The Big Data (EX) Working Group of the Innovation and Technology (EX) Task Force met in Orlando, FL, April 6, 2019. The following Working Group members participated: Doug Ommen, Chair (IA); Elizabeth Kelleher Dwyer, Vice Chair (RI); Lori K. Wing-Heier (AK); Jerry Workman (AL); Ken Allen and Rachel Hemphill (CA); George Bradner and Wanchin Chou (CT); Stephen C. Taylor (DC); Trinidad Navarro and Frank Pyle (DE); Erin VanSickle (FL); Judy Mottar (IL); Rich Piazza (LA); Al Redmer Jr. (MD); Tim Schott (ME); Karen Dennis (MI); Martin Fleischhacker, Phillip Vigliaturo and Fred Andersen (MN); Chlora Lindley-Myers and Angela Nelson (MO); Mark McGill (NJ); Barbara D. Richardson (NV); Jillian Froment (OH); Andrew Stolfi and TK Keen (OR); Michael McKenney (PA); Kendall Buchanan (SC); J’ne Byckovski (TX); Tomasz Serbinowski (UT); Michael S. Pieciak represented by Christina Rouleau (VT); and Mike Kreidler represented by AnnaLisa Gellermann (WA).

1. **Adopted its Feb. 25 Minutes**

Commissioner Ommen said the Working Group met Feb. 25 and took the following action: 1) adopted its 2018 Fall National Meeting minutes; and 2) discussed its 2018 workstreams and 2019 charges.

Director Froment made a motion, seconded by Ms. Nelson, to adopt the Working Group’s Feb. 25 minutes (Attachment Two-A). The motion passed unanimously.

2. **Received a Report from the Casualty Actuarial and Statistical (C) Task Force**

Mr. Piazza said the Casualty Actuarial and Statistical (C) Task Force continues to invite coordination with the Working Group to: 1) draft and propose changes to the *Product Filing Review Handbook* to include best practices for the review of predictive models and analytics filed by insurers to justify rates; 2) draft and propose state guidance for rate filings that are based on complex predictive models; and 3) facilitate training and the sharing of expertise through predictive analytics webinars.

Mr. Piazza said since the 2018 Fall National Meeting, the Task Force exposed a white paper, *Regulatory Review of Predictive Models*, on best practices and providing guidance to the states. He said the purpose of the white paper is to identify best practices state insurance regulators could consider when reviewing a rating plan submitted to the state that includes a complex model. In addition, he said the white paper will include the information state insurance regulators may need to meet the objective of a best practice.

Mr. Piazza said 18 comments were received. Eight were received from the states and 10 were from the industry. Mr. Piazza said while there was general support for the white paper and agreement, best practices are beneficial if done correctly. He said concerns were expressed regarding whether the identified are too burdensome. He said some comments stated that a one-size-fits-all approach is not realistic, and many states already have reasonable methods and requirements for reviewing models.

Mr. Piazza said the volunteer drafters have mapped the comments to the relevant portions of the white paper and will recommend changes, which will then be re-exposed for public comment.

Mr. Piazza said there are four policy issues raised by the white paper on which the Working Group can assist the Task Force. These issues include: 1) confidentiality concerns; 2) broadening the scope beyond generalized linear models used in auto and homeowners rate filings, and into other insurance operations such as underwriting and claims; 3) causality versus correlation and whether correlation is all that should be considered; and 4) transparency for consumers on what data is used, how it is used, and its impact on premium.

Commissioner Ommen said the Working Group continually hears the need for state insurance regulator training. He noted that the organizers of the Global Insurance Symposium (GIS) have agreed to pilot training on big data analytics, and the NAIC has agreed to fund state insurance regulators to attend. He said 70 state insurance regulators will be attending.

Commissioner Ommen said, on March 14, he and Superintendent Dwyer gathered a group of state insurance regulators who have been working on big data issues for a meeting in Kansas City, MO. He said the goal of the meeting was to determine what the real needs are for the state insurance departments. He said he values the feedback of all interested parties.
3. **Heard a Report on NAIC Staff Recommendations**

Andrew J. Beal (NAIC) said, on April 17, 2018, the Executive (EX) Committee directed: 1) NAIC management to “conduct research on the appropriate skills and potential number of resources for the organization to help NAIC members in coordinating their reviews of predictive models”; and 2) the NAIC Legal Division to prepare a memorandum analyzing “methods and procedures to be followed in sharing predictive modeling information in order to maintain applicable statutory confidentiality protections.”

Mr. Beal said he would update the Working Group on the first directive to determine the appropriate skills and resources for the NAIC to help its members coordinate their reviews of predictive models. He noted that the NAIC Legal Division is continuing its work on the second directive, and their recommendations will be made at another time.

Mr. Beal said over the past few months, NAIC management has had several conversations with various members of the Working Group regarding the needs of state insurance regulators in reviewing and sharing information with other state insurance regulators about predictive models. He noted that reviewing predictive models would be limited to technical assistance and support, including predictive risk correlation, actuarial review and experience, and education and training. He said the NAIC would not be exercising any regulatory authority, nor attempting to expand or redefine existing laws or regulations. As an example, he said the NAIC might identify data elements used in a model, such as education and income, but would not comment on the appropriateness of the use of such data.

Mr. Beal said NAIC management has developed the following recommendations for achieving the Executive (EX) Committee’s first directive:

1) The NAIC should hire a technical staff resource (one full-time employee initially, but this may be increased if needed) to provide technical support for state insurance regulators, including predictive risk correlation, actuarial review and experience, as well as education and training.

2) The NAIC should develop a tool, such as a database, for state insurance departments to share information with other state insurance departments about their review of models.

3) The NAIC should develop and implement an education and training program for state insurance regulators. Separate training, as needed, will be developed for actuaries and front-line rate and form review staff.

Regarding hiring a staff resource to provide technical support to state insurance regulators, Mr. Beal said the NAIC would move forward to identify the appropriate skills and experience for the position. He said once the position specification is finalized, the NAIC would post the position and begin recruiting candidates.

Mr. Beal said the primary of purpose of the NAIC developing a state insurance regulator tool and/or database is for state insurance regulators to share information about models with their colleagues in other states. He said NAIC staff are currently conducting research and analysis on this project. He said the work on this project will be guided by the NAIC Legal Division’s work currently underway regarding the “methods and procedures to be followed in sharing predictive modeling information in order to maintain applicable statutory confidentiality protections.” He said once all of this work is completed, it is possible that a formal proposal, which may include a fiscal impact statement, will be presented to the Executive (EX) Committee for its consideration.

Regarding the development and implementation of a training program for state insurance regulators, Mr. Beal said efforts are already underway. He noted that a pilot training program is planned for the GIS, which is being held April 23–25 in Des Moines, IA. Additionally, a training program is planned for the NAIC/NIPR Insurance Summit, which is being held June 3–7 in Kansas City, MO. Mr. Beal said these two initial training programs will be evaluated to determine what changes or enhancements are needed for future programs.

Mr. Chou noted that some larger companies have many data scientists working on their rating models. He said one full-time employee does not seem to be enough. He suggested consulting with some of the larger property/casualty (P/C) companies.
Mr. Keen and Ms. Nelson expressed their appreciation and noted that the recommendations meet the three areas for which the Working Group requested assistance.

David F. Snyder (American Property Casualty Insurers of America—APCIA) said the recommendation for additional training for state insurance regulators is welcome, and he noted the work of the Working Group has gone a long way in making state insurance regulators more comfortable with the issues raised by the use of big data. He said companies have confidentiality concerns with the sharing of the rate models and analysis. He noted that this is intellectual property, and companies have large investments in them. Companies want state insurance regulators to have the information they need, but confidentiality is essential, so they look forward to working with the Working Group on this.

Regarding an NAIC resource providing technical assistance, Mr. Snyder said he fears the NAIC may inadvertently exercise authority at a level not authorized by the state. He said the position must be technical and careful not to become quasi-regulatory. He said he understands that this is a shared concern, and he looks forward to dialoging about the resource.

Birny Birnbaum (Center for Economic Justice—CEJ) said he is pleased to see movement on the recommendations. He noted that many states have access to actuaries and actuarial resources. He said the NAIC resource should complement these state resources and not replicate them.

4. Discussed Next Steps Regarding the Use of Data for Life Insurance Underwriting

Commissioner Ommen summarized the 2018 activity of the Working Group. He said the Working Group heard a presentation during the 2018 Summer National Meeting from Eric Sondergeld (Life Insurance Marketing and Research Association—LIMRA), during which he provided an overview of LIMRA’s survey of insurance companies regarding the use of data in life insurance underwriting. In October 2018, the Working Group heard a presentation from Director Bruce R. Ramge (NE) on market conduct examination standards for life insurance underwriting.

Commissioner Ommen said these two presentations led to additional discussions during the 2018 Fall National Meeting on how the use of data models for life insurance underwriting has become more common as insurance companies move to eliminate the use of medical examinations and the collection of fluids. He said questions have been raised regarding whether these innovations warrant the development of additional regulatory tools, whether state insurance regulators should be examining vendors that are supplying data to insurers, and whether vendors are supplying similar data and models to multiple insurers. He noted the Life Actuarial (A) Task Force is focusing on the actuarial soundness of the new data being used and potential long-term solvency issues.

Mr. Andersen said accelerated life underwriting involves replacing medical exams and the collection of bodily fluids with information from data models similar to aspects of credit-based scoring. He said the Life Actuarial (A) Task Force is evaluating the actuarial soundness of the method for predicting mortality.

Mr. Andersen made a motion, seconded by Mr. Allen, that the Life Insurance and Annuities (A) Committee, through an existing working group or by appointment of a new working group, and in collaboration with the ongoing work of the Life Actuarial (A) Task Force, study the use of external data and data analytics in accelerated life underwriting, and draft and propose appropriate state guidance or best practices.

Mr. Birnbaum said he supports the motion for two reasons. He said the issues raised are issues of fairness and regulatory standards for pricing, underwriting and the treatment of consumers, and these should be addressed by the Life Insurance and Annuities (A) Committee. Secondly, he said it is important to identify the types of data that are used. He said there has been advances in the availability of genetic testing information, as well as the use of facial analytics, credit-scoring and driving records, etc. He said state insurance regulators need to know the types of data being used and how they are being used by insurers.

There was no further discussion, and the motion passed unanimously.
5. Discussed the Use of Data for Claim Settlements

Commissioner Ommen said the Working Group is ready to move to the review of another area of regulatory concern in the use of big data. He noted that the 2017 work plan identified several areas to be reviewed, including the use of big data in claim settlements.

Mr. Keen supported looking more deeply into the use of big data in claim settlement practices. He said Oregon hears often from consumers who are uncertain how insurers are arriving at claim settlement amounts.

Ms. Nelson asked if claim settlement practices include looking into claim valuation software in addition to antifraud efforts. Mr. Chou supported examining claim valuation software. Commissioner Ommen said the Working Group may also elect to examine claim valuation software.

Peter Kochenburger (University of Connecticut School of Law) said claim settlement practices is an important area to look into, because claims are where the insurer’s promise is tested. He noted that there is a line between models that determine valuations and models that predict behavior. He said he is concerned with the use of models for claims optimization, which evaluate the potential of settling a claim at a set amount based on the characteristics of the claimant. He believes this practice would be illegal in most, if not all, the states, and said it is worth examining whether it occurs.

Mr. Snyder said companies want to pay the fair value of a claim as quickly as possible. Technology has enabled many claims that were settled in a matter of days to now be settled within hours. He noted that antifraud statutes require companies to use models to identify and resist claims fraud.

Mr. Birnbaum said he supports looking into claim settlement practices. He said claim settlement practices and antifraud efforts are intertwined and use the same databases. He noted that claims databases are not subject to the protections of the federal Fair Credit Reporting Act (FCRA). He said that makes it incumbent on state insurance regulators to look into these issues. He said the Working Group should approach this with an open mind. The use of technology and big data has great benefits, but there are areas that need improvement.

Commissioner Ommen said there is consensus that the next area of review for the Working Group will be claims practices.

Having no further business, the Big Data (EX) Working Group adjourned.