

2019 Casualty Loss Reserve Seminar

September 16-18, 2019 • Fairmont Austin • Austin, TX

The Casualty Loss Reserve Seminar (CLRS) is a forum for presenting and discussing significant issues in loss reserving. The program offers a range of topics to interest professionals and students in a number of related disciplines. Moreover, the seminar meets the continuing education needs of actuaries and other professionals whose responsibilities include loss reserving. Attendees will leave this year's seminar better able to understand, evaluate and estimate loss reserves.

The seminar is recommended for risk and insurance managers, actuaries, actuarial students, accountants, underwriters, insurance regulators, and others who require an understanding of state-of-the-art developments, as well as traditional loss reserve methods and models. Generally, no advanced preparation, previous education, work experience or background knowledge are required, unless specifically stated within the session description.

The seminar uses a session calculator rating with a scale ranging from 1 (basic) to 3 (advanced) to provide information on the session's technical nature. Sessions on advanced reserving topics, including emerging and regulatory issues, reinsurance and accounting, are designed for experienced loss reserving professionals.

Intermediate reserving topics are recommended for individuals already familiar with basic evaluation techniques who wish to increase their knowledge of loss reserve methods and models. Sessions on basic reserving topics are recommended for individuals with limited or no experience evaluating loss reserves. In addition, a wide range of special topics will interest the general audience at all levels of experience.

The seminar will interest those seeking education within the field of study of specialized knowledge and applications. The seminar follows a group-live format and the sessions are generally made up of a panel of presenters, many using slides to augment the presentations. Illustrative numerical examples are used whenever possible. Practical approaches to problems will be presented and discussion will be encouraged. Participants can expect to gain awareness and insight into difficult issues and are encouraged to share their own ideas.

Joint Program Committee for the Casualty Loss Reserve Seminar

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Tweet about the RPM educational sessions and meeting events using the hashtag #CASCLRS19.



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Please visit our website at www.casact.org and click the social media widgets to find our pages!



Download the CAS Meeting App



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General Information

Continuing Education

CAS

The CAS Continuing Education Policy applies to all ACAS and FCAS who provide actuarial services. Actuarial services are defined in the CAS Code of Professional Conduct as “professional services provided to a Principal by an individual acting in the capacity of an actuary. Such services include the rendering of advice, recommendations, findings or opinions based upon actuarial considerations.”

Members who are or could be subject to the continuing education requirements of a national actuarial organization can meet the requirements of the CAS Continuing Education Policy by satisfying the continuing education requirements established by a national actuarial organization recognized by the Policy.

This activity may qualify for up to 15* CE Credits for the Casualty Loss Reserve Seminar for CAS members. Breakfast Roundtable attendees may add a maximum of 0.9* CE Credits per roundtable. Workshop attendees may add a maximum of 7.2* CE Credits. Participants should claim credit commensurate with the extent of their participation in the activity. CAS members earn 1 CE Credit per 50 minutes of educational session time not to include breaks or lunch.

*The amount of CE credit that can be earned for participating in this activity must be assessed by the individual attendee. It also may be different for individuals who are subject to the requirements of organizations other than the American Academy of Actuaries.

CPCU

Chartered Property Casualty Underwriters (CPCUs) attending this year’s Casualty Loss Reserve Seminar will be awarded a maximum of 10 points under the Continuing Professional Development Program for CPCUs. Forms to receive credit will be available at the seminar.

CPA

Certified Public Accountants attending this year’s Casualty Loss Reserve Seminar may receive continuing professional education (CPE) credits. One CPE credit may be received for each full 50-minute hour of seminar participation, up to 10 credits.

Registration Hours

The registration desk will be open as follows:

- | | |
|--|-----------------------|
| • Monday, September 16, 7:00 a.m. – 1:30 p.m. | Workshop Registration |
| • Monday, September 16, 2:30 p.m. – 7:00 p.m. | Seminar Registration |
| • Tuesday, September 17, 7:00 a.m. – 6:00 p.m. | Seminar Registration |
| • Wednesday, September 18, 7:00 a.m. – 2:00 p.m. | Seminar Registration |

Hotel Information

Fairmont Austin
101 Red River Street
Austin, TX 78701
Phone: (512) 600-2000

Checkout time is 12:00 p.m. Those checking out before the conclusion of the meeting may check their bags at the bell desk of the hotel. The Casualty Actuarial Society is not responsible for lost or stolen items left unattended in public areas of the hotel. CAS staff is unable to accept any bags or other personal items at the registration desk.

Security Note: When leaving the meeting room for an extended period of time, please take valuables and personal belongings with you. Neither the CAS nor the Fairmont Austin may be held responsible for lost or stolen items.

Additional Information

For more information on future seminars or other CAS opportunities, contact the CAS office at (703) 276-3100 or visit casact.org/education.

Interactive Livestreaming at CLRS

Participants will join a select few of the CLRS sessions virtually. Viewers will participate live in a few of the seminar sessions remotely from around the globe. Participants attending virtually will have the opportunity to interact with other virtual attendees as well as pose questions to the panel during the session.

Livestreaming Sessions (Tuesday, September 17 – Congressional CC, 3rd Floor)

- | | |
|-------------------------|--|
| 8:00 a.m. – 9:30 a.m. | The Essential Role of the Actuary in Innovation |
| 10:00 a.m. – 11:15 a.m. | NextWave Actuarial: Achieving Actuarial Excellence |
| 11:30 a.m. – 12:45 p.m. | Reserving Challenges for the Sharing Economy |
| 1:45 p.m. – 3:00 p.m. | When Bad Things Happen to Good Reserves |
| 3:30 p.m. – 4:45 p.m. | Three Perspectives on Peer Review |

Exhibitor Raffle

We are holding a raffle for attendees who visit all of our participating exhibitors. The winner will receive a \$250 American Express gift card.

Raffle Form: In your registration bag you received a raffle entry form. Visit each participating exhibitor and ask a representative to initial your form. Once you have initials from all participating exhibitors, submit the form at the Registration Desk by 12:00 pm on September 18 to be entered into the drawing.

Mobile App Badge Game

You can earn a variety of virtual badges by completing certain tasks throughout the seminar. Size up the competition by checking the Leaderboard to see your own earned badges and to make sure you're staying ahead of the game! For those who earn that top spot within the game, you will have a chance to win a \$100 American Express Gift Card.

To play the badge game, simply download the conference app (see page 2) and sign into your app using your email address and password. Once you have signed in, you will be able to "check-in" at different events and locations. Check how you're doing by viewing the Leaderboard, located behind the MORE or MORE RESOURCES button. Your earned badges will be displayed on the Leaderboard and next to your name under the ATTENDEES button.

Best Session Award

Before the closing general sessions, you will have the opportunity to vote for the best concurrent session of the conference. The speakers from the winning session will each receive a \$100 American Express gift card. (And bragging rights for the next year!) Voting will be available in the CAS meeting app. Please make sure you download the meeting app and vote for your favorite concurrent session beginning at 12:00 p.m. on Wednesday, September 18.

Paperless Seminar

Green seminars incorporate environmental considerations to minimize negative impacts on the environment. The CAS has taken a step in that direction by making the Casualty Loss Reserve Seminar "paperless," which means:

- Paper copies of session handouts will not be provided in the meeting rooms.
- Paper copies of the list of attendees will not be distributed, though a few copies will be available for review at the registration desk.
- Seminar evaluations will be administered electronically.
- Session slides will be posted on the CAS website at least two weeks in advance of the seminar so that attendees may download, print and bring handouts as desired. Please note that not every presenter will choose to provide a presentation for his or her session.

Attendees are encouraged to go online to view the list of attendees, complete the online evaluation forms and download presentations for the sessions they attend. The CAS appreciates your participation in this effort to reduce the seminar's carbon footprint and impact.

Recommended Attire

Business casual attire is suggested for all sessions as well as the receptions on both evenings. Since meeting room temperatures and personal comfort levels vary, it is recommended that you bring a sweater or jacket to the sessions. In Austin, the average high temperature during September is 91 degrees F and the average low is 69 degrees F.



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2019 Casualty Loss Reserve Seminar Rating System



No prior knowledge of the subject matter is assumed.
Little or no technical content.



General knowledge of the subject matter is assumed.
Moderate technical content.



General or working knowledge of the subject matter is assumed.
Moderate to highly technical content.

More detail about the session and speakers is found on the C.A.S Meeting App (see page 2). All sessions will be recorded, except where indicated.



Checkbox for Personal Attendance Record



Recorded Session



Livestreamed Session

Workshops

*Pre-registration is required for all workshops

Monday, September 16, 8:00 a.m. – 4:00 p.m.

W-1: Introduction to R

Verbena, 4th Floor, 4th Floor

If you like math, statistical models and property-casualty reserving, you cannot miss this workshop. Attendees will experience an interactive and hands-on approach to learning all about R and its application to insurance.

Possible workshop topics covered will include:

- Learning how to install R, R Studio and any of the many R packages.
- Grabbing, visualizing, modeling and saving your data.
- Using new models like Munich chain ladder and Dave Clark growth curve for a reserving study.

Attendees must bring a laptop (PC or Mac) with R and RStudio installed in advance of the workshop (instructions and support for this will be provided).

Facilitators:

Scott Sobel, Principal, Oliver Wyman Actuarial Consulting
Saumil Padhya, Actuarial Analyst, Deloitte Consulting LLP
Steven Berman, Specialist Leader, Deloitte Consulting, LLP

❑ 🎯 W-2: Triangles Reimagined

Wisteria, 4th Floor

Imagine creating alternative case reserves, based on predictive modeling from objective claim characteristics, in order to restate the case-incurred triangle (think Berquist-Sherman, but with a scalpel instead of a chainsaw). Also, picture the idea of creating a whole new type of detailed reserve: a policy IBNR reserve that reflects anticipated emergence. This policy-level reserve, together with paid amounts and alternative case reserves, would form the basis for a new triangle, one with considerably little, if any, development, but based on detailed data leading to the reserve. The advantage of the approach is to avoid issues with changing case reserve adequacy and changes in mix.

Facilitators: Christopher Gross, CEO, Gross Consulting
Bret Shroyer, Consulting Actuary, Gross Consulting
Steven Lacke, Gross Consulting

❑ 🎯 W-3: Reserving Bootcamp

Sunflower, 4th Floor

What better way to jump-start or refresh your loss reserving skill than in this one-day loss reserving boot camp? This session will enhance your basic and intermediate skills and prepare you for the more advanced loss reserving topics to be presented in the CLRS. Participants will be part of a loss reserving team evaluating and estimating reserves from data organization to selecting the best estimate. Using hands-on learning, this session will divide participants into small teams of five to seven. The teams will work with experienced loss reserving professionals, using realistic loss and expense claims data. Sessions goals are to build triangles; compute and select loss development factors; perform a variety of loss and loss adjustment expense reserving methods; compare the results of various methods and their strengths and weaknesses; review additional information and take that into consideration in the methods and estimates; and make final reserve selections.

This workshop is appropriate for actuaries as well as non-actuaries. A laptop with WiFi capabilities will be required.

Facilitators: Jane Taylor, Consulting Actuary, Huggins Actuarial Services, Inc.
D. Scott Lamb, Senior Vice President, McKee Risk Management
R. Scott Cederburg, BDO

❑ W-4: The Opinion Writers' Lab for Effective P&C Opinions

Poppy, 4th Floor

Your actuarial opinion and reports are reviewed and analyzed for appropriateness to different stakeholders, including company management, auditors, regulators, court officials and jurors. Each group has different needs for information and you will want to be able to communicate effectively to all.

This workshop will deepen your expertise on the latest requirements for P&C Statements of Actuarial Opinions with a review of actuarial qualification standards, standards of practice and interactive case studies.

In the day-long session, the workshop will offer attendees the opportunity to:

- Gain an understanding of regulatory/company/auditor perspectives and expectations.
- Get current on the latest regulations and standards.
- Delve deeper into subjects such as RMAD, ranges, documentation, data and report writing.
- Focus on communicating effectively to various stakeholder groups.

Facilitators: Kathleen Odomirok, Principal, EY
 Miriam Fisk, Property & Casualty Actuary, Team Leader, Texas Department of Insurance
 Michael Toothman, President, Actuarial & Risk Consulting Services
 Derek Freihaut, Rose-Hulman Institute of Technology
 Margaret Germani, Consultant

❑ W-5: Bayesian Inference and Reserving Models

Marigold, 4th Floor

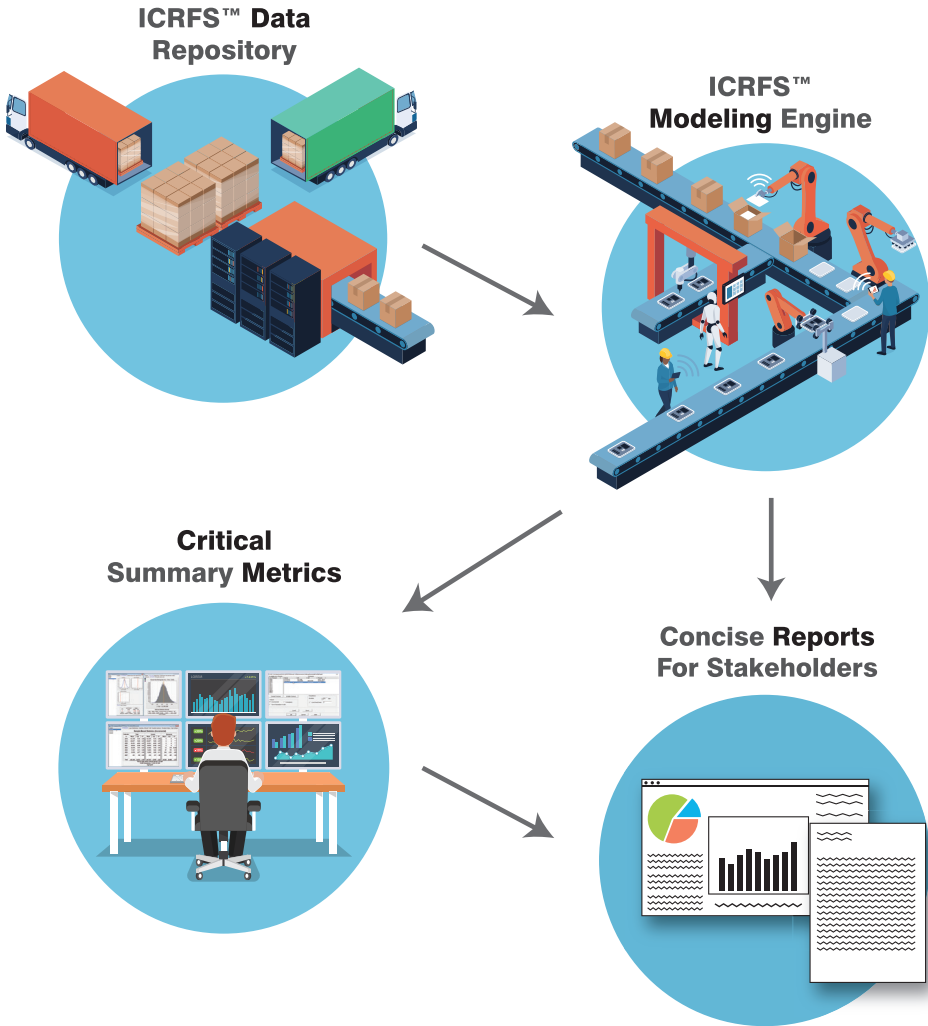
This workshop is designed for actuaries who want a hands-on practical introduction to building reserving models using Bayesian inference. It will start with an approachable introduction to Bayesian inference. Next, it will review the underlying assumptions behind several popular reserving methods, then use a combination of R and Stan (<http://mc-stan.org> open source Bayesian estimation and simulation software) to build these and new reserving models using Bayesian techniques. This is not a mathematically intensive session. The focus will be on understanding, testing and changing the underlying model assumptions. Optional pre-work will be made available before the workshop.

Facilitator: Stephen Lienhard, Senior Vice President, Guy Carpenter & Co. LLC

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We look forward to seeing you at booth #5

General Sessions

GS-1: A Recent History of the Statement of Actuarial Opinion, Solvency Regulation and the Actuarial Profession in the United States

Opening/General Session, September 16, 4:15 p.m. – 5:30 p.m., Congressional CC, 3rd Floor

In 1980 the National Association of Insurance Commissioners (NAIC) adopted the first property-casualty Statement of Actuarial Opinion (SAO) requirement related to loss reserving. This led to a surge in the demand for casualty actuaries generally and consulting actuaries in particular. In retrospect, developments in the SAO, solvency regulation and the actuarial profession itself have been astounding. This session five a history of the

evolution of the SAO and solvency regulation in the United States, providing commentary and perspective on how actuaries have been challenged and contributed to solvency regulation. In addition, the periodic confrontations from legislators and rating agencies are highlighted. Lastly, panelists will prognosticate on developments in the SAO and solvency regulation to come.

We begin the journey in 1979.

Moderator/Speaker: Joseph Herbers, Managing Principal, Pinnacle Actuarial Resources, Inc.

Speakers: Aaron Hillebrandt, Director and Consulting Actuary, Pinnacle Actuarial Resources, Inc.

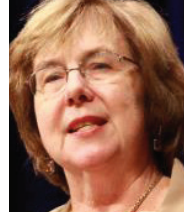
Patricia Teufel, University of Connecticut



Joseph Herbers



Aaron Hillebrandt



Patricia Teufel

❑ 🎥 FS-1: The Essential Role of the Actuary in Innovation 🎥

Business Session/Featured Speaker, September 17, 8:00 a.m. – 9:30 a.m., Congressional CC, 3rd Floor

Please join us in a presentation that will examine the future of the actuary amongst innovations in insurance.

This presentation will cover:

- The forces influencing the future of the insurance industry.
- How those forces and trends can be used to formulate a road map for the future of the industry.
- The challenges and opportunities for actuarial science in the context of innovation.

This presentation includes actual case studies and is relevant for insurance carrier C-level positions to those in middle management. This is equally true for risk managers in organizations that self-manage risk.

Moderator: Anthony Bustillo, Safety National

Speaker: Guy Fraker, Chief Innovation Officer, Insurance Thought Leadership



Guy Fraker

❑ 🎥 FS-2: The Future of Automobiles and Automobile Insurance: Separating Scientific Fact from Fiction

Featured Speaker/Closing, September 18, 1:15 p.m. – 2:30 p.m., Congressional CC, 3rd Floor

Collision avoidance systems and automated vehicles have the potential to revolutionize mobility and significantly impact the insurance industry. Headlines are full of hype and it can be hard to separate science from fiction. This presentation will discuss and answer key questions using data, scientific studies and engineering evaluations. Participants will leave with a better understanding about how these technologies will impact the insurance industry.

We will discuss the following questions about collision avoidance systems and automated vehicles:

- Are the technologies associated with reductions in claims?
- Do drivers disable the technologies?
- Do the technologies change the way drivers operate their vehicles?
- Are drivers comfortable with the way these systems operate?
- How many vehicles are fitted with these systems?

Bring your opinions, knowledge and questions about these new technologies and be prepared to engage in a thoughtful conversation about their impact on our industry.

Moderator: Anthony Bustillo, Safety National

Speaker: Matthew Moore, Senior Vice President, Highway Loss Data Institute



Matthew Moore

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Roundtable Discussions

Pre-registration is not required to attend a roundtable discussion. A maximum of 12 participants will be allowed in each roundtable discussion. Participation is first come, first served.

☐ ●● RT-1: Environmental Liabilities

Tuesday Roundtable Discussion, September 17, 7:00 a.m. – 7:45 a.m., Marigold, 4th Floor

The group will discuss recent environmental industry loss experience as well as key considerations in evaluating environmental liabilities. We will also share opinions on the industry outlook as well as the relationship between environmental universe of losses, EPA and the impact of the change in administration.

Facilitators: Terri Kremenski, Consulting Actuary, Willis Towers Watson
Kwame Davis, Consulting Actuary, Willis Towers Watson

☐ ●● RT-2: How to Talk With Your Claims Department

Tuesday Roundtable Discussion, September 17, 7:00 a.m. – 7:45 a.m., Sage, 4th Floor

This roundtable will discuss key points to consider during your conversion and how to interpret the answers into your reserving work.

Facilitator: Adam Blais, Claims Management Consultant, Milliman, Inc.

☐ ●● RT-3: Construction Defects

Tuesday Roundtable Discussion, September 17, 7:00 a.m. – 7:45 a.m., Poppy, 4th Floor

Construction defects have continued to impact the insurance industry. Please join us in this discussion about methodologies and trends.

Facilitator: Ronald Kozlowski, Lead Consultant, RTK Actuarial & Professional Services

☐ ●● RT-4: Practical Applications of Machine Learning

Tuesday Roundtable Discussion, September 17, 7:00 a.m. – 7:45 a.m., Sunflower, 4th Floor

This roundtable is an example-driven discussion on applications of machine-learning algorithms throughout an insurance company in areas such as claims, underwriting and marketing.

Facilitator: Michael Paczolt, Consulting Actuary, Milliman, Inc.

☐ 🎧 RT-5: Questions on Qualifications Standards

Wednesday Roundtable Discussions, September 18, 7:00 a.m. – 7:45 a.m., Lantana, 4th Floor

The NAIC is reviewing and changing qualification standards for property-casualty appointed actuaries. The Committee on Property and Liability Financial Reporting (COPLFR) will be preparing information to help appointed actuaries and others once the qualification changes are finalized. Please join us at this roundtable to help COPLFR prepare for these changes. Your questions and ideas will help so that future communication materials on this subject (e.g., practice note, webinar, etc.) will meet the needs of the membership.

Facilitator: Lise Hasegawa, Vice President and Reserving Actuary, MetLife Auto & Home

☐ 🎧 RT-6: Investor-Funded Litigation

Wednesday Roundtable Discussions, September 18, 7:00 a.m. – 7:45 a.m., Iris, 4th Floor

This is a follow-up session to Jonathan Colman’s presentation, “Investor-Funded Litigation” (LOB-2). In a smaller group setting, attendees can ask the speaker some probing questions about this fast growing space and can brainstorm on how investor-funded litigation might affect actuarial assumptions and analyses.

Facilitator: Jonathan Colman, Principal and Managing Attorney, Colman Law Group

☐ 🎧 RT-7: Health Care

Wednesday Roundtable Discussions, September 18, 7:00 a.m. – 7:45 a.m., Indigo, 4th Floor

Health care is always in the headlines, especially every two or four years. Are you tired of hearing non-actuaries talk about “Medicare for All”? Now is your opportunity to hear from two actuaries who are working in health care who can talk about emerging issues in a language we all understand —ActuarialSpeak. Join Kevin Ruggeberg and Kevin Donnelly to discuss how the latest changes may impact property-casualty lines. Please come prepared with questions and your own expertise as theirs lies strictly in health care.

Facilitators: Kevin Donnelly, Actuarial Consultant, United Healthcare

Kevin Ruggeberg, Consulting Actuary, Lewis & Ellis, Inc.

☐ 🎧🎧🎧 RT-8: Discussion on Tail Factors

Tuesday Roundtable Discussion, September 17, 7:00 a.m. – 7:45 a.m., Verbena, 4th Floor, 4th Floor

How do you estimate tail factors? This roundtable will host a discussion on tail factor methodology and ideas.

Facilitator: Abby Sternberg, Consulting Actuary, Milliman, Inc.

☐ 🎧🎧 RT-9: The Sharing Economy

Wednesday Roundtable Discussions, September 18, 7:00 a.m. – 7:45 a.m., Congressional CC, 3rd Floor

Following the “Reserving Challenges of the Sharing Economy” (LOB-3), meet with the session presenter to discuss how reserving for the sharing economy is different from traditional insurance markets. The discussion will include the pitfalls of traditional reserving in an emerging risk with little history.

Facilitator: François Morissette, Senior Principal, Oliver Wyman Actuarial Consulting

Concurrent Sessions

Advanced Reserving

☐ 🎧🎧🎧 AR-1: Beyond Numerology: A Practical Theory of LDF Interpolation 🎤

Concurrent Sessions 1, Tuesday, September 17, 10:00 a.m. - 11:15 a.m., Iris, 4th Floor

Many reserving actuaries use interpolation techniques to derive LDF at quarterly evaluation ages. The quarterly evaluation LDF are then used to update IBNR indications each quarter. There are different LDF interpolation techniques that give rise to different answers. Is there any reason to prefer one over another? As will be explained in this session, the answer is yes. Going beyond numerology, this session explores properties of LDF interpolation methods. One called inherited monotonicity states that beyond a given age, the indicated IBNR runoff pattern by quarter should be monotonically decreasing if the indicated IBNR runoff pattern by year is monotonically decreasing. Interpolation methods that fail to obey this property could produce IBNR indications that suffer from “algorithm-induced seasonality.” Several commonly used interpolates are vulnerable to this malady. This session will present other desirable properties of LDF interpolation techniques. It will feature a set of simple examples and graphs that illustrate what can happen when a property fails to hold. The goal is to provide participants with conceptual insights and practical tools for evaluating LDF interpolation methods.

Moderator: Chandrakant Patel, Amtrust Financial

Speaker: Ira Robbin, Department of Mathematics, Southern Connecticut State University

☐ ●●● AR-2: A Hands-On Introduction to Stochastic Loss Reserving with Bayesian MCMC Models

Concurrent Sessions 5, Wednesday, September 18, 8:00 a.m. - 9:15 a.m., Wisteria, 4th Floor

The session will start with a high-level introduction to the theory underlying Bayesian MCMC models. It will then describe Stan, a currently popular software package for implementing MCMC (see <https://mc-stan.org>). They will then move on to a simple stochastic loss reserve model. The session will cover convergence diagnostics, model selection statistics and graphical fit diagnostics.

Prerequisites to the course are some familiarity with R and RStudio. Registrants will be asked to bring their laptops and install R, RStudio with the “rstan,” “loo,” “data.table” and “ChainLadder” packages in advance of the class. (Go to <https://github.com/stan-dev/rstan/wiki/RStan-Getting-Started> to install “rstan.”) There will be a zip archive containing some pre-written scripts available before the start of the course.

Moderator: Rajesh Sahasrabudde, Partner, Oliver Wyman Actuarial Consulting

Speaker: Glenn Meyers, ISO – Retired

☐ ●●● AR-3: Stochastic Loss Reserving with Bayesian MCMC — A Case Study

Concurrent Sessions 7, Wednesday, September 18, 11:15 a.m. - 12:30 p.m., Verbena, 4th Floor, 4th Floor

Bayesian MCMC models enable a wide variety of models to be applied to a loss triangle. The output from those models aid in calculating ranges of actuarial estimates or even a cost of capital risk margin. A problem with this ability to fit a wide variety of models is that one has to choose which one to use.

This session takes two loss triangles based on paid and incurred data from a real company, having the following characteristics: (1) rapid premium growth; (2) changing claim settlement rates; and (3) changing loss reserving practices. It illustrates goodness of fit and graphic diagnostics that identify these problems. It then proposes a Bayesian MCMC model to use to obtain the best estimate of the loss liability and its range of possible estimates under these conditions.

Moderator: Rajesh Sahasrabudde, Partner, Oliver Wyman Actuarial Consulting

Speakers: Glenn Meyers, ISO - Retired

Robert Wolf, Vice President and Chief Actuary, StoneTrust Commercial Insurance Company

❑ 🎧🎧 AR-4: LDF Curve-Fitting: Blending Maximum Likelihood with Industry Benchmarks 🎤

Concurrent Sessions 3, Tuesday, September 17, 1:45 p.m. - 3:00 p.m., Indigo, 4th Floor

This session builds on the 2003 paper “LDF Curve-Fitting: A Maximum Likelihood Approach” and shows how prior knowledge can be integrated into the fit. Curve-fitting is useful for smoothing and extrapolating development patterns as well as for dealing with irregular evaluation ages (i.e., incomplete diagonals). Incorporating prior information such as industry benchmarks can help stabilize the fit. Including prior knowledge is also related to popular techniques such as cross-validation. A case study will be presented using data from the CAS database of Schedule P triangles.

Speaker: David Clark, Senior Actuary, Munich Re America, Inc.

❑ 🎧🎧🎧 AR-5: Ranges and Percentiles for Reserves: Three Methods for Each 🎤

Concurrent Sessions 4, Tuesday, September 17, 3:30 p.m. - 4:45 p.m., Indigo, 4th Floor

Risk-bearing entities increasingly want more information about estimates of unpaid loss and ALAE beyond a point estimate. Actuaries are asked to provide ranges of estimates and tables of percentile estimates. We will present three methods for developing ranges, three methods for developing percentiles, and have a brief conversation on each.

Moderator/Speaker: Daniel Gibson, Oliver Wyman Actuarial Consulting

Speaker: Arthur Whitson, Principal, Oliver Wyman Actuarial Consulting

❑ 🎧🎧 AR-6: Don't Get Caught with Your Correlations Down (or Up): Capitalizing Risk in a Volatile World 🎤

Concurrent Sessions 4, Tuesday, September 17, 3:30 p.m. - 4:45 p.m., Poppy, 4th Floor

Getting the inter-line correlations right has a massive impact on levels of required regulatory risk capital. Correlations need to be distinguished from shared trends and economic drivers. There are different kinds of correlations that are important for loss-modelling — parameter and process volatility correlations. Get a clear handle on these concepts and learn how to incorporate them into model optimisation. You'll learn to distinguish between accident- and calendar-year drivers and volatility correlations using a number of real-life lines of business. It is necessary to begin by identifying the trends that shape the loss profile for each LOB. The method of seemingly unrelated regressions will be explained. In this way, allowance is made for correlations from the very start of modeling multiple lines, instead of annexing them to prior distributions. Risk-capital metrics and allocation for ORSA and Solvency II will also be treated.

Moderator/Speaker: David Odell, Senior Statistician, Insureware Pty Ltd.

☐ ●●● AR-7: Reserve Developments, New Technologies and Higher Demands: Exploring the Evolution of the Reserving Team

Concurrent Sessions 7, Wednesday, September 18, 11:15 a.m. - 12:30 p.m., Lantana, 4th Floor

This session will look at how financial transformations are being applied in the reserving world. We'll explore how the demands for more control and quicker closing interact with the availability of more data and the desire for greater insight. Attendees will learn how new technologies, use of robotic automation, and implementation of new approaches will change how the reserving team deploys resources. We'll discuss the changing skills required and some of the challenges that this may introduce. The audience will be asked to contribute their own experiences and provide observations for how they see their work evolving. They will leave with a greater understanding of how reserving teams are balancing the statutory and compliance side of their work with access to greater analytics and —ultimately— with some ideas on how to take their reserving to the strategic level.

Moderator: James Mackay, Willis Towers Watson

Speaker: Timothy Pratt, Chief Actuary, Liberty International Underwriters

☐ ●●●● AR-8: A Quantum Leap in Benchmarking Unpaid Claims

Concurrent Sessions 3, Tuesday, September 17, 1:45 p.m. - 3:00 p.m., Marigold, 4th Floor

Unpaid claim distributions are a critical component of many different risk management applications. Prior research has suggested that commonly used models tend to underestimate the breadth of the distribution of possible outcomes so benchmarks to help gauge the quality of the distribution are needed. Extensive research based on over 30,000 triangles of industry data over a 10-year span has provided new insights into benchmarking all models, including deterministic ranges and correlation. These insights have important implications for all uses of reserve variability modeling, including capital modeling and enterprise risk management that will be illustrated by comparing actual results from common methods and models with new benchmarks derived from the research.

Moderator/Speaker: Mark Shapland, Principal and Consulting Actuary, Milliman, Inc.

☐ AR-9: Loss Reserve Variability: Two Fundamental Models — Part One

Concurrent Sessions 5, Wednesday, September 18, 8:00 a.m. - 9:15 a.m., Lantana, 4th Floor

Understanding reserve variability has become an important skill for the practicing actuary. Moving from point estimates and deterministic ranges to distributions of possible outcomes is one of the critical quantitative building blocks for effective enterprise risk management. Insurance executives, regulators, risk managers and rating agencies are all raising the bar for the actuarial profession with respect to discussing and disclosing insurance risk calculations.

Based on material from the Reserve Variability Limited Attendance Seminar, this mini workshop will cover two commonly used models for reserve variability: Mack and ODP bootstrap. The instructors will present both the background to the models and how to implement them using hands on exercises.

This session is limited to the first 40 participants and will be run in two back-to-back concurrent sessions. The first session will introduce the Mack model and the second session will introduce the ODP bootstrap model. Excel files will be available prior to the session and participants are expected to bring their laptop to the sessions in order to complete the exercises.

Moderator/Speaker: Mark Shapland, Principal and Consulting Actuary, Milliman, Inc.

☐ AR-10: Loss Reserve Variability: Two Fundamental Models — Part Two

Concurrent Sessions 6, Wednesday, September 18, 9:45 a.m. - 11:00 a.m., Lantana, 4th Floor

Understanding reserve variability has become an important skill for the practicing actuary. Moving from point estimates and deterministic ranges to distributions of possible outcomes is one of the critical quantitative building blocks for effective enterprise risk management. Insurance executives, regulators, risk managers and rating agencies are all raising the bar for the actuarial profession with respect to discussing and disclosing insurance risk calculations.

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Moderator/Speaker: Mark Shapland, Principal and Consulting Actuary, Milliman, Inc.

❑ AR-11: Isn't it True? Questioning Our Conventional Wisdom

Concurrent Sessions 2, Tuesday, September 17, 11:30 a.m. - 12:45 p.m., Indigo, 4th Floor

The session will promote a discussion by questioning several widely held actuarial beliefs. Is the Bornhuetter-Ferguson method deterministic? Do link-ratios have a statistical meaning? Is severity risk diversifiable in a loss reserving context? In each case, the counterpoint is analyzed as a convolution equation. The session will use polling to gauge audience opinions before and after a discussion of each topic.

Moderator: Rajesh Sahasrabudde, Partner, Oliver Wyman Actuarial Consulting

Speaker: James Ely, President, Convolved, Inc.

❑ AR-12: Reserve Variability: A Practical Guide

Concurrent Sessions 7, Wednesday, September 18, 11:15 a.m. - 12:30 p.m., Indigo, 4th Floor

Focusing on the practical aspects of a variability study, the first half of this session will discuss how analysis of reserve variability is performed in a real-world environment, including some of the common obstacles and ways to overcome them. Panelists will examine the strengths and weaknesses of several variability models. A framework will be provided which will enable the practitioner to select from a variety of methods. The second half will center on the uses and results of a variability study at an insurer. Panelists will discuss some of the drivers of variability and show how various portfolio attributes can impact variability in unexpected ways. Other topics discussed will include how outputs from the variability study can help answer other business questions as well as ways a variability study might require refinement depending on which areas of the distribution are being considered.

Moderator/Speaker: Christina Gwilliam, Willis Towers Watson

Speakers: Jonathan Sappington, Consultant, Willis Towers Watson
Simon Day, Senior Vice President and Chief Actuary, AEGIS Insurance Services

❑ AR-13: Bayesian Techniques: From Theory to Practice

Concurrent Sessions 4, Tuesday, September 17, 3:30 p.m. - 4:45 p.m., Marigold, 4th Floor

The first half of this session will cover Bayesian stochastic models, highlighting the evolution from prior to posterior distributions assumptions that employ likelihood functions calculated from a GLM model. The session will describe the underlying Bayesian statistical framework in simple terms and how that is employed within the reserving context. Some popular Bayesian sampling techniques will be described in layman's term.

The second half of this session will demonstrate how the theories introduced in the first half can be deployed in practice by examining select models from Meyers' monograph and going through one example step-by-step. This session will conclude with a discussion on the strengths and weaknesses of these Bayesian models compared to bootstraps and the deterministic methods, ending with a Q&A.

Moderator/Speaker: Manolis Bardis, Senior Consultant, Willis Towers Watson

Speaker: Enbo Jiang, Actuarial Analyst, Willis Towers Watson

❑ 🎧 AR-14: Triangle-Free Reserving: The Power of Disaggregated Data 🎤

Concurrent Sessions 4, Tuesday, September 17, 3:30 p.m. - 4:45 p.m., Lantana, 4th Floor

This presentation will incorporate an overview of triangle-free reserving techniques outlining strengths and challenges of applying these methods. There will also be a comparison of performance to other established reserving methodologies. The presentation will conclude with identifying instances where triangle-free techniques would be expected to outperform the triangle-based approaches.

Moderator/Speaker: Trevar Withers, Director, Willis Towers Watson

Speaker: Brian Mittleberg, Consultant, Willis Towers Watson

❑ 🎧 AR-15: Clustering: Endgame! 🎤

Concurrent Sessions 6, Wednesday, September 18, 9:45 a.m. - 11:00 a.m., Sunflower, 4th Floor

Cluster analysis is a collection of statistical tools designed to group similar data objects. This session will look at these tools applied to grouping similar loss development patterns. The difficulty in grouping loss development patterns comes from their multidimensional aspect. Outliers and noise points create additional challenges. Panelists will discuss some useful ways to visualize clusters and share some practical successes and challenges in applying clustering on loss development triangles. Topics include “hard” clustering such as k-means and “soft” or “fuzzy” clustering with similarities to traditional credibility theory.

Moderator/Speaker: Diana Rangelova, Munich Re America, Inc.

Speaker: David Clark, Senior Actuary, Munich Re America, Inc.

❑ 🎧 AR-16: Actuarial Case Reserves 🎤

Concurrent Sessions 5, Wednesday, September 18, 8:00 a.m. - 9:15 a.m., Poppy, 4th Floor

The use of case reserves in actuarial development triangles is ubiquitous. Many of the problems encountered in loss reserving stem from systematic changes and inaccuracies in the determination of case reserves. Case reserves currently serve two primary roles — to facilitate the appropriate settlement of each claim and to provide financial information. These goals are intrinsically at odds with each other. As a profession, we need to move beyond the use of subjectively determined case reserves to using case reserves that are more appropriate for loss reserving and that we have constructed directly using objective claim and exposure information. Separating the dual roles of case reserves will benefit not only the actuaries in their reserving and pricing work, but also the claim settlement function.

Moderator/Speaker: Christopher Gross, CEO, Gross Consulting

Financial Reporting

FR-1: Data, Documentation and Report Writing

Concurrent Sessions 5, Wednesday, September 18, 8:00 a.m. - 9:15 a.m., Sunflower, 4th Floor

Featuring members of American Academy of Actuaries' Committee on Property Liability Financial Reporting, this session will talk about ways to produce effective actuarial reports that support the actuarial opinion.

Moderator: Lise Hasegawa, Vice President and Reserving Actuary, MetLife Auto & Home

Speakers: John Gleba, Secretary/Treasurer, Madison Consulting Group, Inc.
Michelle Iarkowski, Specialist Leader, Deloitte Consulting LLP

FR-2: Financial Reporting of Portfolio Retroactive Reinsurance

Concurrent Sessions 3, Tuesday, September 17, 1:45 p.m. - 3:00 p.m., Sunflower, 4th Floor

The purpose of this session will be to define portfolio retroactive reinsurance, outline the NAIC rules that govern the recording of the transactions, examine the inconsistency in recording the transactions within the industry and discuss the impact of different reporting treatments on Schedule P and risk-based capital.

Moderator: Lise Hasegawa, Vice President and Reserving Actuary, MetLife Auto & Home

Speakers: George Levine, Director, KPMG, LLP
Ralph Blanchard, Vice President and Actuary, Travelers

FR-3: Bermuda EBS Actuarial Opinions and BSCR: An Update

Concurrent Sessions 2, Tuesday, September 17, 11:30 a.m. - 12:45 p.m., Poppy, 4th Floor

The Bermuda Economic Balance Sheet Technical Provisions Opinion Guidance has recently been updated. Also, the Bermuda Solvency Capital Requirement (BSCR) is changing for 2019. A presentation of the updated guidance and BSCR changes will be provided. A representative from the Bermuda Monetary Authority will be present and to answer questions from the audience.

Moderator: Chandrakant Patel, Amtrust Financial

Speakers: William Miller, KPMG Bermuda
Donald Treanor, Assistant Director and Actuary, Bermuda Monetary Authority

FR-4: Company-Specific Risk Factors and Other RMAD Disclosures

Concurrent Sessions 6, Wednesday, September 18, 9:45 a.m. - 11:00 a.m., Indigo, 4th Floor

Company-specific risk factor disclosures in the Statement of Actuarial Opinion (SAO) may only take up a paragraph or two, but they have an important influence on multiple parties. Various stakeholders use them, including company management, members of the board and regulators. These disclosures guide regulatory analysis procedures and play a role in the company's enterprise risk management; they also may be reviewed by third-party consulting actuaries during regulatory financial exams. Panelists provide a variety of perspectives to engage the audience including a consulting actuary, an academic and a faculty member for the Opinion Seminar subcommittee. This session will also present some original research into the SAO and the company-specific risk factor and other RMAD disclosures. The audience will be asked to share their experiences (and challenges) in writing and reviewing the risk factor disclosures in the SAO.

Moderator/Speaker: Erich Brandt, Senior Consulting Actuary, Pinnacle Actuarial Resources, Inc.

Speakers: Gregory Fears, Consulting Actuary, Pinnacle Actuarial Resources, Inc.
Kevin Ahlgrim, Associate Professor, Illinois State University
Dawn Fowle, Senior Manager, EY

FR-5: Three Perspectives on Peer Review

Concurrent Sessions 4, Tuesday, September 17, 3:30 p.m. - 4:45 p.m., Congressional CC, 3rd Floor

Concurrent Sessions 7, Wednesday, September 18, 11:15 a.m. - 12:30 p.m., Primrose, 4th Floor

Peer review of the actuarial work of others is an important part of ensuring the integrity of a final work product. Quality peer review is a particularly essential tool in loss reserving. This panel will explore peer review with respect to insurers' unpaid liabilities from the actuarial perspectives of professional standards, and it will review the final calculations and selections for reasonability. Finally, an auditor who reviews financial statements will offer her comments on peer review process from a nonactuarial viewpoint. The panel will engage the audience with several examples and solicit their opinions with respect to prudent practice.

Moderator/Speaker: Erich Brandt, Senior Consulting Actuary, Pinnacle Actuarial Resources, Inc.

Speakers: Darcie Truttman, Consulting Actuary, Pinnacle Actuarial Resources, Inc.
Carolyn (Carrie) Rice, Partner, Johnson Lambert LLP
Kathleen Odomirok, Principal, EY

❑ 🎧 FR-6: IFRS 17 — Is Your Company on Its Way? 🎤

Concurrent Sessions 1, Tuesday, September 17, 10:00 a.m. - 11:15 a.m., Verbena, 4th Floor, 4th Floor

IFRS 17 reporting standards are expected to be operational in 2022, with comparative financial statements for 2021. Even though IFRS standards will not be required for U.S. financial reporting, many U.S. companies have foreign affiliates who will be required to report under IFRS 17. Furthermore, many executives in U.S. firms understand that competition for international capital will require them to be able to present their earnings and balance sheets on an IFRS-basis if they want to compete for international capital. Implementation efforts are well underway for most companies outside the U.S., while some U.S. firms are still determining the scope of the changes they will need to make.

This session will begin with the basic principles of IFRS 17 and what steps P&C insurance companies will need to take to comply with IFRS standards. The speakers will present some questions and challenges faced by companies as they begin the transformation. The issues presented in this session will be a good introduction for actuaries who are considering attending the IFRS 17 roundtable discussions.

Moderator/Speaker: Matthew Shockley, PricewaterhouseCoopers

Speaker: Nathalie Begin, Director, Willis Towers Watson

Line of Business

❑ 🎧 LOB-1: Health Care Technology and Medical Professional Liability 🎤

Concurrent Sessions 4, Tuesday, September 17, 3:30 p.m. - 4:45 p.m., Sage, 4th Floor

During this session panelists will discuss of the impact of new technology on health care from a provider and insurer perspective.

Moderator/Speaker: Gregory Chrin, Senior Manager, Deloitte Consulting, LLP

❑ 🎧 LOB-2: Investor-Funded Litigation 🎤

Concurrent Sessions 3, Tuesday, September 17, 1:45 p.m. - 3:00 p.m., Sage, 4th Floor

This presentation explores one of the newest and fastest growing investment opportunities: litigation funding. In addition to a behind-the-scenes view of this practice that includes its origins and current marketing goals, the panel will address the immediate effect on current and pending litigation. What control, if any, do the funders have in directing specific cases? Is there an ethical “grey area” between passive investment and the realities of settlement decision making? This session will review all of these areas as well as current and prospective legislation affecting litigation funding in the U.S. and abroad.

Moderator/Speaker: Jonathan Colman, Principal and Managing Attorney, Colman Law Group

LOB-3: Reserving Challenges for the Sharing Economy

Concurrent Sessions 2, Tuesday, September 17, 11:30 a.m. - 12:45 p.m., Congressional CC, 3rd Floor

Concurrent Sessions 7, Wednesday, September 18, 11:15 a.m. - 12:30 p.m., Iris, 4th Floor

Whether ride-, car- or home-sharing, the sharing economy has many similarities to traditional insurance markets, but there remain important distinctions. This presentation aims to explore some of the specifics of the sharing economy and their consideration when estimating reserves for these risks. Further, the presentation aims to invoke a dialogue to identify key differences. The presentation will begin discussions on the following key elements: (1) aggressive growth and capacity to handle claims properly, (2) emerging risk with little history and lack of fully relevant industry data, (3) the impact of growth on loss development factors and increased limit factors, (4) differences in the regulatory environment, and (5) exposure mix changes. This session's goal is to empower the audience to achieve an improved understanding of the pitfalls of traditional reserving and walk forward new ideas on how to better address these risks in reviews.

Moderator: Laura Maxwell, Senior Consulting Actuary, Pinnacle Actuarial Resources, Inc.

Speaker: François Morissette, Senior Principal, Oliver Wyman Actuarial Consulting

LOB-4: Medical Professional Liability: Current Challenges; Future Opportunity

Concurrent Sessions 6, Wednesday, September 18, 9:45 a.m. - 11:00 a.m., Wisteria, 4th Floor

For several years, the medical professional liability (MPL) market has faced the challenges of a soft market combined with high defense cost trends. Actuaries have seen inadequate rates in several market segments. Nonetheless, the market has been buoyed by strong capital levels, historically low frequency, favorable indemnity trends and continued reserve releases. There are signs of increasing claim severity and rates have recently started to increase in certain segments of the line of business. Opportunities are available for companies who can appropriately deploy capital and manage defense costs while maintaining low indemnity trends.

The panelists will explore the current state of the MPL market, underwriting challenges presented by various segments, approaches to assessing current market trends and strategies employed in defense cost management, as well as other opportunities and challenges. Discussion of defense cost management will include data-driven decision-making in the selection of defense counsel and settlement strategy. While the panelists have relied on current and historical data in their analyses, they will emphasize prospective opportunities in presentation. The panelists encourage audience participation.

Moderator/Speaker: Susan Forray, Principal and Consulting Actuary, Milliman, Inc.

Speakers: Howard Friedman, Senior Executive, ProAssurance Corporation
Jeffery Smith, Vice President and Chief Actuary, NORCAL Mutual Insurance Company
Tim Smith, Senior Vice President and Chief Claims Officer, NORCAL Group

❑ 🎧 LOB-5: Navigating Unknowns in Aviation Liability 🎤

Concurrent Sessions 1, Tuesday, September 17, 10:00 a.m. - 11:15 a.m., Poppy, 4th Floor

Aviation insurance is a unique line of business with many complicated issues. This session will discuss the current state of the market for aviation insurance. A plaintiff attorney will discuss the complicated legal framework between airline and product liability as well as insights on the Boeing 737 Max events and issues related to them. These unique characteristics will be discussed with relation to reserving for this line of business.

Moderator: Brian Brown, Consulting Actuary, Milliman, Inc.

Speakers: Carl Ashenbrenner, Principal and Consulting Actuary, Milliman, Inc.
John Gagliano, Gagliano Law Offices

❑ 🎧🎧 LOB-6: Cash Flow Case Reserving and Triangle Restatements 🎤

Concurrent Sessions 5, Wednesday, September 18, 8:00 a.m. - 9:15 a.m., Primrose, 4th Floor

This session will present a formulaic, cash-flow approach for setting individual case reserves for long-tail lines such as workers' compensation. This approach incorporates claim adjuster estimates of short-term costs along with key assumptions (e.g., medical inflation, discount rate, mortality tables) that impact those costs over time. Also introduced is a reserving method that creates more consistent triangles by restating individual case reserves from prior diagonals to reflect the key assumptions that underlie the current diagonal. This is similar to an extension of exposures technique but for claims in a loss triangle.

Moderator: Edmund Douglas, QBE North America

Speaker: Lynn Carroll, Vice President, Workers' Compensation Reinsurance Association

❑ 🎧 LOB-7: Assessing the Impact of Natural Catastrophes Using Cat Models 🎤

Concurrent Sessions 5, Wednesday, September 18, 8:00 a.m. - 9:15 a.m., Verbena, 4th Floor, 4th Floor

Refinements in catastrophe models have made it quicker and more efficient to use specific models to estimate the impact of events that are about to occur or have recently occurred. In this session, we will focus on the impact of storms like hurricanes and severe convective storms.

Moderator: Kevin Donnelly, Actuarial Consultant, United Healthcare

Speaker: Howard Kunst, Chief Actuary, CoreLogic

❑   **LOB-8: Herding Cats: Practical and Effective Methods for Estimating Catastrophes** 

Concurrent Sessions 3, Tuesday, September 17, 1:45 p.m. - 3:00 p.m., Verbena, 4th Floor, 4th Floor

Gather recommendations for enhancing catastrophe estimating methods and techniques in this session. A discussion on data will include assessing exposure both pre- and post-event, methods and techniques for estimating ultimate losses, and recognizing and reflecting difference among different types of catastrophes. This interactive session will poll participants on current methods used, discuss the greatest areas of challenge and encourage sharing other methods and techniques proven to be effective. Content in the handouts will include illustrations of exposure determination and the various loss estimating methods discussed.

Moderator/Speaker: Kenneth Kasner, Director and Actuary, The Hartford

❑  **LOB-9: Flood Modeling and Reserving Considerations** 

Concurrent Sessions 4, Tuesday, September 17, 3:30 p.m. - 4:45 p.m., Sunflower, 4th Floor

How do flood catastrophe models work and how are they different from other catastrophe models? Panelists will look at how probabilistic flood events are created for locations with and without sufficient historic records and how damage estimates can be determined. They'll also discuss how actuaries can use flood models post-event to estimate event damages.

Moderator: Ronald Kozlowski, Lead Consultant, RTK Actuarial & Professional Services

Speaker: Brandon Katz, Member, KatRisk LLC

❑   **LOB-10: Understanding the Public Sector: Rubric, Risks and Realities** 

Concurrent Sessions 6, Wednesday, September 18, 9:45 a.m. - 11:00 a.m., Poppy, 4th Floor

Session panelists will address some of the unique issues that actuaries find in the public sector. Panelists include consultants who specialize in this space along with guest speakers from the city of Austin's Department of Risk Management.

Moderator/Speaker: David Duden, Deloitte Consulting, LLP

Speaker: Mujtaba Dattoo, Aon

☐ ●● LOB-11: #MeToo and Sexual Abuse Implications on Employment Practices and General Liability

Concurrent Sessions 6, Wednesday, September 18, 9:45 a.m. - 11:00 a.m., Marigold, 4th Floor

Two panelists, one from a global insurer and the other from a major law firm, will discuss the #MeToo movement as it relates to sexual abuse coverage issues within employment practices liability and general liability policies. They will also discuss claims activity trends as a result of this movement.

Moderator: Jared Zola, Partner, Blank Rome LLP

Speaker: Joseph Kelly, Vice President, Sompo International

☐ ●●● LOB-12: Workers' Compensation Tail Reserving Using Mortality

Concurrent Sessions 1, Tuesday, September 17, 10:00 a.m. - 11:15 a.m., Lantana, 4th Floor

A recent paper by Shane and Fowle offers a practical approach to the challenging task of workers' compensation tail modeling: A parametric curve is fit to LDFs and the life expectancy of claimants is used to determine the duration of development, or, in other words, the truncation point for the extrapolated curve. Applying this method in practice revealed potential areas for refinement. First, an analysis of the curve fits led to an understanding, at a fundamental level, of the implications of using the popular inverse power and exponential curves. Additionally, a new curve form is introduced based on the findings of the analysis. Furthermore, theoretical and practical considerations gave rise to an approach for a gradual application of mortality to provide a more realistic tail. Finally, the paper developed a process for updating the proposed model for use by a practicing actuary.

Moderator/Speaker: Dawn Fowle, Senior Manager, EY

Speakers: Shon Yim, Senior Actuarial Assistant, Allstate Insurance Company
Dolph Zielinski, Vice President and U.S. Head of Actuarial Pricing, StarStone Insurance Company

☐ ● LOB-13: WCRI Research: Findings from Recent Reports

Concurrent Sessions 2, Tuesday, September 17, 11:30 a.m. - 12:45 p.m., Sunflower, 4th Floor

The Workers Compensation Research Institute (WCRI) will highlight its research on the relationship between opioid prescriptions and duration of temporary disability, changes in hospital reimbursement in selected states and recent interstate trends in opioid utilization.

Moderator: Sarah Krutov, Chief Reserving Actuary, QBE North America

Speaker: Ramona Tanabe, Executive Vice President and Counsel, Workers Compensation Research Institute

❑ 🎧 **LOB-14: Texas Nonsubscription: And the REAL Data Says...** 🎤

Concurrent Sessions 2, Tuesday, September 17, 11:30 a.m. - 12:45 p.m., Verbena, 4th Floor

In Texas 105,000 business are opting out of their state workers' compensation system in favor of administering their own occupational injury programs for their workforces. Why? What about the risks? Are the stories of significant savings and no insurance collateral requirements true?

The data doesn't lie. In addition to an overview of Texas nonsubscription, the results of an actuarially confirmed study of Texas nonsubscriber performance metrics will be discussed. Presenting are representatives from Baylor Scott & White Health, one of Texas largest and most notable employers, and from PartnerSource, the Texas Nonsubscriber industry's most significant consultant.

Moderator/Speaker: Russell Huber, Executive Vice President, PartnerSource

Speaker: Lisa Havens, Chief Risk Officer and Senior Vice President - Legal Counsel, Baylor Scott & White Health

Professional Development

❑ 🎧 **PD-1: Coffee Klatch for Opinion Writers** 🎤

Concurrent Sessions 6, Wednesday, September 18, 9:45 a.m. - 11:00 a.m., Iris, 4th Floor

So, you have a few questions about your upcoming or recent opinion. You probably won't find a better place to get your answers than this session. Or maybe you have resolved an interesting issue in your opinion. Come and share your knowledge and help your fellow practitioners avoid similar problems. Need help making a better presentation to your board or senior management? These panelists are sure to have helpful insight, along with your fellow attendees. The same can be said about interacting with regulators, auditors and even lawyers. Bring your questions and take advantage of the collective experience that will be in this session.

Moderator/Speaker: Arthur Randolph, Principal and Consulting Actuary, Pinnacle Actuarial Resources, Inc.

Speakers: Kathleen Odomirok, Principal, EY
Miriam Fisk, Property & Casualty Actuary, Team Leader, Texas Department of Insurance
Michael Toothman, President, Actuarial & Risk Consulting Services
James Leise, Vice President - Loss Reserving, United Services Automobile Association

❑  **PD-2: The ABCs of the ABCD** 

Concurrent Sessions 2, Tuesday, September 17, 11:30 a.m. - 12:45 p.m., Lantana, 4th Floor

Presentation will include functions and structure of the Actuarial Board of Counseling and Discipline with case studies.

Moderator: Richard Gibson, Senior Casualty Fellow, American Academy of Actuaries

Speaker: Deborah Rosenberg, Consulting Actuary, Risk & Regulatory Consulting, LLC.

❑  **PD-3: Professionalism Trivia!**

Concurrent Sessions 6, Wednesday, September 18, 9:45 a.m. - 11:00 a.m., Sage, 4th Floor

During this session by the Committee on Professionalism Education, participants will use their cell phones to participate in a real-time trivia game! This session will qualify for Continuing Education in the area of Professionalism, as many questions will relate to Actuarial Standards of Practice, the US Qualification Standards, and/or the Code of Conduct.

Moderator/Speaker: John Gleba, Secretary/Treasurer, Madison Consulting Group, Inc.

Speaker: Peter Royek, Senior Vice President and Actuary, Toa Reinsurance Company of America

❑  **PD-4: Lights! Camera! Professionalism!**

Concurrent Sessions 5, Wednesday, September 18, 8:00 a.m. - 9:15 a.m., Indigo, 4th Floor

Have you ever come across professional dilemmas that you wish you had seen in a skit before facing them? If not, now's your chance! Come and see some fine acting by fellow actuaries while they perform sketches and grapple with such issues. You will walk away from this session with a better understanding of ASOPs and the Codes of Conduct, and how to apply them when you face your own professional ethical dilemmas. This session may be counted as professionalism credit for continuing education.

Moderator/Speaker: Patrick Gilhool, Vice President and Chief Reserving Actuary, StarStone Insurance

Speakers: Stephen Merkey, Actuary, United Fire Group
Adam Swartz, Vice President - Actuarial Services, Securian Casualty Company

□ **PD-5: A-1 Actuarial Communications: Essential Elements and Graphic Stories**

Concurrent Sessions 1, Tuesday, September 17, 10:00 a.m. - 11:15 a.m., Sunflower, 4th Floor

Beginning with a basic discussion of the standard of practice and what should be included in an actuarial communication, this session will then move into a more in-depth discussion of how to present data graphically to best tell your story, including tips and common pitfalls.

Moderator: Susan Pino, Director, Deloitte Consulting, LLP

Speakers: Kevin Roll, Specialist Leader, Deloitte
Brian Mullen, Reinsurance Pricing and Analytics Director, AmFamRe

□ **PD-6: Reserving War Stories: Statement of Actuarial Opinion Edition**

Concurrent Sessions 3, Tuesday, September 17, 1:45 p.m. - 3:00 p.m., Congressional CC, 3rd Floor

Challenging reserve situations, potential outcomes, and actual outcomes as it relates to how to document in the SAO are the focus of this session. Come and learn from those who have prepared (consulting actuary) and reviewed (insurance regulator).

Moderator: Joshua Merck, Senior Manager, Deloitte Consulting, LLP

Speakers: Christina Gwilliam, Willis Towers Watson
Miriam Fisk, Property & Casualty Actuary, Team Leader, Texas Department of Insurance

□ **PD-7: Actuaries and the Law**

Concurrent Sessions 7, Wednesday, September 18, 11:15 a.m. - 12:30 p.m., Sage, 4th Floor

Sometimes you just have to face it: There may be legal hurdles you will struggle with in your reserving career. Come and listen as lawyers talk about actuaries (instead of the other way around) and where they have misstepped or side-stepped across fine lines that separate good actuaries from great actuaries.

Moderator: Eric Hornick, Chief Claims Officer and Actuary, The Black Car Fund

Speakers: James Dugan, Willkie Farr & Gallagher
Patrick Cantilo, Founder and Managing Partner, Cantilo & Bennett, L.L.P.

☐ 🎧 PD-8: NAIC Changes for the Appointed Actuary 🎤

Concurrent Sessions 4, Tuesday, September 17, 3:30 p.m. - 4:45 p.m., Verbena, 4th Floor, 4th Floor

The National Association of Insurance Commissioners recently updated the instructions for the definition of an Appointed Actuary in the P/C Actuarial Opinion Instructions. In addition, the NAIC has approved the CAS Syllabus as meeting the requirements for an Appointed Actuary starting in 2021. What are these changes? What are the new requirements for you as an Appointed Actuary? What if you received your designation years ago? Come and hear representative from the NAIC and the CAS discuss the recent changes and how these change impact the duties of the Appointed Actuary.

Moderator/Speaker: Kendall Williams, Staff Actuary, Casualty Actuarial Society

Speakers: Kris DeFrain, Director, Research and Actuarial, National Association of Insurance Commissioners
Chris Nyce, Principal, KPMG, LLP

Risk Management

☐ 🎧 🎧 RM-1: Primer on Bayesian MCMC 🎤

Concurrent Sessions 2, Tuesday, September 17, 11:30 a.m. - 12:45 p.m., Primrose, 4th Floor

Intended for actuaries who want background on the Bayesian Monte Carlo Markov chain (MCMC) methods, this session will introduce how to use the Bayes rule to consider expert opinion when estimating parameters and, specifically, the distribution of the parameters. Starting with a case that can be solved mathematically, panelists will then show a case that is not solvable and thus requires simulations using MCMC to estimate the distribution of the parameters and then those of the underlying variable. While there is software that implements the methods, it is useful to have an understanding of what is happening under the hood.

Moderator: Arthur Randolph, Principal and Consulting Actuary, Pinnacle Actuarial Resources, Inc.

Speaker: Alejandro Ortega, Organization of Latino Actuaries

❑ 🎧 **RM-2: The Collateral Battle — Lies, Damn Lies and Collateral Calculation** 🎤

Concurrent Sessions 6, Wednesday, September 18, 9:45 a.m. - 11:00 a.m., Verbena, 4th Floor, 4th Floor

Actuaries representing both insurer's and the policyholder's points of view, will discuss insurance carriers' collateral requirements for large deductible or other loss-sensitive, primary, casualty programs. Panelists will give background on collateral and why it is needed, as well as colorful commentary relating to collateral estimation and negotiation. The insurance company and consulting actuary will offer points and counterpoints relating to the key drivers of collateral and strategies and common fallacies used in negotiations.

Moderator/Speaker: Ron Fowler, Director, Oliver Wyman Actuarial Consulting

Speaker: Rose Barrett, Applied Underwriters

❑ 🎧 **RM-3: Ceded Reserving: It is Not as Simple as Subtraction** 🎤

Concurrent Sessions 1, Tuesday, September 17, 10:00 a.m. - 11:15 a.m., Indigo, 4th Floor

This session will be a discussion of the pros and cons of various approaches to estimating ceded loss reserves. Panelists will cover various data organization approaches as well as various actuarial techniques and what potential shortfalls may come from utilizing these methods. Finally, this session will help you tackle some of the more "difficult-to-quantify" loss sensitive features of reinsurance including aggregate deductibles.

Moderator/Speaker: David Foley, Group Chief Actuary, Enstar Group

Speakers: Joseph Milicia, Willis Towers Watson

Rachel Dolsky, KPMG, LLP

❑ 🎧 **RM-4: Creating a Great Loss-Model Without Losing a Wink of Sleep** 🎤

Concurrent Sessions 2, Tuesday, September 17, 11:30 a.m. - 12:45 p.m., Marigold, 4th Floor

Model specification risk is a major component of reserve risk, and it can be mitigated. Learn about the importance of model diagnostics. How to put together an effective toolkit of model diagnostics to apply before submitting your projections to management. How bootstrap simulation can be repurposed as a powerful diagnostic tool. Learn how to read the results of such a test like an X-ray. Your current methods are probably not telling you enough about calendar trends; They are silent forecast killers. You'll learn how to use graphical diagnostics to detect their presence even after loss development modeling. How do you discover the hidden assumptions behind your modeling practice? Achieving best practice demands that all forecasts of future distributions should be conditional on explicitly auditable and controllable assumptions. This session will show you how to achieve this. All concepts and methods are illustrated using real-life examples.

Moderator/Speaker: David Odell, Senior Statistician, Insureware Pty Ltd.

RM-5: Managing Captives with Capital Modeling

Concurrent Sessions 7, Wednesday, September 18, 11:15 a.m. - 12:30 p.m., Poppy, 4th Floor

Captives need to operate as the insurance companies that they are. All insurance companies need to strategically deploy capital to achieve their operating goals. A robust capital model is the starting point. We will provide an overview of the inputs and outputs of a capital model. In addition, we will present examples for how a capital model can influence strategic decisions such as (1) coverage layers, (2) lines of business, (3) reinsurance structure, (4) risk appetites and tolerances, (5) capital management, and (6) investment strategies.

Moderator/Speaker: Daniel Gibson, Oliver Wyman Actuarial Consulting

RM-6: Risk Transfer: Deposit Accounting vs. Insurance Accounting

Concurrent Sessions 3, Tuesday, September 17, 1:45 p.m. - 3:00 p.m., Primrose, 4th Floor

Actuaries are well-versed in the principles of risk transfer and the various approaches taken to measure risk transfer. However, not much attention has been paid to the mechanics of deposit accounting. This session is designed to highlight the differences between deposit accounting and insurance accounting as well as how deposit accounting is updated at each accounting date. The principles of risk transfer, the cash flow testing supporting the risk transfer analysis and expected reinsurer deficit will also be discussed.

Moderator: Ian Sterling, Senior Actuarial Advisor, EY

Speakers: William Miller, KPMG Bermuda
David Brown, Senior Partner, EY

RM-7: Challenges in Estimating Self-Insured Liabilities

Concurrent Sessions 5, Wednesday, September 18, 8:00 a.m. - 9:15 a.m., Marigold, 4th Floor

Actuaries encounter a number of issues when developing estimates for corporate self-insureds. The self-insured may change retention, change their third-party administrator (TPA) or establish their own case-basis claim reserves using practices that differ from insurance industry standards. As a result, estimates using benchmark loss development factors or factors based on historical loss development limited to the self-insured retained limits may not be very accurate. This panel will demonstrate the potential errors in the estimate using erroneous assumptions and offer tips on how to make adjustments to your estimates to account for changes in the self-insured program. A claims specialist will discuss TPA claims management practices for establishing case reserves and how working with the actuary to evaluate the claims data will ensure the validation of the case reserve adequacy.

Moderator/Speaker: Matthew Shockley, PricewaterhouseCoopers

Speaker: Lynne Bloom, EY

❑ 🎧 **RM-8: Insurance Business Transfer Legislation in Oklahoma** 🎧

Concurrent Sessions 4, Tuesday, September 17, 3:30 p.m. - 4:45 p.m., Primrose, 4th Floor

Oklahoma recently passed an insurance bill that provides a basis and procedures for the transfer and statutory novation of policies from a transferring insurer to an assuming insurer through an insurance business transfer without the affirmative consent of policyholders or reinsured. This panel will discuss the process and procedures required under the law to transfer the direct and assumed policies to another insurer. The Oklahoma law is modeled after the U.K.'s Part VII of the Financial Services and Markets Act 2000. In the U.K., the role of the independent expert mainly falls to the actuarial profession. The panel will discuss the requirements of the independent expert report as well as the process and procedures required under the law to transfer the direct and assumed policies to another insurer.

Moderator: David Foley, Group Chief Actuary, Enstar Group

Speakers: James Mills, Vice President, Legal Counsel, Enstar Group

Simon Wong, Consulting Actuary, Milliman, Inc.

Andy Schallhorn, Deputy Commissioner of Financial Regulation and Chief Actuary, Oklahoma Insurance Department

Special Topics

❑ 🎧 **ST-1: The Change in Mobility Landscape: How Cities, Technology, Companies and Regulators will Adapt to Improve Safety on our Streets and Roads** 🎧

Concurrent Sessions 6, Wednesday, September 18, 9:45 a.m. - 11:00 a.m., Primrose, 4th Floor

The pace of change in the new and emerging modes of transportation is quite astounding given the increasing convenience of ride-sharing companies (including cars, bicycles and e-scooters), the change in pace of the technological advancements and the ongoing testing and piloting of autonomous vehicles (AV). A new (and smart) mobility ecosystem is emerging with the promise to deliver seamless, intermodal transportation faster, cheaper, safer and cleaner than today.

Our speakers will talk about the changing public perception and reaction to the changing mobility ecosystem. Johanna Zmud will discuss what the public really thinks about automated vehicles based on evidence and key findings collected from various research and surveys that will draw a picture on consumer demand for this emerging mode of transportation.

Jason JonMichael will discuss how Austin and other cities are currently handling new mobility technologies (i.e., e-scooters, ridesharing) and what they need to do to prepare for future changes in the mobility landscape (i.e., connected and automated vehicles). JonMichael will also touch on how insurance plays into this ecosystem as well.

Moderator: Jason JonMichael, Assistant Director-Smart Mobility, City of Austin

Speaker: Johanna Zmud, Senior Research Associate-Multimodal Planning Division Head, Texas A&M Transportation Institute

📌 🎧 ST-2: Asbestos and Environmental Update: What Have We Learned? 🎤

Concurrent Sessions 3, Tuesday, September 17, 1:45 p.m. - 3:00 p.m., Lantana, 4th Floor

Every year A.M. Best updates its estimate of the insurance industry's ultimate losses from asbestos and environmental exposures. As of year-end 2016, the asbestos estimate was raised to \$100 billion, and this means that the insurance industry reserves were still more than 25% inadequate at the end of 2017. When will asbestos claim filings begin to show a decline? What is causing the industry to continue to be surprised by what appear to be unending exposures? How will the recent talc-related asbestos verdicts affect the Industry?

In 2018 A.M. Best increased their estimate of environmental ultimate losses by \$4 billion, from \$42 billion to \$46 billion. Why do the environmental liabilities continue to chug along at such a rapid pace? How will the current administration's EPA regulatory changes impact the future of environmental exposures?

This panel will provide an update on these never-ending exposures that continue to plague the insurance industry and how companies are addressing these issues.

Moderator: Michael Henk, Consulting Actuary, Milliman, Inc.

Speakers: Rachel Dolsky, KPMG, LLP
Sandra Santomenno, Senior Director, Willis Towers Watson
Rita Zona, Enstar

📌 🎧 ST-3: NextWave Actuarial: Achieving Actuarial Excellence 🎤 🎥

Concurrent Sessions 1, Tuesday, September 17, 10:00 a.m. - 11:15 a.m., Congressional CC, 3rd Floor

Because of all the disruption and innovation in the insurance industry, the actuarial group is being asked to do more — all while needing to overcome a common set of underlying internal challenges. This interactive panel discussion brings together actuaries and industry experts to explore the vision of achieving actuarial excellence through the lenses of people, process, data and technology. As part of the discussion on technology, we will look at a real-world example of how machine learning can transform and drive actuarial excellence in the reserving process. This session anticipates a high degree of audience participation.

Moderator: William Miller, KPMG Bermuda

Speakers: Ian Sterling, Senior Actuarial Advisor, EY
Len Llaguno, Founder and Managing Partner, KYROS Insights
Angela Burgess, Senior Vice President and Chief Actuary, Assurant

□ **ST-4: Opioid Issues Affecting Risk Decisions**

Concurrent Sessions 5, Wednesday, September 18, 8:00 a.m. - 9:15 a.m., Sage, 4th Floor

Led by two seasoned attorneys who are considered leading legal experts on prescription drug diversion issues, signs, effects and strategies, this presentation will describe relevant opioid investigations/lawsuits and federal opioid legislation and their potential impact on risk decisions. The panel will also describe the current status of state “caps” on damages and the risk posed by opioid litigation.

Moderator: Rachel Dolsky, KPMG, LLP

Speakers: Alix Michel, Michel & Ward, PC
David Ward, Michel and Ward, PC

□ **ST-5: Process Mining & Process Simulation**

Concurrent Sessions 1, Tuesday, September 17, 10:00 a.m. - 11:15 a.m., Marigold, 4th Floor

Insurers are continuously expanding their data analytics toolkits. One new technique is process mining, which evolved to better measure industrial processes. Today, leading insurers are using this technique to improve measurement of and provide transparency into difficult-to-quantify human costs, such as underwriting overhead, ULAE/ALAE and service costs. This session provides an overview of the technique and applications.

Moderator/Speaker: John Wade, Consultant, R&A Risk Professionals

Speakers: Anthony Beirne, KPMG, LLP
Nathaniel Loughin, Manager, KPMG, LLP

□ **ST-6: Actuarial Reserving Practices and Investment Priorities**

Concurrent Sessions 3, Tuesday, September 17, 1:45 p.m. - 3:00 p.m., Poppy, 4th Floor

An update to a 2014 CLRS general session, this session will begin with assessing of the current reserving environment, as evidenced in the panelists’ survey and real-time results from the live-pulse survey. A discussion with intermixed live-pulse questions will follow highlighting current trends and future expectations for reserving — specifically, where companies are looking to improve processes in the future and where they are investing heavily.

Moderator/Speaker: Joseph Milicia, Willis Towers Watson

Speaker: Arthur Zaremba, Chief Actuary, Glencar Insurance Company

□ **ST-7: Political Risk and Emerging Markets and its Implications on Insurance Ratings**

Concurrent Sessions 1, Tuesday, September 17, 10:00 a.m. - 11:15 a.m., Sage, 4th Floor

During this session, we will discuss how economic, political and financial system risk across emerging markets have implications on insurance ratings

Moderator: Ann Modica, Associate Director - Senior Economist, A.M. Best

Speaker: Brad Herman, Associate Director, Quantitative Analysis, A.M. Best

□ **ST-8: An FBI View of Cybercrime and Cyber Security Threats**

Concurrent Sessions 3, Tuesday, September 17, 1:45 p.m. - 3:00 p.m., Iris, 4th Floor

The 21st century brings new challenges in which criminal security threats strike from near and afar through computer networks, with potentially devastating consequences and large financial impacts to commercial entities.

A special agent from the FBI's computer intrusion section will discuss the emerging threats in cybercrime, both domestically and internationally. The FBI will present the most common cyber security threats and the methodology behind them. Ways to protect computer networks will be explained.

In addition, we will discuss the latest trends as insurance companies build and price cyber insurance products to protect commercial entities and their valuable computer and customer information.

Moderator/Speaker: Aaron Hillebrandt, Director and Consulting Actuary, Pinnacle Actuarial Resources, Inc.

Speaker: Duncan Edwards, Special Agent, FBI

□ **ST-9: Recent Weather Extremes: Historical Outliers or the Norm of the Future?**

Concurrent Sessions 2, Tuesday, September 17, 11:30 a.m. - 12:45 p.m., Sage, 4th Floor

This presentation will cover four topics. The first will be an overview of some of the recent weather disasters as they have impacted the U.S. and other parts of the world. The overview will cite examples from the record 2017 Atlantic Hurricane Season, the California Wildfires of 2017 and 2018, the extreme winter weather (cold and snowstorms) of 2018 and 2019 across the U.S., and from the extreme weather that has been occurring in Asia, Africa, Europe and the South Pacific. The second part will summarize how and why we expect weather extremes to change in the future under continued climate change. The third part of the presentation will provide a brief explanation of a relatively new branch of climate change science known as extreme event attribution and the levels of confidence we have for different weather phenomena and why. The last section will put some of the extreme weather discussed in the first part into perspective with some commentary on whether they are simply expected outliers or whether collectively they are defining a new normal that is being influenced by climate change.

Moderator/Speaker: Peter Sousounis, AIR Worldwide

📌 🎧 **ST-10: The Exponential Insurance Professional & the Industrial Revolution 4.0** 🎤

Concurrent Sessions 2, Tuesday, September 17, 11:30 a.m. - 12:45 p.m., Iris, 4th Floor

The world is changing at an increasing pace and is disrupting everything from how one orders goods and services to how to take a taxi or Uber. Increasingly, this disruption is affecting the work of actuaries. Moreover, actuaries are being asked to provide more value-added services. Not only is this requiring actuaries to leverage exponential technologies not traditionally used in the insurance industry, but it is also impacting the types of staffing and training models utilized by actuaries. With a broader trend to alternative workforce arrangements, such as the gig economy and crowdsourcing, how will actuaries transition to this new future of working? What are the different types of off-balance-sheet workers? How can companies create a strategy to deal with the hybrid workforce that involves different types of workers, cross-country borders and other changes?

Another potential impact to actuaries and the insurance industry is the fourth industrial revolution, which is evolving at an exponential pace, connecting the digital and physical worlds. Survival during this time is a challenge for all organizations as they compete in an environment where taking advantage of technology is critical. The discussion will focus on perspectives on thriving in this environment, ranging from what we learned from previous revolutions to leveraging new capabilities such as internet of things digital twins, and machine learning.

Join this session to learn how actuaries, actuarial functions and the insurance industry can successfully prepare themselves for this change and create an advantage for the insurance industry during this time of transformation.

Moderator: Vera Sakalova, Manager P&C Actuarial, Hanover Insurance Group

Speakers: Matthew Carrier, Principal, Deloitte Consulting, LLP
Nathan Pohle, Deloitte Consulting, LLP

❑ 🎧 ST-11: The Board's Role in Monitoring the Loss Reserve Process 🎤

Concurrent Sessions 4, Tuesday, September 17, 3:30 p.m. - 4:45 p.m., Iris, 4th Floor

This is planned as a very interactive session. Participants will be asked to weigh in on the role of the board, what boards need to know when evaluating the environment within which reserves are established, and the questions that board members might ask and procedures they might follow in executing their fiduciary responsibilities.

Results of the discussion are likely to be reflected in a paper being written by Brian Brown, Pat Teufel, Steve Wilson (former group chief actuary at Zurich) and Michael Price (a CAS Fellow, former CEO of Platinum Reinsurance and chair of the audit committee for Hanover).

The paper will consider whether the changes that have occurred since the 2003 S&P article, "Insurance Actuaries: A Crisis of Credibility," have been sufficient for the public to trust that reserve surprises are less likely to occur or will be significantly reduced in magnitude. Consideration will be given to changes in all aspects of the reserve process, including whether actuarial methods have improved sufficiently to identify changes in market condition and take them into account in the reserving process; whether internal controls have evolved such that company managements must document and explain material deviations from the actuarial estimates; and whether boards in their oversight role have become sufficiently aware of pitfalls to ask appropriate questions and demand appropriate disclosures.

Moderator/Speaker: Brian Brown, Consulting Actuary, Milliman, Inc.

Speaker: Patricia Teufel, Adjunct Instructor, University of Connecticut

❑ 🎧 ST-12: The Six Million Dollar Man: The Impact on Very Large Claims on Unpaid Claim Liability Estimates 🎤

Concurrent Sessions 5, Wednesday, September 18, 8:00 a.m. - 9:15 a.m., Iris, 4th Floor

In Statement of Actuarial Opinion work and other situations, actuaries must estimate unpaid claim liabilities on an unlimited basis. Oftentimes, actuaries will remove very large claims from the analysis and separately estimate unpaid liabilities for the jumbo versus all other claims.

Moderator/Speaker: Michael Paczolt, Consulting Actuary, Milliman, Inc.

Speakers: Adam Blais, Claims Management Consultant, Milliman, Inc.

Ann Perkins, COO, R & Q Health

  **ST-13: An Introduction to the Actuaries Climate Index® and the Actuaries Climate Risk Index®** 

Concurrent Sessions 1, Tuesday, September 17, 10:00 a.m. - 11:15 a.m., Primrose, 4th Floor

Dr. Margaret Conroy will explain the Actuaries Climate Index® (ACI) and the Actuaries Climate Risk Index® (ACRI), both created and sponsored by the CAS, Canadian Institute of Actuaries, The American Academy of Actuaries and the Society of Actuaries. The ACI is an educational tool designed to help inform actuaries, public policymakers and the general public about climate trends and some of the potential impacts of a changing climate on the United States and Canada. The index is an objective measure of observed changes in extreme weather and sea levels. It is intended to provide a useful monitoring tool of climate trends and is updated quarterly as data for each meteorological season becomes available. The ACRI relates the climate extremes to economic and human losses.

Moderator/Speaker: Margaret Conroy, Principal, Analytic Solutions, LLC

   **ST-14: Reserves Call Paper Program** 

Concurrent Sessions 7, Wednesday, September 18, 11:15 a.m. - 12:30 p.m., Sunflower, 4th Floor

Call Paper One — “Relative Unpaid Claims Loss Reserving”

This paper derives an elementary loss reserving model using, as the accounting date, only the following elements: (1) accident year incremental losses that were paid during the same calendar year; (2) relativities of successive accident year unpaid losses; and (3) unpaid losses for the oldest included accident year. Methods to apply the model are presented along with considerations and techniques to improve accuracy. Several methods derived from the model are applied to the CAS loss reserve database historical experience and the resulting unpaid claim estimates are compared to indications using traditional loss reserving methods. Performance accuracy of competing methods is evaluated using a retrospective hindsight test of subsequent emergence. Advantages of the relative unpaid claims model include that it requires less data and fewer assumptions than traditional chain ladder methods and results in unpaid claim estimates that empirically appear at least as accurate as estimates derived from comparable generally accepted actuarial reserving methods.

Moderator: Chandrakant Patel, Amtrust Financial

Speaker: Bertram Horowitz, President, Bertram Horowitz Inc. Actuarial & Risk Consultants

CE Credit Attendance Form
2019 Casualty Loss Reserve Seminar

Organization seeking to receive CE Credits from: ____CPCU

Please indicate below which sessions that you attended at the CLRS and ensure that you sign your name for each session completed. Please return this form to the registration desk.

Signature (Print and Sign)

Company:

Session Title:

Date:

Room:

Length: ____ Minutes

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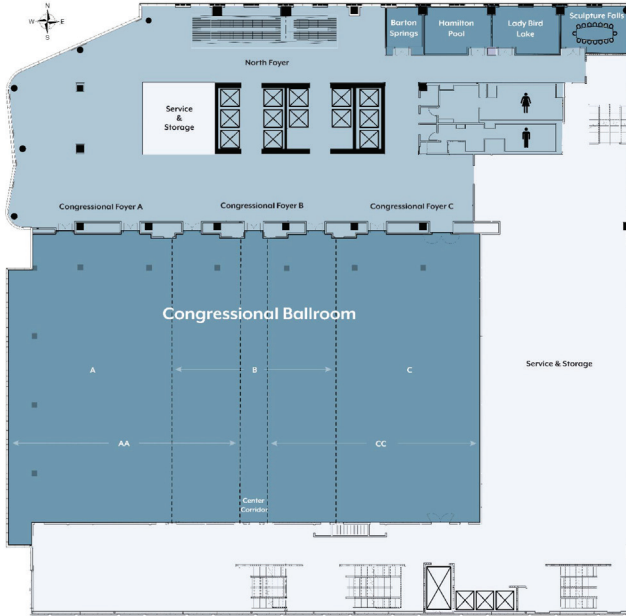
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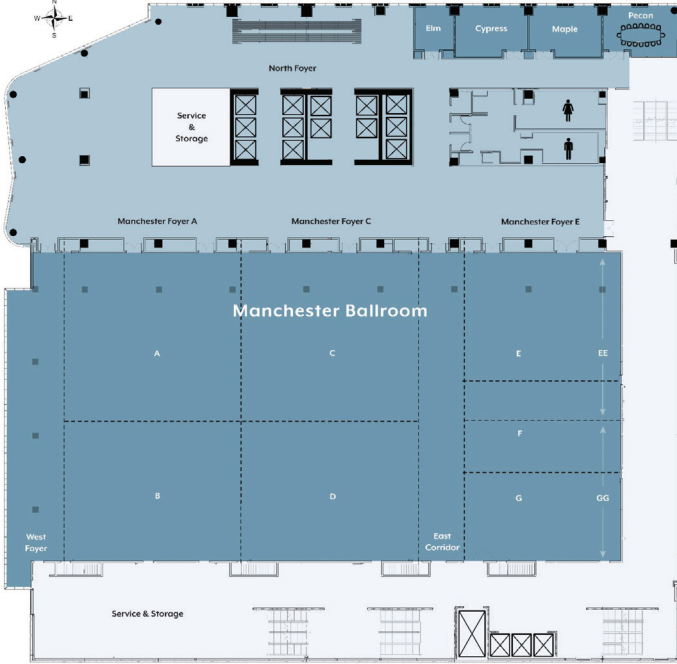
3rd Floor



4th Floor



5th Floor



7th Floor

