

Date: 7/29/20

*2020 Summer National Meeting  
Virtual Meeting*

**ACCELERATED UNDERWRITING (A) WORKING GROUP**

**Friday, July 31, 2020**

**11:00 a.m. – 12:00 p.m. ET / 10:00 – 11:00 a.m. CT / 9:00 a.m. – 10:00 a.m. MT / 8:00 – 9:00 a.m. PT  
WebEx Event**

**ROLL CALL**

Robert H. Muriel, Chair	Illinois	TBD	Nebraska
Grace Arnold, Vice Chair	Minnesota	Ross Hartley	North Dakota
Peg Brown	Colorado	Jillian Froment/ Lori Barron	Ohio
Russ Gibson	Iowa	Elizabeth Kelleher Dwyer	Rhode Island
Rich Piazza	Louisiana	Annalisa Gellerman	Washington
Cynthia Amann	Missouri	Mark Afable	Wisconsin

**AGENDA**

1. Consider Adoption of its Mar. 12, Feb. 20, Feb. 2 and Jan. 23 and 2019 Fall National Meeting Minutes  
—*Director Robert H. Muriel (IL)*
2. Hear presentation on Working Group’s progress—*Director Robert H. Muriel (IL) and Vincent Tsang (IL)*
3. Discuss Any Other Matters Brought Before the Working Group—*Director Robert H. Muriel (IL)*
4. Adjournment

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Draft: 5/26/20

Accelerated Underwriting (A) Working Group  
Conference Call  
March 12, 2020

The Accelerated Underwriting (A) Working Group of the Life Insurance and Annuities (A) Committee met via conference call March 12, 2020. The following Working Group members participated: Robert H. Muriel, Chair, Mike Chrysler, Bruce Sartain, Fred Moore, Vincent Tsang and Litza Mavrothalasitis (IL); Grace Arnold, Vice Chair, Fred Andersen and John Robinson (MN); Jason Lapham (CO); Russ Gibson and Lindsay Bates (IA); Rich Piazza (LA); Chris Aufenthie and Ross Hartley (ND); Sarah Neil (RI); Lichiou Lee and David Hippen (WA); and Mark Afable, Barbara Belling, Susan Ezalarab, Diane Dambach, Rebecca Rebholz, Mary Kay Rodriguez, Renee Fabry and Richard Wicka (WI). Also participating were: Katherina Hrouda, Perry Kupferman and Pam O'Connell (CA); Wanchin Chou (CT); Jo McGill (ID); Karl Knable (IN) Brenda Johnson and Barbara Torkelson (KS); Renee Campbell (MI); Denise Lamy, Roni Karnis and Karen McCallister (NH); Peter Dumar and Todd Cafarelli (NY); Rachel Hemphill (TX); and Tomasz Serbinowski (UT).

1. Discussed Next Steps

Director Muriel reminded the Working Group and interested parties that the Spring National Meeting is cancelled and plans for having meetings via conference call are underway. He said he has been considering the best way for the Working Group to commence with the next phases of its work plan. He said one idea is to create two subgroups. One subgroup would be a drafting subgroup and another an NAIC Liaison Subgroup. He explained that the drafting subgroup would focus on synthesizing the information received in the presentations and making a recommendation to this Working Group about the type of work product to develop. He said the drafting subgroup could also propose a process for accomplishing the work product. He said the NAIC Liaison Subgroup could focus on ensuring that this Working Group is aware of the work undertaken by all other NAIC groups, past and present, that might be useful. He asked that people with feedback on the subgroups or interest in participating in either subgroup email Jennifer R. Cook (NAIC).

2. Heard Presentations

a. Accelerated Underwriting: Potential Data Collection Methods and Concerns

Director Muriel said the Working Group heard presentations from representatives from two Illinois law firms: Edelson PC and Foley & Lardner LLP. He introduced Shawn Davis (Edelson PC) as the Director of Digital Forensics with Edelson PC and an Adjunct Industry Professor with the Illinois Institute of Technology. Mr. Davis said he was going to focus his presentation on: 1) how consumer data is collected and users are tracked online; 2) issues that may be of concern with accelerated underwriting going forward; and 3) suggestions for possible guidelines or regulations.

Mr. Davis said there are two main types of data collection mechanisms: active data collection and passive data collection. He said active data collection occurs when a consumer knowingly gives information, usually filling out a survey, web registration forms, or social media postings. Passive data collection is running in the background, and it tracks consumers' activity through the use of cookies, IP addresses or MAC addresses, geolocation, browsers, and http headers. Mr. Davis said every time you click on a website, there are third parties that are automatically notified. He explained that his firm uses a network interception proxy to see background network traffic. He gave an example where, in 2018, he went to four websites and clicked on one link on each website, and 192 third parties were contacted by clicking on one link on four sites. He conducted this same test two and a half years later, and 347 third parties were notified.

There is a lot of information being collected and transmitted to third parties in which consumers have no idea. Almost all websites have third-party software code built in, like Google code, Facebook code or Adobe code. Each website will place a cookie on your computer to identify you, or it will read that cookie to see if it is you when you are looking at a site. Whatever pages you click on, the third parties know based on the cookies. Companies also track geolocation, and they are able to do so with a great deal of specificity so they can tell where you are and what you have looked at. This is collected from an app. Geolocation is also collected from people's devices. For example, if you turn on Google maps, Google sees everywhere you have gone. Apple phones also track geolocation, but they do not send the information back to Apple. Facebook also collects information, which is personally linked to you. Educational platforms also collect massive amounts of information in order to implement adaptive learning programs. Health information is another category of information that is collected and shared with third parties. For example, GoodRx provides discounts for prescription drugs, and it sends names of drugs selected for coupons

to Facebook. Mr. Davis said some telehealth apps also disclose medical information to third parties. Financial data is another category of data that is collected. Data is collected every time you swipe your credit card or use a mobile payment application. Then, there are financial transaction data aggregators like Yodlee and Mint. Mr. Davis said these companies provide a service that allows consumers to log on to their accounts and pull transactional data into a single application. Yodlee then sends “de-identified” data to clients to determine risk.

Mr. Davis explained that consumers cannot always trust that their data has been truly de-identified, and he explained that there is a difference between “de-identified” data and “anonymized” data. He explained that data can often easily be “re-identified.” He explained that there are direct identifiers, like name, social security number, driver’s license number, phone number, or email address. There are also indirect identifiers that do not identify someone on their own, but they may when combined; i.e., zip code, age and race. If data has been de-identified, all direct and indirect identifiers are removed from the data, but it contains a unique identifier. The original data collector has a link between the identifier and the identity of the people. The data purchaser does not have the link, and it cannot re-identify people. On the other hand, data is anonymized when all direct and indirect identifiers are removed, and there is no way for either the collector or the buyer to re-identify it. Mr. Davis said there is a false narrative that once information is “de-identified,” it cannot be used to identify people; but companies often remove direct identifiers, and indirect identifiers may remain. He said 87% of people in the U.S can be re-identified with only date of birth, gender, and zip code. He said re-identification of 90% of the people in the U.S. is possible with only four transactional data points from purchases, and both passive and active collectors often collect passive information, such as geolocation. He said an address can be determined from geolocation and a person can be identified.

Mr. Davis said the data is collected by data brokers, and Acxiom is the largest data broker. As of 2018, Acxiom collects over 5,000 data points across 700 million consumers worldwide. Mr. Davis shared some examples of the data points collected: socioeconomic status, economic stability, one of nearly 200 ethnic codes, religion, health interests, alcohol and tobacco interests, casino gaming and lottery interests, details about someone’s home, planning to have a baby, details about banking and insurance policies, media usage, credit card purchases, activities, relationship status, age, gender, education, employment, and number of children.

Mr. Davis said life insurers are starting to look at using data from data brokers to identify risky clients. He said insurers are starting to test mined data from shopping history, social media and magazine subscriptions to identify risky clients. He showed a slide used by a consulting company illustrating how marketing data can be used by life insurers to indicate eligibility for a preferred policy as opposed to additional underwriting. According to the consulting company’s infographic titled, “Can Marketing Data Predict Life Span?,” a sample potential customer “Sarah” is profiled. Sarah reads travel magazines, has good finances, bikes and runs, eats healthy food, and does not watch a whole lot of TV. Based on this profile, Sarah should be actively pursued for new business and retention, and the insurer should quickly issue her a preferred policy without additional underwriting. In contrast, a sample potential customer “Beth” is also profiled. Beth has a long commute, has had a bankruptcy, frequently eats at McDonalds, bought a treadmill, and watches a lot of TV. Based on this information, the recommendation is not to send Beth any offers, not to pursue aggressive retention efforts, and to collect more information to review before offering Beth a policy. Mr. Davis said another area is mailing lists. Mailing lists can be bought based on specific information. A purchaser can sort for information, like religion, ethnicity and income level to generate a leads list.

Mr. Davis discussed potential concerns with using this data. He explained that there is the Fair Credit Reporting Act (FCRA) that has jurisdiction over consumer reporting agencies’ (CRA’s) use of data. CRAs are companies whose primary purpose is to collect info and provide consumer reports. Under the FCRA, people have the right to be told if information in a consumer report is used against them in order to deny an application for insurance. Under the FCRA, consumers have the ability to request the data that a CRA possesses, including credit reports, and it provides consumers with the ability to dispute incorrect information. Under the FCRA, consumers are able to see everyone that has accessed their credit report. The FCRA has jurisdiction over 400+ CRAs, including credit bureaus and companies that screen tenants. However, the FCRA requirements do not apply to companies that are not CRAs. The new types of data that insurance companies are looking to use in accelerated underwriting, such as purchase data, web history data, geolocation from mobile apps, driver data from apps, facial and behavioral analytics, social media data, fitness data from wearables, electronic health records, and genetic data are not covered under the FCRA. Consumers do not have the right to be advised of any adverse action taken in reliance on this data, nor is there a mechanism to dispute potential inaccuracies. Mr. Davis said it is very difficult for insurance companies to know if this data is accurate. He gave several examples of the potential for non-FCRA data to be inaccurate. For example, he said an individual who purchases alcohol for clients in a sales job could incorrectly be added to an “alcoholic” profile in a data broker list. Another example is facial analytics that scans people faces to detect medical conditions or whether someone might be a smoker. Facial analytics may not detect plastic surgery, which could improve approvals for wealthy individuals or the facial analytics algorithm may incorrectly categorize a person as a smoker due to crow’s feet and under eye bags when they may be stressed or tired.

Wearable devices may inaccurately sense heart rate or oxygen levels and falsely categorize someone as a potential heart attack risk. Web use inaccuracies may result from search data or social media. Mr. Davis gave the example of a wife researching her husband's cancer or joining a network cancer group, resulting in the wife being added to a data broker cancer risk profile. Another example is mobile applications flagging an individual who frequently drives near medical offices as a risk due to mobile app geolocation data. Another example is posting a happy hour on Facebook and getting flagged as a potential alcohol abuser.

Mr. Davis said another concern is discrimination. He explained that insurance by nature discriminates based on things like health, age and gender. However, insurance should not discriminate based on an individual's race, religion or beliefs, national origin, employer, sexual orientation, geography or disability. It is possible that algorithms may inadvertently be causing additional medical underwriting at a higher rate for protected classes of people. Artificial intelligence (AI) and machine learning may make unintended decisions or adapt models without an insurance company realizing. Some examples of this include an algorithm that may inadvertently evaluate skin tone during facial analytics and flag race or an algorithm may flag minorities or LGBTQ persons due to the types of magazines read or TV shows and movies watched. An algorithm might also flag individuals as a risk due to geolocation data for an area that is tied predominantly to a particular race or national origin.

Based on the potential for inaccurate conclusions and inadvertent discrimination to be based on non-FCRA data, Mr. Davis suggests that state insurance regulators consider guidance or regulations for: 1) transparency of risk algorithms used to departments of insurance (DOIs); 2) prohibiting the use of non-FCRA data or requiring similar adverse action reports as required under the FCRA; 3) transparency to consumers when non-FCRA data is used; 4) auditing or evaluating new technologies, such as facial analytics and wearables, for accuracy; 5) ensuring that re-identification methods are not used for purchased data where consumers were originally told data was de-identified or anonymized.

b. Changing Legal Landscape: Privacy Developments

Jennifer Urban Rathburn (Foley & Lardner LLP) gave a presentation on privacy developments affecting the insurance industry. She explained that the current debate focuses on the merits of a comprehensive legal privacy regime versus allowing industry and companies to self-regulate. She said there is a strong trend towards more sweeping privacy legislation at the international, federal and state levels. Some examples include New York's cybersecurity regulation for financial services companies (23 NYCRR 500), the European Union's (EU's) General Data Protection Regulation (GDPR), Nevada's privacy law, and the California Consumer Privacy Act (CCPA), which have all been enacted in the last five years.

Ms. Rathburn said her presentation is based on providing guidance to companies to address the privacy laws that are emerging. She said her presentation describes how companies can best comply with new legal requirements. She said there is a lot of focus on how different privacy laws affect the insurance industry and how companies can comply with all these varying regulations. She said companies should look at things from a policy and competitive perspective. Separate from the laws that are being enacted, consumers are becoming increasingly concerned about how their information is being accessed and used. Ms. Rathburn said companies want to be responsive to these concerns and transparent regarding how they use data.

Ms. Rathburn said companies can gain a competitive edge by having robust privacy programs in place. She said a recent study showed that companies enjoyed significant returns on their investments in privacy systems. She said as new legal regimes emerge, there are best practices that companies can put into place to prepare for compliance. She said companies need to make it a priority to know the data they are using and to have processes and mechanisms in place to respond to individual rights, whether an individual wants to access, correct or delete information. She said having a privacy notice that complies with the legal requirements that are in place for such notices in a state is critical. She said companies should regularly review and update their privacy practices, privacy notices, as well as regularly update any third-party contracts in which protected information is shared. She said part of knowing their data is staying up to date on legal developments and classifying data based on its sensitivity in regard to the applicable legal requirements. She said companies should develop procedures for processing an individual's rights under the legal regime, including developing model consents and training employees on how to handle requests within the required deadlines.

Ms. Rathburn said when state insurance regulators are looking to develop models, they need to keep in mind not only what they are most concerned about, but also how the insurance company is using data and their continued operations.

Mr. Sartain asked about transparency and whether Ms. Rathburn was aware of any laws addressing how authorizations should specify where data is being collected from. Ms. Rathburn explained that authorizations usually address a company's use and subsequent disclosure of information. She said a company's privacy practices should list what data a company is collecting.

Mr. Davis said a few states have laws covering transparency; but in the majority of cases, consumers are not aware of what information is being collected and used. He said he anticipates that laws will be drafted to cover this issue, and he expects nationwide laws addressing the use of data collection to be enacted.

Director Muriel asked Mr. Davis if it is his understanding that life insurance companies are currently using non-FCRA data. Mr. Davis said that his understanding, based on white papers, is that insurers are not using non-FCRA data currently to deny applications, but they may use the data to decide who to market to or whether to refer an application for additional underwriting. He said his impression is that companies are hesitant to use non-FCRA data, but they are very interested in doing so in the future.

Peter Kochenburger (University of Connecticut School of Law) asked what changes companies may be contemplating to improve how they obtain consumer consent. He said online disclosures are generally problematic, and consent, practically speaking, is often a fiction because few people actually read and understand consent forms or privacy notices. Ms. Rathburn said, in her opinion, the consent process and privacy notices are just getting more confusing, but companies are trying to address this issue. She said some companies are developing summaries that outline a company's general data use principles. She said layered notices are also common where checkboxes are utilized to verify that a consumer has read a notice, but there is not a standard, consistent practice. She said things are still in flux, but companies are hoping to develop shorter summary notices that consumers will be better able to understand.

Ms. Mavrothalasitis followed up on Mr. Sartain's question and asked how to make consumers aware that information from their phones or social media accounts may be used by insurers when they apply for a policy. For example, she said social media accounts or applications on iPhones have consents, and she discussed whether a third party with shared information should also have to obtain consent, or at least highlight to a consumer where they are getting their data from. Mr. Davis said an application will often prominently state that they will not disclose data to third parties, but the fine print says they will share "de-identified" or "anonymized" data, which in some cases can be "re-identified." Ari Scharg (Edelson) said when a company gets consent to use data for a specific purpose, it needs to be articulated and identified in their privacy policy. He said this type of usage of data would have to be identified in the privacy policy.

Having no further business, the Accelerated Underwriting (A) Working Group adjourned.

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Draft: 3/12/20

Accelerated Underwriting (A) Working Group  
Conference Call  
February 20, 2020

The Accelerated Underwriting (A) Working Group of the Life Insurance and Annuities (A) Committee met via conference call Feb. 20, 2020. The following Working Group members participated: Robert H. Muriel, Chair (IL); Grace Arnold, Vice Chair (MN); Jason Lapham (CO); Russ Gibson (IA); Rich Piazza (LA); Cynthia Amann (MO); Chris Aufenthie (ND); Matt Holman (NE); Jillian Froment and Mark Hamlin (OH); Elizabeth Kelleher Dwyer represented Sarah Neil (RI); David Hippen (WA); and Mark Afable represented by Sue Ezalarab (WI). Also participating was: Wanchin Chou (CT).

1. Heard a Presentation from the CEJ

Director Muriel said the purpose of the Working Group's call is to hear a presentation from the Center for Economic Justice (CEJ), but before the presentation, he wanted to discuss the Working Group's next steps. He said he understands that some states have reached out to Deloitte to seek their comments on the reviewing, auditing and testing of a life insurer's accelerated underwriting program. He explained that as discussed during the Working Group's Feb. 6 conference call, the Working Group has scheduled a few more companies, law firms, the American Academy of Actuaries (Academy), and other speakers to present during future Working Group conference calls on actual company accelerated underwriting practices, legal, and compliance issues. He said the Working Group's objective is to provide state insurance regulators with a more in-depth understanding of, not just a theory, but the practical aspects of accelerated underwriting. He said following that discussion, the Working Group would discuss the auditing, reviewing and testing issues related to accelerated underwriting. He said the Working Group plans to reach out to Deloitte to have it present to the Working Group during its April 2 conference call on topics such as the auditing, reviewing and testing of a life insurance accelerated underwriting program, as well as its experience related to these topics. He urged Working Group members to contact him or the Working Group's vice chair if anyone has any questions about the Working Group's next steps and its objectives.

Birny Birnbaum (CEJ) discussed consumer protection issues related to accelerated underwriting in life insurance (AUW) and regulatory actions needed to address them. He said accelerated underwriting is the application of big data analytics (BDA) in insurance based on the data mining of massive databases with consumer information coupled with predictive modeling, and it has been used by property/casualty (P/C) insurers since the early 1990s. He said that given this, there is a lot of information and experience available to state insurance regulators to review related to BDA and its use with respect to AUW.

Mr. Birnbaum described what types of consumer data are used for certain types of BDA applications. He also discussed the historical and current regulatory oversight over the data and the algorithms used by insurers, explaining why insurers' use of BDA represents a challenge to state insurance regulation and consumer protection. He said insurers' use of BDA has a huge potential to benefit consumers and insurers, but it also has huge implications for fairness, access and affordability of insurance and for state insurance regulators' ability to keep up with the changes and protect consumers from unfair practices. He said the current insurance regulatory framework generally does not provide state insurance regulators with the tools and resources to effectively respond to insurers' use of big data. He noted that "free-market competition" alone cannot and will not protect consumers from unfair insurer practices. Regulatory modernization is needed to protect consumers, which is even more important for AUW because state insurance regulators do not even have the tools that have been developed for P/C insurance.

Mr. Birnbaum said insurers are using and have used BDA for more than predicting claims, such as fraud detection, price optimization and personalization. He provided a historical background on such use beginning in 2005 with Allstate using BDA algorithms with credit scoring. He described the current regulatory framework and how it has been challenged in the era of BDA. He detailed the regulatory structure in place from its beginnings as the old school era of big data and how that framework has moved to the new school era of big data with limited regulatory oversight and the ability of state insurance regulators to address certain issues, such as disparate impact issues.

Mr. Birnbaum described how BDA models are developed by comparing historical univariate analysis versus modern multivariate analysis, explaining their strengths, limitations and challenges. He said understanding the difference between historical univariate analysis and modern multivariate analysis is essential to understand consumer protection issues, and he needed regulatory response to insurers' use of BDA. He discussed algorithmic bias and its causes and remedies. He said insurers' use of BDA increases the potential for proxy discrimination and disparate impact. He highlighted the New York Department of Financial Services' Circular Letter to insurers on the use of external consumer data and information sources in

underwriting for life insurance and a provision from the NAIC's *Market Regulation Handbook* on the issue of disparate impact on protected classes. He discussed changes needed to modernize the current regulatory framework to address these issues by providing state insurance regulators with the necessary regulatory tools, resources and techniques to examine disparate impact. He said such modernization needs to generally include new or revised NAIC models, particularly for life insurance that: 1) establish principles and values for insurers' use of BDA; 2) require routine reporting by insurers and publication by state insurance regulators of types, sources and uses of data by insurers; 3) require advisory organization oversight of vendors providing algorithms for marketing, pricing and claims settlement; 4) require filing and regulatory review of underwriting guidelines and/or tier placement factors, rating plans and algorithms; and 5) provide explicit recognition of disparate impact against protected classes as unfair discrimination in marketing, pricing and claims settlement with safe harbors for practices that assess and minimize disparate impact without compromising cost-based pricing.

Mr. Gibson asked Mr. Birnbaum about disparate impact and disparate intent. Mr. Birnbaum explained the differences between the two. He said disparate intent occurred in the past when insurers intentionally discriminated against consumers with their use of race-based pricing and underwriting. He said disparate impact refers to unintentional discrimination or proxy discrimination, such as the use of criminal history in pricing and underwriting. He said the issue, particularly in this era of multivariate analysis is to recognize the possibility of disparate impact, identify it, and minimize it. Mr. Hippen asked Mr. Birnbaum if he had any recommendations to help to ensure that state insurance regulators stay abreast of what is going on in the marketplace with AUW. He said the first step is for state insurance regulators to establish their values and principles for using BDA. The second step is to make sure the state's laws are current with respect to the regulatory authority needed to meet the established values and principles. He said the last step is ensuring that the state department of insurance (DOI) has the necessary regulatory resources, such as DOI employee skill sets, needed to analyze multivariate analyses and algorithms to help ensure that insurers are complying with the state's values and principles for using BDA.

Mr. Chou discussed what has been occurring on the P/C insurance side with respect to BDA and its application to the life insurance side. He also asked how state DOIs can address the issue of limited regulatory resources. Mr. Birnbaum reiterated some of the suggestions that he offered for regulatory modernization to address issues in the new era of AUW. He suggested that state insurance regulators may want to leverage the Interstate Insurance Product Regulation Commission (Compact) to address the limited regulatory resources issue.

Having no further business, the Accelerated Underwriting (A) Working Group adjourned.

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Draft: 2/26/20

Accelerated Underwriting (A) Working Group  
Conference Call  
Feb. 6, 2020

The Accelerated Underwriting (A) Working Group of the Life Insurance and Annuities (A) Committee met via conference call Feb. 6, 2019. The following Working Group members participated: Robert H. Muriel, Chair, Patrick Hyde, Erica Weyhenmeyer, Vincent Tsang and Bruce Sartain (IL); Grace Arnold, Vice Chair, and Fred Andersen and John Robinson (MN); Jason Lapham (CO); Russ Gibson and Lindsay Bates (IA); Rich Piazza (LA); Cynthia Amann, William Leung and Camille Anderson-Weddle (MO); Chris Aufenthie and Ross Hartley (ND); Jillian Froment, Peter Weber and Mark Hamlin (OH); Sarah Neil (RI); and Rebecca Rebholz and Lauren Van Buren (WI). Also participating were: Perry Kupferman, Katherina Hrouda and Pam O'Connell (CA); Wanchin Chou and Andrew Greenhalgh (CT); Michele MacKenzie (ID); Karl Knable (IN); Barbara Torkelson and Tate Flott (KS); Maile Campbell (NV); Mark McLeod and Peter Dumar (NY); Cuc Nguyen (OK); Tracy Bixler (PA); Rachel Hemphill (TX); and Tomasz Serbinowski (UT).

1. Discussed its Work Plan

Director Muriel asked for feedback on the focus of the Working Group's efforts so far. He reminded the Working Group that Deloitte Consulting gave a presentation during the Working Group's Jan. 23 conference call. He said he is working on scheduling presentations for the coming weeks with another consulting firm, a consumer advocate, two life insurance companies and a law firm. Ms. Arnold said that she has found the presentations helpful in understanding how accelerated underwriting (AUW) fits in a broader context.

Director Muriel said that some presenters have proprietary and confidential information to share and would like to do so in a regulator-to-regulator session. He explained that in keeping with the NAIC's open meetings policy, the Working Group is able to grant these requests on a case-by-case basis if they involve particular companies and company-specific proprietary intellectual property. He said he wants everyone to know that the Working Group plans to keep presentations in open session as much as possible and will strive to meet in regulator-to-regulator session when necessary to protect proprietary and confidential information.

Director Muriel clarified the Working Group will not be delving into the actuarial aspects of AUW. He explained that the Working Group's charge contemplates coordination with the Life Actuarial (A) Task Force, and the Working Group will not be duplicating their work. He said that the Working Group plans to focus on unlawful discrimination, privacy, transparency and disclosure in the context of AUW. He said the intention is for this focus to lead to an end product that satisfies the concerns of consumers, state insurance regulators and industry alike.

Birny Birnbaum (Center for Economic Justice—CEJ) said he agrees with the Working Group's stated focus and suggested adding a presentation about state efforts in this area, like the Illinois Biometric Protection Act (BIPA) and the genetic discrimination legislation in Florida. Mr. Tsang said he would ask the law firms he has been in contact with to address these topics in their presentations. Ms. Hemphill said it is not possible to completely separate topics like unfair discrimination from actuarial issues and suggested that there are Society of Actuaries (SOA) resources that would be helpful to the Working Group. Mr. Leung suggested that the Working Group review the Casualty Actuarial and Statistical (C) Task Force's *Regulatory Review of Predictive Models* white paper. Mr. Robinson asked whether genetic testing information is part of the AUW process and questioned whether it is an issue within the scope of the Working Group. Mr. Sartain said he had the same question. He said it is not clear what types of external data insurers are using and whether it may include Ancestry or 23andMe data.

David Leifer (American Council of Life Insurers—ACLI) said the decision of whether to tackle this topic in this Working Group is up to the state insurance regulators, but he said that life insurers do not use Ancestry or 23andMe data. He said any genetic information would be found in an individual's medical file. He said that a ban on the use of all genetic information is stunningly controversial. He suggested focusing on transparency and disclosure. He said that genetic information and credit score data is being dealt with elsewhere. Mr. Birnbaum said he hopes that the Working Group will develop principles and approaches to deal with AUW, regardless of the data source, in a uniform way across the country. Brendan Bridgeland (Center for Insurance Research—CIR) said that consumers are not sure what data is being accessed when they apply for life insurance. He said the presentations have mentioned the types of data used, but also include an "other data" catch-all category. He said he understands the desire to protect proprietary information about a specific algorithm, but from a transparency perspective, this is important information for consumers to have. He said that to the extent that genetic information is increasingly available, it

is important to consider it along with everything else that may be available and accessed. Director Muriel said the Working Group would continue to consider and discuss this issue.

Director Muriel summarized the topics he would like future presentations to address: 1) data sources, their legitimacy, privacy and embedded biases of the data, if any; 2) transparency and development of the algorithm; 3) accuracy verses fairness; 4) disclosure of AUW results to consumers; 5) implementation issues; and 6) controls, governance and data warehousing. He said two law firms have been contacted to present to the Working Group. He said one will be talking about discrimination from a legal perspective, and the second will cover cybersecurity. He said the Working Group will plan to coordinate with the NAIC working groups that are also working on related issues. He said he wants to make sure the different workstreams are coordinating.

Director Muriel asked for feedback on what the Working Group's work product should be. He said the default seems to be a white paper that would be for state insurance regulators, industry and consumers. Ms. Neil suggested that the Working Group revisit what was going on in the Big Data (EX) Working Group that precipitated the referral to the Life Insurance and Annuities (A) Committee. Jennifer Cook (NAIC) said she would circulate excerpts from the minutes of the Big Data (EX) Working Group. Director Muriel asked the Working Group to think about what work product the Working Group should develop.

Having no further business, the Accelerated Underwriting (A) Working Group adjourned.

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Draft: 2/12/20

Accelerated Underwriting (A) Working Group  
Conference Call  
Jan. 23, 2020

The Accelerated Underwriting (A) Working Group of the Life Insurance and Annuities (A) Committee met via conference call Jan. 23, 2020. The following Working Group members participated: Robert H. Muriel, Chair, Mike Chrysler, Linda Bryant, Vincent Tsang and Bruce Sartain (IL); Grace Arnold, Vice Chair, and John Robinson (MN); Jason Lapham (CO); Russ Gibson and Lindsay Bates (IA); Rich Piazza (LA); Cynthia Amann, William Leung and Camille Anderson-Weddle (MO); Ross Hartley (ND); Matt Holman (NE); Jillian Froment and Mark Hamlin (OH); Elizabeth Kelleher Dwyer, Matt Gendron and Sarah Neil (RI); David Hippen (WA); and Diane Dambach; Mary Kay Rodriguez, Sue Ezalarab, Rebecca Rebholz and Lauren Van Buren (WI). Also participating were: Jacob Lauten (AK); Perry Kupferman, Katherina Hrouda and Pam O'Connell (CA); Andrew Greenhalgh (CT); Karl Knable (IN); Barbara Torkelson and Tate Flott (KS); Denise Lamy, and Karen McCallister (NH); Seong-min Eom (NJ); Annette James (NV); Cuc Nugyen (OK); Mark McLeod and Bill Carmello (NY); Brian Hoffmeister (TN); Mike Boerner (TX); Tomasz Serbinowski (UT); and James Young (VA).

1. Discussed its Work Plan

Director Muriel reminded the Working Group that the work plan contemplates the Accelerated Underwriting (A) Working Group progressing through three phases in order to complete its charge by the 2020 Fall National Meeting. The first phase is the information-gathering phase, which started with a presentation at the 2019 Fall National Meeting from Patrick L. Brockett (The University of Texas at Austin). Director Muriel said that this phase is scheduled to continue until the Spring National Meeting and that he is in the process of scheduling additional presentations for every other Thursday to explore this topic from different perspectives. He said Chris Stehno (Deloitte Consulting LLC) is giving the presentation on this conference call.

Mr. Stehno said Deloitte started helping clients with accelerated underwriting (AUW) in 2007. He explained that Deloitte called it “application triage” and that it came out of the realization that the number of people purchasing life insurance was declining. He said that the number of individual life and annuity policies sold has dropped significantly, while the face amounts of the policies sold has increased—indicating that just the wealthy are buying life insurance. He said the mechanism for selling life insurance—through agents earning a commission—has not evolved over the years. He said consumers’ buying preferences have changed and that the channels for selling insurance have not. He said agents cited the fact that the same number of hours is required to sell a policy, regardless of the size of the policy. He said it became clear that traditional sales methods, cumbersome and time-consuming risk assessment processes, and unacceptable commissions all have contributed to the declining numbers of middle-income people buying life insurance.

Mr. Stehno said Deloitte undertook protective value studies, where the company looked at whether paramedical exams and fluid collections are always necessary. He said Deloitte was trying to determine if there is a type of person that can be identified where there are diminishing returns for going through the paramedical exam and fluid collection. He explained that predictive analytics were being used to triage applications, identifying certain healthy applications for whom selected medical underwriting requirements can be waived. He said that Deloitte determined that out of the individuals that apply for life insurance, 30% to 40% are able to go through AUW. Most companies use a binary rule (such as policy face amounts or the age of applicant) in combination with an algorithm to determine if they can be waived out of traditional underwriting.

Mr. Stehno explained the application triage process used to determine if an application can skip traditional underwriting. He said illustrative eligibility criteria, a detailed build chart and disqualifying major medical conditions criteria are applied in the initial step of identifying eligible and healthy applicants. He said if the application met this linear criteria, then the company will query third-party data sources—such as Medical Information Bureau (MIB) records, motor vehicle records (MVRs), prescription drug (Rx) records and electronic health records (EHRs)—and apply an underwriting filter to that information to determine if the applicant needs to go through traditional underwriting. If the application does not go to traditional underwriting at this point, the applicant will go through a telephone interview, at which time additional underwriting filters are applied. If the application is not kicked to traditional underwriting after the phone interview, the data collected to that point is processed by predictive model. He said each application then receives a health score and reason code. Then a policy is issued within 24 to 48 hours without going through medical underwriting. About 40% of policies applied for are issued without medical underwriting. The remaining 60% of applications go through traditional underwriting. He said about 75% of the policies eligible for AUW are life insurance policies.

Mr. Stehno said that Deloitte has found that transparent and open algorithmic solutions provide for a better agent/customer experience as “reason codes” can be easily developed to share algorithm details at the appropriate level to the appropriate person. He said that applying application triage using application data, MIB, MVR, Rx and other 3rd party data, together with underwriting rules established by the insurer, often provides results that are similar to fully underwritten decisions for a significant portion of the business – predominantly the higher scoring segments. He explained that application triage does not result in an adverse action because they will either go through accelerated underwriting or traditional underwriting.

Mr. Stehno explained that most all large and mid-sized companies have established data analytics practices. He said over a dozen companies have some form of AUW in the marketplace. He said some reinsurers, data vendors and consulting firms are now offering “industry” algorithms and risk scoring. He said electronic health records are complementary to AUW and are now widely used. He explained that there are many opportunities for expanding the use of data analytics in life insurance, such as use in: producer optimization, product design and pricing; sales and marketing; new business and underwriting, inforce management; and claims and fraud.

Director Muriel asked Working Group members and interested regulators to reach out to industry in their states to get feedback on their expectations for this Working Group.

Having no further business, the Accelerated Underwriting (A) Working Group adjourned.

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## Draft Pending Adoption

Attachment One  
Life Insurance and Annuities (A) Committee  
12/8/19

Draft: 12/16/19

Accelerated Underwriting (A) Working Group  
Austin, Texas  
December 8, 2019

The Accelerated Underwriting (A) Working Group of the Life Insurance and Annuities (A) Committee met in Austin, TX, Dec. 8, 2019. The following Working Group members participated: Robert H. Muriel, Chair, Mike Chrysler, Patrick Hyde, Bruce Sartain and Vincent Tsang (IL); Grace Arnold, Vice Chair, and Fred Andersen (MN); Doug Ommen and Mike Yanacheak (IA); Rich Piazza (LA); Cynthia Amann (MO); Chris Aufenthie (ND); Matt Holman and Rhonda Ahrens (NE); Mark Hamlin (OH); Sarah Neil (RI); and Mark Afable, Rickard Wicka and Lauren Van Buren (WI). Also participating were: Steve Ostlund (AL); Cuc Nguyen (OK); Michael Humphreys (PA); and Rachel Hemphill (TX).

### 1. Adopted its Oct. 2 Minutes

Director Muriel said the Working Group met Oct. 2. During this meeting, the Working Group developed a work plan for completing its charge by the 2020 Fall National Meeting.

Ms. Amann made a motion, seconded by Commissioner Ommen, to adopt the Working Group's Oct. 2 minutes (Attachment One-A). The motion passed unanimously.

### 2. Heard a Presentation on Accelerated Underwriting in Life Insurance

Patrick Brockett (The University of Texas at Austin) gave a presentation on accelerated underwriting in life insurance. He explained that life insurance is based on three concepts: 1) pooling many similar risk exposures into a relatively homogeneous group; 2) accumulating a fund through contributions (premiums) from the members of the group; and 3) paying from this fund for the losses of those who die each year. He said that life insurance underwriting is the process of deciding which life insurance applicants to accept, how to group them, and how to charge them appropriate premiums for their risk class. He explained that this traditionally involves assessing a person's physical health, usually by blood work, urine analysis, doctor's notes, physical exams, etc.

Mr. Brockett explained that the premium that an insurance company charges reflects more than just the risk class of the insured. He said the premium actually charged by the insurer takes into account multiple factors, including the probability that a person will die during the year, the face value of the policy, projected losses, commissions and administrative expenses, risk charge, taxes, and any investment income on premiums.

Mr. Brockett explained that accelerated underwriting is a fully underwritten life insurance program that allows some applicants to forgo having a medical or paramedical exam and providing fluids if they meet certain requirements and/or meet a certain pre-determined threshold, as is stated in the Klein & Rudolph, June 2019 SOA Report. He said that accelerated underwriting generally makes use of new data together with algorithmic tools and modeling techniques to risk-group applicants quickly without the necessity of bodily fluids, physician's notes, etc. For those who qualify, the use of available digital data can reduce the underwriting decision time from two to 12 weeks down to no more than 48 hours.

Mr. Brockett explained that accelerated underwriting is used by many companies, and it is most commonly used to issue term life insurance policies. He said policyholders usually pay the same rate as standard underwritten policies, but the underwriting decision is made much more quickly. He said if an applicant is in very good shape and could qualify for preferred rate pricing, standard underwriting might result in a lower priced product. He said accelerated underwritten insurance is not a guaranteed issue, and it differs from simplified issue insurance, which is insurance with no requirement for a physical exam. He explained that with accelerated underwriting, there is an assessment of physical fitness obtained from digital data. He said simplified issue premiums are expected to be more expensive than if the applicant had undergone a full underwriting process. He said accelerated underwriting premiums are equivalent to standard rates through regular underwriting.

Mr. Brockett said accelerated underwriting replaces the use of bodily fluids and doctor's notes with the use of algorithms and data sources, such as prescription histories, motor vehicle records (MVRs), Medical Information Bureau (MIB) information, applications, interviews, consumer data, and credit scores. He said some insurers require no history of bankruptcy in the last

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five to 10 years, no history of driving recklessly or driving while intoxicated (DWI) within five years, no more than two moving violations in the past three years, and no felony charges or convictions. He said the minimum benefit amount is usually around \$100,000, and the maximum benefit amount is usually around \$1,000,000. He said that applicants may still need to go through regular underwriting if certain risk factors show up in accelerated underwriting.

Mr. Brockett listed some of the advantages of accelerated underwriting as opposed to regular underwriting: 1) it allows for faster decisions; 2) it is less costly to insurer, less invasive, easier way of doing business, standard or better underwriting, easier to file data, possibly more accurate underwriting, attracts younger clients, and eliminates personal bias. Conversely, he said there are limitations to be considered, like the differing state laws governing insurance and procurement data make it difficult to streamline underwriting practices. He said increased digitalization opens insurers up to new data for underwriting use, but also possibly more fraud. He said careful attention will have to be given to data privacy and security concerns. He said care must be taken when using machine learning and artificial intelligence (AI) techniques to avoid “learned” statistical biases. He said models will have to be continuously updated to maintain accuracy.

Professor Brockett also pointed out some potential areas of controversy. He said the use of complicated underwriting algorithms raises the possibility of unknown or unrecognized proxy discrimination and makes underwriting decisions more difficult to explain to clients and regulators. He said social data is more susceptible to high variances and heteroskedasticity in estimated model weights. He said another concern may be adverse selection against applicants that forego certain fluid testing.

Professor Brockett spoke about the use of credit history and other financial data in life insurance. He said credit scores are widely accepted in the P&C industry, and certain aspects of financial history have long been used in life insurance (e.g., the applicant will have to justify if the amount of insurance desired is very much more than their income level). Nevertheless, he said, because better credit scores correlate with a longer life, it may be a useful predictor. He said other uses of credit history variables in life insurance may require further study to show independent predictive value. He said a credit-mortality score can be created just like a credit insurance claim score was created for auto insurance.

Mr. Brockett said the Society of Actuaries (SOA) hired Milliman to conduct a survey of the accelerated underwriting practices of direct insurers and reinsurers. The Klein & Rudolph, June 2019 SOA Report presenting preliminary results of the survey is available on the SOA website. 27 life companies and five reinsurers responded to the survey on their accelerated underwriting programs related to data between Jan. 1, 2017, to Sept. 30, 2018.

Commissioner Ommen asked Mr. Brockett what kind of information is included in “consumer data” and what the data sources are used for. Mr. Brockett said consumer data includes credit data and data from social media platforms. He said social media data is currently used in claims verification. He said he did not think scanner data from grocery stores was being used, but it may be in the future. As far as the extent to which this kind of data is being used, he said he got his information from the preliminary data in the Klein & Rudolph, June 2019 SOA Report. He said more information will be available in the final report.

Ms. Hemphill asked Mr. Brockett how accelerated underwriting reduced bias. Mr. Brockett said that people have cognitive biases and may focus on one thing and reach different decisions with identical facts, while modeling and algorithms will always reach the same decision with the same data. He said that there may be some bias because machines are trained to emulate humans, but people can also train machines to remove human biases. Ms. Hemphill said there are some states that do not allow the use of credit scores in underwriting. Mr. Brockett agreed that there are states that prohibit the use of credit scoring in underwriting; there was a 2005 study in Texas that looked at credit score and race and concluded that credit scoring could not be used to accurately predict race.

Birny Birnbaum (Center for Economic Justice—CEJ) questioned whether someone rejected under the accelerated underwriting process could credibly expect to be accepted through the regular underwriting process. He also disagreed with Mr. Brockett with respect to the use of credit scores as a proxy for race, and he said there is a disparate impact on people of color when credit scoring is used in underwriting. He said he is also concerned about the use of facial analytics in underwriting, which has been shown to have disproportionately high error rates for women and people of color. Mr. Brockett said facial analytics can be useful in estimating life expectancy. Brendan Bridgeland (Center for Insurance Research—CIR) said using facial analytics to track aging makes sense, but the technology is not ready yet. He also asked why bankruptcy would be an automatic denial. He said he suspected that it was because there may be medical bills or risky behavior in financial aspects of one’s life, suggesting risky behavior in other aspects of life. In that case, it is duplicative of credit scoring.

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Mr. Tsang asked whether reinsurers used their own underwriting algorithms and which company's algorithms apply if there is a conflict with a ceding insurer. Donna Megregian (SOA) said that reinsurers do not re-underwrite; they accept the ceding insurers conclusions.

### 3. Discussed Next Steps

Director Muriel reminded the Working Group that the work plan contemplates three phases to its work. He said that Mr. Brockett's presentation initiated the first phase—information gathering. He asked Working Group members, interested state insurance regulators, and interested parties to email any articles or presentation suggestions to Jennifer Cook (NAIC) at [jcook@naic.org](mailto:jcook@naic.org). He said the Working Group plans to meet via conference call during the third week of January 2020.

Having no further business, the Accelerated Underwriting (A) Working Group adjourned.

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Welcome to the

# 2020 NAIC Virtual Summer National Meeting

1

OUR MEETING WILL BEGIN SHORTLY



National Association *of* Insurance Commissioners

- ✓ All audio will be muted upon entry
- ✓ Enter with video on or off (your choice)
- ✓ Use the “Chat” or “Q&A” feature for questions, comments or assistance from moderators
- ✓ If you have joined by phone, to mute and unmute your line, press\*6
- ✓ For any technical challenges please contact the NAIC Technical Support Team at [MeetingTechHelp@naic.org](mailto:MeetingTechHelp@naic.org) or 866-874-4905

# ACCELERATED UNDERWRITING (A) WORKING GROUP

# Description of the Project, Issues Addressed, etc.

- Charge and AUWG created by A Committee at 2019 Summer National Meeting
  - Charge to “Consider the use of external data and data analytics in accelerated life underwriting, including consideration of the ongoing work of the Life Actuarial (A) Task Force on the issue and, if appropriate, drafting guidance for the states.”
- AUWG held first conference call Oct 2, 2019.

# AUWG members

Illinois: Chair

Minnesota: Vice Chair

Other members: Colorado, Iowa, Louisiana, Missouri, Nebraska, North Dakota, Ohio, Rhode Island, Washington, and Wisconsin

# Work Plan

- Three Phases:

- I – Information Gathering

- II - Identify Issues and Potential Work Product

- III - Develop Work Product

# Process

The AUWG has met 16 times (via conference call and in person).

- Once in Oct. 2019 (10-2-19)
- Once in Dec. 2019 (12-8-19)
- Twice in Jan. 2020 (1-23-20; 1-30-20)
- Four times in Feb. 2020 (2-6-20; 2-13-20; 2-20-20; 2-27-20)
- Twice in Mar. 2020 (3-5-20; 3-13-20)
- Twice in June 2020 (6-18-20; 6-25-20)
- Four times in July 2020 (7-8-20; 7-16-20; 7-23-20; 7-31-20)

Six of the 15 sessions have been regulator-only; the rest have been open presentations.

# PRESENTATIONS FROM:

- Actuarial consulting firms (Deloitte, Milliman, Risk Regulatory Consulting)
- American Academy of Actuaries
- Life insurance companies
- Consumer advocate group (Center for Economic Justice)
- Lawyers (Foley & Lardner, Edelson PC)
- Machine Learning Assurance Company (Monitaur)

# NEXT STEPS—Ad Hoc Subgroups

- The “Ad Hoc NAIC Liaison Subgroup” will focus on making sure the AUWG is aware of all other NAIC groups, past and present, including any work products developed or in progress in those groups.
- The “Ad Hoc Drafting Subgroup” will focus on identifying the issues, synthesizing the information received and make a recommendation to the Working Group about a work product. This drafting subgroup will also propose a process for developing that work product.

# AD HOC NAIC LIAISON SUBGROUP

## Related NAIC workstreams

- Innovation and Technology (EX) Task Force: Providing a forum for regulator education and discussion of innovation and technology in the insurance sector, monitors technology developments that affect the state insurance regulatory framework, and develops regulatory guidance, as appropriate.
- Artificial Intelligence (EX) Working Group: Developing principles for insurers' use of AI.
- Big Data (EX) Working Group: Discussing the use of data for fraud and claim settlement and regulatory oversight of third-party vendors that may be engaging in activities similar to advisory organizations.
- Accelerated Underwriting (A) Working Group: Discussing the use of external data and data analytics in accelerated life underwriting to identify issues and the best ways to address these issues (white paper, model bulletin, model law).
- Casualty Actuarial and Statistical (C) Task Force: Developing best practices for the review of predictive models and analytics filed by insurers for P&C rating and facilitating training and sharing of expertise among states.
- Privacy Protections (D) Working Group: Reviewing state insurance privacy protections regarding the collection, use and disclosure of information gathered in connection with insurance transactions, and making recommended changes, as needed, to certain NAIC models, such as the *NAIC Insurance Information and Privacy Protection Model Act* (#670) and the *Privacy of Consumer Financial and Health Information Regulation* (#672).
- Producer Licensing (D) Task Force: Drafting a white paper on the role of chatbots and artificial intelligence (AI) in the distribution of insurance and the regulatory supervision of these technologies.

# Ad Hoc Drafting Subgroup – Synthesize information

## BACKGROUND

- Life companies have been using underwriting to group life applicants into appropriate risk classes where the classification is based on the statistical inference of the applicant's basic data and medical data.
- The classification must comply with the provisions of the underwriting manual.
- The commonly used underwriting methods include
  - No underwriting for guaranteed issues
  - Simplified underwriting (SI)
  - Traditional (paramedic) underwriting (TUW)
  - Accelerated underwriting (AUW)

# Questions to Consider:

1. Informed Consent - Do consumers understand what information is being collected and how it can be used?
2. Whether the AUW's triage or recommendations are unfairly discriminatory against certain protected classes.
3. Whether the AUW results are transparent and explainable to the applicants.

# AUW OFFERS STRONG BUSINESS INCENTIVES

- Business incentives include:
  - Underwriting expense savings
  - Scalability
  - Better applicant experience
  - Less invasive medical test such as blood test
  - Shorter policy issue time
  - Higher policy acceptance rate
- Potential adverse effects include:
  - Mortality slippage
  - Compliance with internal control, legal and disclosure issues

# SCOPE OF AUW WILL EXPAND

- Only selected applications and products are subject to AUW. Other applicants are subject to other underwriting methods.
- Using AUW methods is an industrial trend.
- More life companies will utilize AUW including fraternal.
- Existing AUW restrictions on product types, maximum issue age, max face amount and risk classes may soon be relaxed.
- Volume of policies subject to AUW will increase.

# INPUT DATA FOR AUW

- Most AUW programs collect and analyze data from the applicants for triage. Some also determine a “score” for each life applicant.
- Collected data is a subset of TUW data such as:
  - Life application form
  - Attending physician’s statement (APS)
  - Prescription drug history
  - Medical Insurance Bureau (MIB) and
  - Motor Vehicle Record (MVR)
- Mixture of medical data and behavioral data (MVR).
- Fluid tests may not be required.

# HUMAN UNDERWRITER MAKES FINAL DECISION

- A UW is not replacing human underwriters. It assists the human underwriter to collect information and perform the initial analysis.
- Some AUW methods serve as “triage” systems to recommend whether the applicant should go through traditional underwriting.
- Some AUW programs use the score to place applicants into different risk categories:
  - Low risk
    - Proceed without traditional underwriting which involves fluid tests
    - Suggest adjustment to the applied risk class (i.e., preferred NS rather than super preferred NS)
  - Medium risk
    - Perform traditional underwriting for the applicant
  - High risk
    - Perform traditional underwriting for the applicant
    - May recommend rejection of the application
- Human underwriter reviews the AUW’s recommendation and the supporting data, and makes the final underwriting decision.

# ALGORITHM, AI and MACHINE LEARNING

- Traditional underwriting manual is the “gold standard.”
- AUW Algorithm is designed to replicate via back-testing.
- Program learns from underwriter’s feedback to improve itself.
- AUW program may detect prior underwriting mistakes.
- AUW algorithm is not static and is evolving; most AUW algorithms are in their second or third generation.
- Tests, controls and documentation are vital for monitoring AI and machine learning.

# BEHAVIORAL DATA MAY HAVE ADDITIONAL INFORMATION

- Some companies believe the behavior of an individual has strong implications on mortality risk. This behavioral data includes:
  - Gym membership
  - Profession
  - Marital status
  - Family size
  - Grocery shopping habits (e.g., health foods versus junk/alcohol/cigarettes)
  - Wearable technology
  - Credit score
- While medical data may have scientific linkage with mortality, behavioral data may lead to questionable conclusions as association may be confused with causation.
- These potentially questionable findings caused by association may inadvertently and unlawfully discriminate against some protected classes.

# CURRENT PRACTICES

- Caveat: We have only discussed AUW practices with a few life companies and our findings below may not be conclusive for other life companies.
- Large insurers with adequate resources develop their own AUW programs.
- Smaller insurers rely on consulting firms and reinsurers to assist in building their AUW programs.
- Continual monitoring of the effectiveness of the program and compliance with regulations demands resources.
- All generations of the current AUW program also require checks and balances.
- Small companies may have resource issues for upgrading their AUW methods.

# CURRENT PRACTICES continued...

- The AUW's automated data processing reduces human errors and allows underwriters to focus on high value activities.
- The expense savings, scalability and higher acceptance rate justify the potential extra mortality cost.
- Life companies rely primarily on medical data such as application form data, Rx, MIB, APS and phone interview. Secondary data include MVR, criminal history, credit profile and financial data. The third layer includes electronic health data, wearables and social media.
- Source: SOA Survey

# MAINTENANCE AND COMPLIANCE OF AUW PROGRAMS

- Although behavioral data are not used heavily today, it may change over the next 10 years.
- A controversial data source is the credit score as the distributions of credit scores vary significantly among ethnic groups.
- Techniques such as back-testing, random holdouts, post-issue monitoring, continual monitoring for abnormal activities, peer review by cross functional groups (e.g., legal and ERM) are used to evaluate compliance with various laws and regulations.
- It is not clear that companies have tested their AUW programs and maintain adequate records to show their legal compliance.

# LAWS AND REGULATIONS

- Health Insurance Portability and Accountability Act (HIPAA)
- Fair Credit Reporting Act (FCRA)
- Equal Credit Opportunity Act (ECOA)
- Title VII of the Civil Rights Act of 1964
- Americans with Disabilities Act of 1990
- Federal Trade Commission (FTC) Section 5
- NAIC Model Law 880 Unfair Trade Practices Act
- NYDFS Circular Letter No. 1 (January 2019)
- Florida House Bill 1189 (July 1, 2020)

# FAIR CREDIT REPORTING ACT (FCRA)

- Fair Credit Reporting Act (FCRA)
  - Address fairness, accuracy and privacy of person info collected by credit bureaus
  - Define types of information credit bureaus can collect
  - Govern how credit bureaus can collect and share credit information (employers, lenders and insurers)
  - Allow individual to review and challenge the accuracy of the credit report
- Federal Trade Commission (FTC) and Consumer Financial Protecting Bureau (CFPB) are the two main bodies to enforce the FCRA.
- States may have their own laws regarding the usage and sharing of credit data.
- Credit data are frequently updated and cover a significant portion of the population.
- Many insurers plan to use credit data as an input variable in their AUW algorithms.

# CREDIT INFORMATION – Mortality Hypothesis

- Typical credit report contains ~800 attributes.
- Some users may limit the number of attributes to less than 50 in their analysis as many attributes are correlated.
- Selected attributes are used to understand behavior which may have a strong influence on one's mortality risk during younger ages.
- $H_0$ : Individuals with a high credit score have a lower mortality risk profile
- Is this actuarially sound?
- Are we confusing association with causation?

# CREDIT DATA – COLLATERAL DAMAGE AND GUIDANCE

- A young healthy person without much credit history may be considered as high risk.
- Certain ethnic groups achieve significantly higher mean and median credit scores than others.
- If credit scores are used in AUW without checks and balances, would it lead to unfair discrimination for certain ethnic groups and deprive them of insurance availability and options?
- Should credit data be used only as supplemental information and not a key decision parameter?
- Many insurers are looking to state insurance departments for guidance.

# NON-FCRA DATA

- While credit data are governed by FCRA, there are ample amount of data not governed by FCRA:
  - Credit card purchases
  - Web usages/social media
  - Facial recognition
  - Alcohol/cigarette purchases
  - Wearables, etc.
- Consumers may be subjected to adverse effects and do not have the avenue to challenge their validity.
- Should this non-FCRA data be prohibited for AUW?
- If it is used, should the method and the effects be disclosed and should life applicants be allowed to challenge the accuracy of non-FCRA data and the underwriting results?

# CONSUMER CONCERNS

- The regulatory framework for big data fails to keep pace with the current practices in using big data. It is particularly acute for the life insurance industry.
- Input data should be tested for accuracy and inherent bias.
- Regulations should promote fairness, and insurance products should be priced under a cost-benefit basis.
- The life industry should (a) promote availability and affordability of insurance products to protected classes and (b) curtail any unfair discrimination.
- CEJ also recommends approaches to reduce the impact of bias on AUW.

# Proposed Revised TIMELINE

- August – early September: Final presentations to the fill gaps, including the pros and cons of machine learning as well as hands-on auditing of AUW programs.
- August – December: Ad Hoc Drafting Group to decide on work product and begin drafting while coordinating with the Ad Hoc NAIC Liaison Group to ensure consistency with other NAIC work streams.
- End of December 2020: Have a first draft to expose for comment.
- Final Work Product to the (A) Committee by 2021 Summer National Meeting.

# Questions?

# Appendix

# GENETIC DATA

- Florida House Bill 1189
  - Passed on July 1, 2020.
  - It is an extension of the federal law “Genetic Information Non-Discrimination Act” (GINA) which prohibits insurers from using genetic data to underwrite health insurance and to set premiums.
  - Insurer may access the genetic information from the applicant’s health record even though it cannot use it.
  - This bill is the first state DNA privacy law which prohibits insurance companies from using genetic test results to price, underwrite and offer life, disability and LTC coverages.
  - Insurers are forbidden from requiring or soliciting genetic information from insurance applicants.
  - DNA testing companies are prohibited from providing genetic information to insurers without customer’s consent.
  - Individual applicant may voluntarily offer the DNA test results to insurance companies.

# GENETIC PRIVACY LAWS

- There is no federal genetic privacy law.
- State Genetic Privacy Laws are not uniform among states and they cover the following:
  - Informed consent for a third party to either perform or require a genetic test.
  - Informed consent to obtain genetic information.
  - Informed consent to disclose genetic information.
  - Written authorization to disclose genetic information.
  - Genetic information as personal property.
  - Personal property rights to DNA samples.
  - Individual access to personal genetic information, and
  - Specific penalties (civil, criminal or both) for violating genetic privacy laws.
- Nevada Senate Bill 220 and California Privacy Protection Act protect consumers from internet privacy.