



# NYCIRB

New York Compensation  
Insurance Rating Board  
733 Third Avenue  
New York, NY 10017  
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## Meeting of the Actuarial Committee (Videoconference)

### Actuarial Research

Thursday, October 28, 2021

### Meeting Minutes

Mr. Jeremy Attie presided

#### **Members**

American Home Assurance Company  
Arch Insurance Company  
Continental Casualty Company  
Continental Indemnity Company  
Hartford Accident and Indemnity Company  
New York State Insurance Fund  
Public Actuary  
Pennsylvania Manufacturers' Assoc. Ins. Co.  
QBE Insurance Corporation  
Travelers Indemnity Company  
Zurich North American Insurance Company

#### **Represented by**

Wenyuan Shi / Jose Couret  
Eli Lesser  
Julia Stenberg  
Justin Smith\*  
Nicholas Papacoda  
Timothy Koester / Hang Fan  
Mark Priven / Daniel Shaw  
Scott Curlee  
John Celidonio  
Brian Clancy  
Mauro Garcia / Anthony Pragovich

#### **Non-Voting Attendees**

Greater New York Mutual Insurance Company  
Liberty Mutual Fire Insurance Company  
North American Specialty Insurance Corporation  
Technology Insurance Company

Timothy Wang  
Neal Leibowitz  
Kristen Tripp / Dmitry Papush  
Bryan Ware

#### **Others Present**

National Council on Compensation Insurance

Donna Glenn / Brett Foster  
Nadege Bernard-Ahrendts

New York Compensation Insurance Rating Board

Jeremy Attie / Ziv Kimmel  
Brett King / Guo Harrison  
Ben Witkowski / Amy Chen  
Peter Zhou / CJ Mohin  
Dihui Zhu / Ziyun Hu  
Colette LeRoux / Nicholas Wong  
Thomas Nowak / Daniel Gadasi

\* Not present for the meeting

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Prior to the consideration of the agenda, Mr. Jeremy Attie read the anti-trust compliance policy statement, which is annexed to these meeting minutes for reference.

Mr. Attie welcomed all of the attendees.

### Experience Rating Update

Mr. Ziv Kimmel reminded the Committee that during the April 2020 meeting of the Actuarial Committee, the Committee reviewed and approved the Rating Board's proposed revisions to the experience rating formula. Subsequently, the revised edition of the Experience Rating Plan, which includes the updated formula, was filed and approved by the New York State Department of Financial Services as announced in R.C. Bulletin 2540. Mr. Brett King presented the Committee with an update on the Rating Board's activities relating to implementation of the revised formula. Mr. King described the various educational materials available to industry stakeholders on the Rating Board [website](#). In addition, Mr. King provided information relating to the Experience Rating Mod Estimator application, which is currently under development. Mr. Kimmel further reminded the Committee that New York is departing from the interstate rating system and that carriers should be prepared to accept New York only mods for risks that are currently interstate rated.

### Hazard Group Analysis

Mr. King presented the Committee with an update on the Rating Board's Hazard Group Analysis. The presentation was included as Exhibit A to the agenda.

Mr. King provided background information on Hazard Group assignments and discussed similar work done by other rating bureaus. Specifically, Mr. King described the hazard group decimal system utilized in California. Mr. King described various metrics that were examined as potential predictors of the proper hazard group assignment for highly credible class codes and proceeded to explain the challenges associated with assigning classes with low claim volume to a specific hazard group. Mr. King described how principal component analysis can be used to reduce the dimensions used in analysis of highly correlated data, such as excess ratios. Using principal component analysis, Mr. King demonstrated how information from large classes can be leveraged via sampling to understand the predictive power of small classes and potential ways to limit the impact from outlier claims in less credible classes.

A Committee member suggested examining the relationship between claims of different injury type within a class, such as the ratio of permanent partial claims to medical only claims, as an additional predictive metric. Another Committee member opined that the T-test can be used

for comparison of highly credible classes but may not be as informative when examining low credibility classes.

Several Committee members agreed that while the actuarial analysis may provide useful information to underwriters on class hazard group assignments for highly credible classes, for lower credibility classes underwriters input may be more indicative. Specifically, underwriters' input on class homogeneity and similarities between of operations among classes is particularly relevant when determining the proper class hazard group assignment.

Several Committee members suggested that a decimal system would be helpful for informational purposes. A Committee member cautioned that the utilization of a decimal system in New York would imply a higher level of precision in the analysis than the actual precision, especially for classes with low credibility.

Mr. King indicated that the next steps in the process would include clustering and grouping of different classes, as well as investigation of classes that have experience that doesn't line-up with their hazard group.

Committee members suggested further that information from large claim studies be leveraged to better understand information from some classes, such as classes with more frequent motor vehicle accidents. Other suggestions included considering (i) the hazard group assignments in other jurisdictions and (ii) information on different distributions of losses between indemnity and medical for different classes across jurisdictions. Mr. King agreed that these items should be considered as part of the continued research.

### Loss Dispersion

Mr. King presented the Committee with an update on the Rating Board's Loss Dispersion Analysis. The presentation was included as Exhibit B to the agenda.

The presentation included an overview of the dispersion process and a description of potential enhancements to prior loss dispersion work. Specifically, Mr. King described several potential differences between future dispersion work and prior work, including (i) the treatment of crossover claims, (ii) the assumed lognormal distribution of loss development factors, (iii) modeling reopened claims and (iv) modifying the constant variance assumption.

Mr. King suggested using sampling to model the loss development instead of the dispersion process. Several Committee members agreed that this would get faster and

potentially more accurate results. A Committee member cautioned that sampling may not work well at the higher entry ratios.

Mr. King informed the Committee that the next steps would include exploration of the sampling approach and the examining different options for modeling development beyond 10<sup>th</sup> report.

A motion was made to adjourn the meeting and the motion was approved.



**New York Compensation Insurance Rating Board**  
**Antitrust Compliance Policy Statement**

It is the policy of the New York Compensation Insurance Rating Board (“Rating Board”) to comply with all laws applicable to its conduct and, specifically, with state and federal antitrust laws which govern its operations.

The basic objective of the antitrust laws is to preserve and promote competition and the free enterprise system. Broadly stated, the antitrust laws require that business people make independent business decisions without agreement with their competitors.

It is the policy of the Rating Board to comply with the New York State Insurance Law. Specifically, neither the Rating Board nor its members should interfere with the right of any insurer, to the extent permitted by the Insurance Law, to seek to make its rates or forms of policy independently, or to charge rates or to offer forms of policies different from those included in filings made by the Rating Board with the New York State Department of Financial Services.

The activities of the Rating Board are limited to those authorized by law and exchanges of information through the Rating Board should be for no other purpose. Meeting among members of the Rating Board who are competitors, even for a lawful purpose, could expose participants to the risk of an inference of unlawful agreement. It is therefore expected that you will confine your joint activities to those which are within the lawful purposes of the Rating Board.