way to organize data processes and analyze a given situation; facilitates the ability to have checkpoints and ask important questions; and suggests different approaches to frameworks that may have the same core intentions.

Mr. Hall said the three main points of the program are to promote: 1) fairness, ensuring it is equitable, avoids bias, gives thought to social considerations; 2) safety, ensuring the data is robust, useful, meets privacy standards, a technically sustainable model, and accurate; and 3) transparency and accountability, ensuring it is well documented, explained, communicated, and interpreted well, and there is accountability in terms of who owns it and will be answering questions regarding it and its use. He said highlighted in the process is gathering the data

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and developing the initial models, avoiding bias, and understanding how various modeling approaches relate to the framework. He talked about the need to ensure that models are fair and avoid disparate impact and treatment and unintended discrimination. He said potential approaches to doing this might include collecting protected data to ensure the model does not discriminate and require direct causal relationships.

Mr. Hall said the program also includes model safety and governance. He said this follows generally accepted enterprise risk management (ERM) principles that actuaries are already very involved in and work with auditors and others in the company to ensure it is well understood who owns and manages the processes. He said being able to explain the model is very important and should be a strong and simple explanation. He said there is an ongoing responsibility to ensure feedback and control after deployment.

Tulsee Doshi (Google and Lemonade) presented on today's approaches to algorithmic bias. She reviewed different ways AI is being used across the world, including helping the industry to determine risk, detect fraud, and many other things showing it has many benefits even if it also has risks. She said the question is, how to balance those benefits against the risks while still being intentional about the other effects. She said human biases affect the way products affect the world, and she provided examples. She said humans are at the center of creating bias, and that it is not unique to AI, but AI is likely to exacerbate the problem. She said it is not necessarily an issue of equality or providing everyone with the exact same thing but of equity; i.e., providing the same, yet reducing the risk of higher risk areas and communities. She said fairness is a little bit of both. She reviewed the components of developing the models, and she said it is important to have governance and responsibility built into each one. She said human bias can be introduced at each stage. She emphasized that it is important to be intentional in mitigating these biases and document each stage and that humans continue to be in the loop.

Ms. Doshi said because ML uses and users are so diverse, ML fairness concerns can take many different forms, and she provided examples. She said the problems do not look the same; therefore, you must understand the context, user, and use case to understand how bias may manifest itself, which dictates the metrics and what will need to be done to solve for it; therefore, the solutions will be different. She said the approach will need to include establishing the problem with a diverse set of users in mind, collecting data across the user base, defining fairness opportunities, testing, designing mitigation approaches, and monitoring. She said across all of this is developing and growing an inclusive workforce and bringing in diverse perspectives. She talked about the concept of a uniform loss ratio and talked about model cards as methods for detecting bias and providing transparency. She said face detection model cards are an example of something that is growing across the industry in terms of a standardized way to provide transparency around models.

Ms. Doshi identified three important challenges in solving for bias: 1) the need to have class attributes to test for them; 2) it is often hard to collect enough data, as is the case with claims; and 3) even once identified, it can take time to resolve bias issues. She said it is also important to ensure new bias is not created when trying to improve for the first identified bias issue.

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Daniel Schwarcz (University of Minnesota) covered understanding the risk of biased AI in general and in insurance and how limiting it requires the initial step of testing for disparate impact. He said there is no effective understanding of potential bias unless testing the outcomes of the model. He said he would focus on the ML aspect of AI, which is based on massive amounts of historic training data and bias in statutorily protected groups. He provided several examples of bias against protected groups in AI models, including a Correctional Offender Management Profiling for Alternative Sanctions (COMPAS) algorithm that disproportionately over-predicted recidivism for blacks and underpredicted it for whites, Amazon's hiring algorithm that discriminated against women, and Optum's health algorithm that directed resources disproportionately to white individuals. He said one must not only look at the results but why those results are being presented.

Mr. Schwarcz said he did not believe a lot of insurers were using AI and ML in underwriting or rating, but he said it is in flux and they are on the precipice of doing this. He said the issue or proxy discrimination is when a protected attribute is predictive of risk but is illegal to be used. However, it is often predictive of claims, but whatever the reason, those attributes are not allowed to be used. The ML will develop proxies for those attributes because it is predictive of risk. Mr. Schwarcz said the examples of models behaving with disparate impact have been identified by testing. He said there is no other way to determine if there is bias in algorithms other than to test them, and he said insurers should be explicitly allowed to collect this data to do this testing. He said he recognizes that disparate impact may not represent a legal or regulatory problem, but that is where the inquiry should begin even if it does not create liability or necessarily indicate a problem. He said this is the first step, but there are a lot of additional difficult steps to take and testing is critical to having an effective regulatory regime.

Commissioner Birrane thanked the presenters, and she said to send questions to NAIC staff if one is a state insurance regulator, and for interested parties, there will be a Committee meeting set up to provide an opportunity to speak on this topic.

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*Virtual Meeting*  
*(in lieu of meeting at the 2022 Fall National Meeting)*

**CYBERSECURITY (H) WORKING GROUP**

Tuesday, November 15, 2022

2:00 – 3:00 p.m. ET / 1:00 – 2:00 p.m. CT / 12:00 – 1:00 p.m. MT / 11:00 a.m. – 12:00 p.m. PT

**Meeting Summary Report**

The Cybersecurity (H) Working Group met Nov. 15, 2022. During this meeting, the Working Group:

1. Adopted its Oct. 11 Minutes, which included the following action:
  - A. Adopted its Summer National Meeting minutes.
  - B. Heard an update on international work related to cyber.
  - C. Adopted the “Summary of Cybersecurity Tools” memorandum.
  - D. Received an update on the cybersecurity workstreams document.
  
2. Heard a presentation from the Cybersecurity and Infrastructure Security Agency (CISA) on its work on cybersecurity and how state insurance regulators can support that work. The discussion included the following items:
  - A. CISA will be evaluating its responsibilities under the federal Cyber Incident Reporting for Critical Infrastructure Act of 2022 (CIRCA). CISA is considering and seeking input from industry on who should be considered to be critical infrastructure and therefore a covered entity, the threshold for covered incidents, and the information CISA should gather as part of cybersecurity incidents.
  - B. CISA published cybersecurity performance goals (CPGs), which are voluntary cybersecurity practices intended to help those deemed to be critical infrastructure, especially small and medium-sized organizations.
  - C. CISA developed a program called Shield’s Up, which provides industry with a series of steps a company should take to mitigate cybersecurity risk specifically in response to the U.S.’ support for Ukraine and Russia’s potential for a cybersecurity response.

Draft: 10/20/22

Innovation in Technology and Regulation (H) Working Group  
Virtual Meeting  
September 14, 2022

The Innovation in Technology and Regulation (H) Working Group of the Innovation, Cybersecurity, and Technology (H) Committee met Sept. 14, 2022. The following Working Group members participated: Evan G. Daniels, Chair (AZ); Dana Popish Severinghaus, Co-Vice Chair, and C.J. Metcalf (IL); Judith L. French and Lori Barron, Co-Vice Chairs (OH); Erick Wright and Yada Horace (AL); Lucy Jabourian (CA); George Bradner (CT); Dana Sheppard (DC); Tim Li (DE); Weston Trexler (ID); Brenda Johnson and Shannon Lloyd (KS); Alexander Borkowski and Kory Boone (MD); Leah Piatt (ME); Chad Arnold (MI); Carrie Couch (MO); Andy Case and Ryan Blakeney (MS); Chris Aufenthie and Colton Schulz (ND); Connie Van Slyke (NE); Jennifer Catechis (NM); Aeron Teverbaugh and TK Keen (OR); Shannen Logue (PA); Nancy Clark (TX); Eric Lowe (VA); Timothy Cornelius, Jennifer Stegall, Jody Ullman, and Rebecca Rebholz (WI); and Juanita Wimmer (WV).

1. Heard Presentations from Boost Insurance and Degree Insurance on Innovation Collaboration with State Insurance Regulators

Director Daniels said the presentations from Boost Insurance and Degree Insurance will focus on how state insurance regulators have facilitated innovation in insurance over the last several years. He said the last Working Group meeting emphasized different approaches three states have taken, such as sandboxes and the use of existing laws, to allow state insurance regulators some flexibility in addressing new ideas. He said that meeting was an inward focus on how state insurance regulators are thinking about these approaches, and this meeting is an outward focus on companies' experiences in working with states on innovation.

Dennis Murashko (Degree Insurance) said his company has built a new product that did not previously exist in the market that guarantees students make money after college. He said his company sells insurance products to colleges and universities that then offer coverage to incoming freshmen. He said that coverage ensures a certain salary level, and Degree Insurance would cover the difference if the graduate is not making the guaranteed salary after five years. He said there is not another product like this on the market, and it is difficult for state insurance regulators to see how this product performs since claims are 10 to 12 years delayed from when the policy is sold.

Mr. Murashko said Degree Insurance began its regulatory process in Illinois because it has a particularly innovative insurance department. He said by having a regulatory guide, much of the complexity of regulation gets reduced to a checklist of a couple dozen items. He said the checklist makes the process much easier from an industry perspective, especially in innovative companies where the founders and employees are not necessarily coming from an insurance background. He said Illinois state insurance regulators made it easy for Degree Insurance to price its products in a way that made it easier to satisfy risk-based capital (RBC) compliance. He said additionally, Illinois worked with Degree Insurance and the NAIC to determine which line of business this new product would be filed under. He said after a positive regulatory experience with the Illinois Department of Insurance (DOI), Degree Insurance expanded into other states where it met the regulatory requirements. He said Degree Insurance also meets the requirements of the industrial insured exemption in many states, which allows it to have a sales channel in certain states while working with state insurance departments to become an admitted carrier of an innovative insurance product.

Mr. Murashko said a positive outcome of a state insurance department being open to innovation is working to promote innovation and protecting consumers. He said Degree Insurance looked at states with sandboxes, but it ultimately decided that was not the best approach for them and instead chose to take the path of the traditional approval process. He said even in states where Degree Insurance cannot yet file, it is important to have open conversations with state insurance regulators that set the groundwork for a smoother process in the future.

Jeremy Deitch (Boost Insurance) said his company is focused on digital distribution, empowering any company to engage with its customers and increase its sales by offering insurance through its own digital experience. He said Boost Insurance is an insurance infrastructure platform that packages compliance, capital, operational, and technical components of an insurance program and puts them together into a turnkey white label solution.

Mr. Deitch said when thinking about bringing innovative products to the market, there is the need to protect consumers using modern technology and the need for insurers to write profitable business. He said any company that is trying to take a technology-forward approach should create and maintain a vital translation layer between stakeholders. He said that happens internally when building products, and it happens externally in open conversations between companies and state insurance regulators. He said these are the things that foster innovation and, ultimately, regulatory approval. He said innovative companies should be able to explain the what and the why behind their utilization of new technology and innovative datasets.

Mr. Deitch said there needs to be a change in the mindset of how companies are viewing the regulatory review and approval process. He said instead of viewing it as a hurdle, companies should look at the process as something that will ultimately create the best product. He said if both state insurance regulators and companies can look at where the other party is coming from, it will lead to moving innovation forward. He said commissioners are putting together initiatives that are vital for fostering innovation, and the enthusiasm behind these initiatives needs to trickle down to front line reviewers.

Mr. Deitch said Boost Insurance has found that proactive approaches to innovation from state insurance regulators have been the most beneficial thing in terms of understanding what the regulations are and how they apply to the specific product. He said open communication before a company has begun regulatory filings is important. He said one example of this was a product that had an innovative approach to underwriting. He said sitting down with states and their actuaries, reviewing the product, and talking through issues that might lead to a disapproval was a proactive step.

Director Daniels asked how easy it was to find the right people in the insurance departments to discuss innovative ideas. Mr. Murashko said it was quite easy after talking with many different people at NAIC meetings and industry gatherings. He said on top of meeting state insurance regulators at these events, others in the industry that have been in the innovation space can lead newer companies to the right people. He said he would like to see the innovation contacts list maintained by the NAIC updated more frequently and possibly broken out by contacts for certain issues within the regulatory process. Mr. Deitch agreed that having separate contacts for more granular issues would help in speeding up response time and moving the process forward more quickly.

Director French asked if either company could put a time frame on their acceptable length of time to hear back from regulatory inquiries. Mr. Deitch said it would depend on the situation, but he would expect some a response within 30 days. He said companies need to be flexible and cognizant that state insurance regulators are not working on the same timeline as companies when they are trying to push out a new product.

Director Daniels asked both presenters to address pain points they have come across in the regulatory process. Mr. Deitch said there can sometimes be a sense of treating all filings the same and not evolving the review process or the application of statutes as innovative products come into the market. Mr. Murashko agreed, and he said in terms of Degree Insurance's product, some seasoning requirements in states could not apply to the product because even after two or three years, states would not have claim activity to review. He said in those instances, it would be more helpful to look at the product as a whole instead of just applying standard length of seasoning requirements.

Mr. Trexler asked Mr. Deitch why Boost Insurance took the route of becoming a managing general agent (MGA) rather than an insurance carrier. Mr. Deitch said Boost Insurance operates with delegated authority and handles filings on behalf of carriers and reinsurers. He said even as an MGA, Boost Insurance has some of the same regulatory hurdles that it is navigating on behalf of carriers.

Having no further business, the Innovation in Technology and Regulation (H) Working Group adjourned.

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**PENDING**

**PRIVACY PROTECTIONS (H)  
WORKING GROUP REPORT**

**PENDING**

**BIG DATA AND ARTIFICIAL  
INTELLIGENCE (H)  
WORKING GROUP REPORT**

Draft: 11/21/22

*Adopted by the Executive (EX) Committee and Plenary,*

*Adopted by the Innovation, Cybersecurity, and Technology (H) Committee,*

## **2023 Proposed Charges**

### **INNOVATION, CYBERSECURITY, AND TECHNOLOGY (H) COMMITTEE**

The mission of the Innovation, Cybersecurity, and Technology (H) Committee is to: 1) provide a forum for state insurance regulators to learn and have discussions regarding: cybersecurity, innovation, data security and privacy protections, and emerging technology issues; 2) monitor developments in these areas that affect the state insurance regulatory framework; 3) maintain an understanding of evolving practices and use of innovation technologies by insurers and producers in respective lines of business; 4) coordinate NAIC efforts regarding innovation, cybersecurity and privacy, and technology across other committees; and 5) make recommendations and develop regulatory, statutory, or guidance updates, as appropriate.

#### **Ongoing Support of NAIC Programs, Products, or Services**

1. The **Innovation, Cybersecurity, and Technology (H) Committee** will:
  - A. Provide forums, resources, and materials for the discussion of insurance sector developments in cybersecurity and data privacy to educate state insurance regulators on how these developments affect consumer protection, insurer and producer oversight, marketplace dynamics, and the state-based insurance regulatory framework.
  - B. Discuss emerging issues related to cybersecurity, including cybersecurity event reporting and consumer data privacy protections. Monitor and advise on the cybersecurity insurance market, including rating, underwriting, claims, product development, and loss control. Report on the cyber insurance market, including data reported within the Cybersecurity Insurance and Identity Theft Coverage Supplement.
  - C. Coordinate with various subject matter expert (SME) groups on insurer and producer internal cybersecurity. Discuss emerging developments; best practices for risk management, internal control, and governance; and how state insurance regulators can best address industry cyber risks and challenges. Work with the Center for Insurance Policy and Research (CIPR) to analyze cybersecurity-related information from various data sources.
  - D. Provide forums, resources, and materials for the discussion of innovation and technology developments in the insurance sector, including the collection and use of data by insurers, producers, and state insurance regulators, as well as new products, services, and distribution platforms. Educate state insurance regulators on how these developments affect consumer protection, data privacy, insurer and producer oversight, marketplace dynamics, and the state-based insurance regulatory framework.
  - E. Discuss emerging technologies and innovations related to insurance and insurers, producers, state insurance regulators, licensees, or vendors, as well as the potential implications of these technologies for the state-based insurance regulatory structure—including reviewing new products and technologies affecting the insurance sector and their associated regulatory implications.

- F. Consider and coordinate the development of regulatory guidance and examination standards related to innovation, cybersecurity, data privacy, the use of big data and artificial intelligence (AI) including machine learning (ML) in the business of insurance, and technology, including drafting and revising model laws, white papers, and other recommendations as appropriate. Consider best practices related to cybersecurity event tracking and coordination among state insurance regulators, and produce guidance related to regulatory response to cybersecurity events to promote consistent response efforts across state insurance departments.
  - G. Track the implementation of and issues related to all model laws pertaining to innovation, technology, data privacy, and cybersecurity, including the *Insurance Data Security Model Law* (#668), the *NAIC Insurance Information and Privacy Protection Model Act* (#670), the *Privacy of Consumer Financial and Health Information Regulation* (#672), and the *Unfair Trade Practices Act* (#880) rebating language and providing assistance to state insurance regulators as needed.
  - H. Coordinate with other NAIC committees and task forces, as appropriate, and evaluate and recommend certifications, continuing education (CE), and training for regulatory staff related to technology, innovation, cybersecurity, and data privacy.
  - I. Follow the work of federal, state, and international governmental bodies to avoid conflicting standards and practices.
2. The **Big Data and Artificial Intelligence (H) Working Group** will:
- A. Research the use of big data and AI including ML in the business of insurance, and evaluate existing regulatory frameworks for overseeing and monitoring their use. Present findings and recommendations to the Innovation, Cybersecurity, and Technology (H) Committee including potential recommendations for development of model governance for the use of big data and AI including ML for the insurance industry.
  - B. Review current audit and certification programs and/or frameworks that could be used to oversee insurers' use of consumer and non-insurance data and models using intelligent algorithms including AI and in alignment with the NAIC AI Principles. If appropriate, issue recommendations and coordinate with the appropriate SME committees on the development of or modifications to model laws, regulations, handbooks, and regulatory guidance regarding data analysis, marketing, rating, underwriting and claims, regulation of data and model vendors, regulatory reporting requirements, and consumer disclosure requirements.
  - C. Assess data and regulatory tools needed for state insurance regulators to appropriately monitor the marketplace, and evaluate the use of big data, algorithms, and ML, including AI/ML in underwriting, rating, claims, and marketing practices This assessment shall include a review of currently available data and tools, as well as recommendations for development of additional data and tools, as appropriate. Based on this assessment, propose a means to include these tools in existing and/or new regulatory oversight and monitoring processes to promote consistent oversight and monitoring efforts across state insurance departments.
3. The **E-Commerce (H) Working Group** will:
- A. Examine e-commerce laws and regulations and work toward meaningful, unified recommendations. The Working Group will also examine whether a model bulletin would be appropriate for addressing some of the identified issues and draft a proposed bulletin if determined appropriate.

4. The **Cybersecurity (H) Working Group** will:
  - A. Monitor cybersecurity trends such as vulnerabilities, risk management, governance practices, and breaches with the potential to affect the insurance industry.
  - B. Interact with and support state insurance departments responding to insurance industry cybersecurity events.
  - C. Promote communication across state insurance departments regarding cybersecurity risks and events.
  - D. Oversee the development of a regulatory cybersecurity response guidance document to assist state insurance regulators in the investigation of insurance cyber events.
  - E. Monitor federal and international activities on cybersecurity engaging on efforts to manage and evaluate cybersecurity risk.
  - F. Coordinate NAIC committee cybersecurity work, including cybersecurity guidance developed by the Market Conduct Examination Guidelines (D) Working Group and the Information Technology (IT) Examination (E) Working Group.
  - G. Advise on the development of cybersecurity training for state insurance regulators.
  - H. Work with the CIPR to receive updates on cybersecurity research efforts, by the CIPR and others, and to analyze publicly available cybersecurity-related information.
  - I. Support the states with implementation efforts related to the adoption of Model #668.
  
5. The **Privacy Protections (H) Working Group** will:
  - A. Use state insurance privacy protections regarding the collection, data ownership and use rights, and disclosure of information gathered in connection with insurance transactions to draft a new Privacy Protections Model Act to replace NAIC models, such as Model #670 and Model #672.
  - B. Develop a research paper on state insurance privacy protections regarding the collection, data ownership and use rights, and disclosure of information gathered in connection with insurance transactions that states can use to support their implementation efforts related to the adoption of the new *Privacy Protections Model Act* (#674).
  
6. The **Innovation in Technology and Regulation (H) Working Group** will:
  - A. Develop forums, resources, and materials for discussing innovation and technology regarding companies, producers, state insurance regulators, and licensees relevant to the state-based insurance regulatory structure, including new products, services, business models, and distribution mechanisms.
  - B. In conjunction with NAIC staff, explore developing a forum that provides insurers or third parties working with insurers the opportunity to confidentially brief state insurance regulators regarding innovation and technology applications, tests, use cases, and results.
  - C. Identify and discuss regulatory models or programs that may assist state insurance regulators to identify and better understand innovation taking place within the insurance industry.
  - D. Monitor innovation work occurring in other NAIC letter committees, task forces, and working groups, and identify areas of possible coordination for the Innovation, Cybersecurity, and Technology (H) Committee.

NAIC Support Staff: Denise Matthews/Scott Morris

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