

**2020 CAS Spring Meeting
Virtual Program
May 11-13, 2020**

MONDAY, MAY 11

The Unintended Consequences of Data

Welcome & Featured Speaker, Monday, May 11, 2020 10:00 a.m. - 11:15 a.m.

Dr. Charles Wheelan, author of Naked Statistics, will be the Featured Speaker at the 2020 Spring Meeting. He will address the unintended consequences of data being used in inappropriate ways. Dr. Wheelan said when informed of his selection as Featured Speaker, "I look forward to speaking at the CAS Spring Meeting on the topic of the unintended consequences of data because data is the new dynamite: fabulously powerful but also capable of inflicting enormous damage if used improperly."

Speakers:

Charles Wheelan, Dartmouth College

CAS President Armstrong and CEO Carter-Bey speak

General Session - CEO/President Chat, Monday, May 11, 2020, 12:15 p.m. - 12:45 p.m.

Steve Armstrong and Victor Carter-Bey hold a "fireside" chat.

Speakers:

Steven Armstrong, Allstate Insurance Company

Victor Carter-Bey, Chief Executive Officer, Casualty Actuarial Society

Risk Management in Light of the Coronavirus Pandemic

General Session 1, Monday, May 11, 2020 Time 1:00 p.m. - 2:15 p.m.

Level of Knowledge: Level 1: No prior knowledge of the subject (0-3 years)

The outbreak of COVID19 is developing into a major asset and liability event for the P&C insurance industry. The first part of this session will go over relevant insurance coverage, potential losses and emerging legislative initiatives arising from this historical event. The second part will cover the financial impact of the ongoing pandemic to (re)insurers, the lessons we are learning, and how our industry could help the society to get through this difficult time.

Speakers:

Zoheb Noorani, O'Melveny & Myers LLP

Tancred Schiavoni, Partner, O'Melveny & Myers LLP

Sherman Power, US ReSolutions Leader, Aon

Dustin Loeffler, Director, Aon

Actuarial Case Reserves

Concurrent Session 1, Monday, May 11, 3:00 p.m. - 4:15 p.m.

Level of Knowledge: Level 2: General knowledge of the subject (4-9 years)

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, that we have constructed directly, using objective claim and exposure information. During this session we will discuss how the separation of the dual roles of case reserves will benefit not only the actuaries in their reserving and pricing work, but also the claim settlement function.

Speakers:

Christopher Gross, CEO, Gross Consulting

Actuarial Modernization Trends: How Modern is Your Actuarial Function?

Concurrent Session 1, Monday, May 11, 3:00 p.m. - 4:15 p.m.

Level of Knowledge: Level 1: No prior knowledge of the subject (0-3 years)

Robotic process automation, AI, machine learning, advanced analytics, data infrastructure, visualization – all the latest buzz in actuarial modernization. How far along is the P&C industry on key actuarial modernization initiatives? In this session, we will highlight these key initiatives, presenting findings from PwC's 2019 global actuarial modernization survey, and deep dive into two areas of focus that are gaining traction in the actuarial space - data visualization and robotics process automation. We will demonstrate a dynamic visualization and an automated reserve analysis before discussing the practical considerations in implementing these tools within your own processes. By the end of the session, you will be able to evaluate where your company stands compared to the industry on various actuarial modernization initiatives. Furthermore, you will be able to assess which of your actuarial processes may be ripe for dynamic visualization or automation and how to get started on the pr

Speakers:

Elizabeth Casazza McGrew, Senior Manager, PwC

Sumaali Chheda, Actuarial Senior Associate, PricewaterhouseCoopers

Kimberly LaRiccia, IT Director, Data Management and Analytics, Progressive Corporation

Zachary Martin, Vice President - Actuarial, Risk and Compliance Services, Frankenmuth Insurance

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Telematics - What Works and What Does Not?

Concurrent Session 1, Monday, May 11, 3:00 p.m. - 4:15 p.m.

Level of Knowledge:

In this session we will start with early usages of telematics to test advanced driver assistant system (ADAS) and driver behavior studies funded by National Highway Traffic Safety Administration (NHTSA). We will cover how telematics data were collected, data domains and challenges to process the data etc. With rapid development of new technologies and autonomous vehicles, telematics data are becoming more and more popular to provide insights on fleet management and driving safety. It is an unavoidable trend for insurance industry to turn the flood of raw data cascading from the fleet's vehicles into meaningful and profitable actions.

Speakers:

Wei (Alex) Chen, Pricing Actuary, AXIS Capital

Huimin Xiong, Commercial Auto Product Manager, AIG

TUESDAY, MAY 12

Enterprise Risk Management – Steering Your Board : A Case Study

Concurrent Session 1, Monday, May 11, 3:00 p.m. - 4:15 p.m.

Level of Knowledge:

This session will be represented as a case study and role playing where the Enterprise Risk Professionals will be communicating his/her quarterly ERM report to the Board. What style of presentation is recommended to gain optimum buy-in, understanding, and support from you Board?

Risk Appetite statements are often vague and qualitative, making it challenging to make the connection to day-to-day decision making. In this session, we discuss leading practices for defining risk appetite clearly and quantitatively, providing a direct and actionable line-of-sight to decision making.

Join us in an interactive session where panelists will be involved in role-playing in the interest of generating interactive discussions with the audience.

Speakers:

David Ingram, EVP, Willis Towers Watson

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

Climate Change and Catastrophic Trends

General Session 2/3, Tuesday, May 12, 2020 10:00 a.m. - 11:30 a.m

Level of Knowledge: Level 1: No prior knowledge of the subject (0-3 years)

Many scientists assert that global climate change is occurring, but questions remain as to whether there is evidence in P&C insurance loss trends. Estimating the impact of climate change on P&C losses exclusive of inflation and exposure changes remains to be a difficult task.

The first speaker will open with an insightful discussion on some of the most recent global catastrophes and how such events compare to what is often considered the historical norm.

The second speaker will introduce the newly released Actuarial Climate Risk Index which is being developed to help actuaries to answer the question: Are the extreme weather conditions that result from a changing climate producing increased property losses?

The third speaker will go over the IFoA's Guide to Climate Change for General Insurance Practitioners and suggest what actuaries should start focusing on today.

Speakers:

Richard Gibson, ActuarialWorx, LLC

Daniel Hartung, Director & Meteorologist, Aon

James Orr, Bank of England

Insuring Low-Income People against Catastrophes in Developing Countries

General Session 2/3, Tuesday, May 12, 2020 10:00 a.m. - 11:30 a.m

Level of Knowledge:

Low-income people are the most vulnerable to the effects of natural catastrophic events. With global climate change upon us, this problem will only be exacerbated. This session will provide some cutting-edge knowledge on efforts that are being implemented right now to help low-income people manage these risks more effectively. Among the topics the speakers will discuss are:

- Direct and indirect insurance for the benefit of low-income populations
- The role of subsidies

- “Forecast-financing” products that pay before the impact occurs
- Examples from Peru, Mongolia, the Philippines, Republic of Georgia, Ethiopia and others
- Insurance as a component of risk management

This will be followed by discussion of actual insurance products that have been implemented among low-income markets.

Speakers:

Michael McCord, Principal & Managing Director, MicroInsurance Centre at Milliman
 Jerome Skees, Chief Strategy Office and Director, Global Parametrics
 Minnie Green, Associate Actuary, Milliman, Inc.

Reserving with Machine Learning: Innovations from Loyalty Programs to Insurance

Concurrent Session 2, Tuesday, May 12, 12:30 p.m. - 1:45 p.m.

Level of Knowledge: Level 1: No prior knowledge of the subject (0-3 years)

How is machine learning used for loyalty programs and what can it teach us about insurance claim reserving?

While triangular methods have been a foundational tool for decades, individual claim reserving gives the actuary far more information about changes and trends in the liability. Yet the commonly used individual claim reserving techniques leave some of the most valuable data unexamined.

In this session, we’ll cover the benefits of reserving at the individual claim level and describe an approach that sits at the intersection of data science and actuarial science. This session will also introduce a new actuarial tool – the snapshot date triangle – and demonstrate how it can be combined with machine learning to produce a robust and powerful individual claim reserving system. You will learn why the snapshot date triangle was originally developed for estimating loyalty program liabilities and how it can be used in insurance contexts.

Speakers:

Julie Hagerstrand, KYROS Insights
 Len Llaguno, Founder and Managing Partner, KYROS Insights
 Dylan Reed, Actuarial Assistant, Allstate Insurance Company

Lesbian, Gay, Bisexual, Transgender, and Queer Identities & Allyship in Actuarial Workplaces

Concurrent Session 2, Tuesday, May 12, 12:30 p.m. - 1:45 p.m.

Level of Knowledge: Level 1: No prior knowledge of the subject (0-3 years)

Being an LGBTQ+ professional isn’t always easy. In this gathering of LGBTQ+ folks and Allies, let’s unpack that. As an industry, we’ve made huge strides (especially in the past few years), but there is still much more progress to be made. In this session, we will discuss challenges and triumphs of the LGBTQ+

community in actuarial workplaces. You will hear from actuaries actively involved in Diversity & Inclusion initiatives in the insurance industry and beyond. Come ready to participate!

Speakers:

Jake Akstins, Actuarial Consultant, CNA Insurance Companies

Matthew Gentile, Actuarial Senior Consultant, CNA Insurance Companies

ERM and Climate Change Risk

Concurrent Session 2, Tuesday, May 12, 12:30 p.m. - 1:45 p.m.

Level of Knowledge:

This session will include a discussion of how US insurance companies are looking at global warming and discuss the implementability of items discussed in the IFoA's Practical Guide to Climate Change for General Insurance Practitioners. The speakers will represent views from a personal lines insurer and a commercial lines insurer. Our third speaker will talk about how actuaries can add value to the climate risk process.

Speakers:

Barry Franklin, Executive Vice President and Chief Actuary, Zurich North America

Parr Schoolman, CRO of Allstate Personal Lines, Allstate Insurance Company

Rade Musulin, Principal, Finity Consulting Pty Ltd

Risk Agility: Linking Enterprise Risk Management to Strategy

Concurrent Session 2, Tuesday, May 12, 12:30 p.m. - 1:45 p.m.

Level of Knowledge:

Because we usually operate in a competitive environment, even the simplest of plans can be wrecked by unexpected reactions of our competitors. Risk Agility is needed to provide a clear path to linking risk management with a successful approach to strategy.

This session will introduce the three main components of Risk Agility:

- risk intelligence
- bias towards action
- flexibility.

Risk Intelligence is the intersection of experience, education, and analysis. This session will include a lively discussion of the relative importance of those three elements to an ERM program. We will concentrate on examples of Risk Intelligence in action, showing how it reduces the impact of the biases described in behavioral economics. Topics covered will include discussion of how risk intelligence helps a risk manager with:

- Identifying the difference between danger and fear

- How the 80/20 Rule applies to risk management
- Learning from losses: yours and others
- Shape of the loss distribution

Speakers:

Leo Tilman, President & CEO, Tilman & Company

David Ingram, EVP, Willis Towers Watson

Data Science and Improving Claims Customer Experience

Concurrent Session 3, Tuesday, May 12, 2:30 p.m. - 3:45 p.m

Level of Knowledge: Level 1: No prior knowledge of the subject (0-3 years)

A vast array of new technologies along with more advanced data fusion methods now allows refined claims segmentation that optimizes customer journey maps across an expanding set of claims experiences.

Speakers:

Marty Ellingsworth, Senior Analyst, Celent

Luke Harris, AVP, Innovation, USAA

Eric Sanders, Head of Claims, QBE North America

Tom Warden, Senior VP - Chief Data and Analytics Officer, Employers Insurance Services

Actuarial Trivia Challenge

Concurrent Session 3, Tuesday, May 12, 2:30 p.m. - 3:45 p.m

Level of Knowledge: Level 2: General knowledge of the subject (4-9 years)

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.

Speakers:

Kendall Williams, Staff Actuary, Casualty Actuarial Society

Elizabeth Bart, Consulting Actuary, Milliman, Inc.

Peter Royek, Senior Vice President & Actuary, Toa Reinsurance Company of America

Managing Legacy Risks in 2020

Concurrent Session 3, Tuesday, May 12, 2:30 p.m. - 3:45 p.m

Level of Knowledge:

The legacy markets are very active as we move into this new decade, with latent risks that continue to give rise to claim activity (e.g., asbestos, talc, sexual misconduct, hazing, opioid usage, PTSD, CTE, etc.). This session will provide important background on this growing market, including the major players and the types of solutions available to companies to manage their legacy risk. This will include an update on the unique benefits of the Insurance Business Transfer (IBT) legislation in Oklahoma, which has received significant interest and is viewed as the first-mover in this space. How will this success aid in future IBT transfers? What's the progress of similar legislation in other states?

Speakers:

Travis Grulkowski, Consulting Actuary, Milliman, Inc.

Marc-Andre Lefebvre, Senior Vice President & Financial Risk Officer, Arrowpoint Capital

Carolyn Fahey, Executive Director, AIRROC

Sandra Santomenno, Senior Director, Willis Towers Watson

Flood Insurance in the Private Sector

Concurrent Session 3, Tuesday, May 12, 2:30 p.m. - 3:45 p.m

Level of Knowledge: Level 1: No prior knowledge of the subject (0-3 years)

As of 7/1/2019 banking regulations were updated to allow lenders' acceptance of a private flood insurance policy to satisfy the mandatory purchase of flood insurance. The privatization of flood insurance may provide a real growth opportunity for the right company. In fact, insurers have already been increasing their presence in the flood insurance industry. There are several considerations for those assessing the opportunity to underwrite flood insurance. One of the main resources to price the coverage will be the utilization of a flood model. In addition to an overview of the current landscape of the privatization of flood insurance, this session will delve into the best practices of evaluating a flood model.

Speakers:

Greg Frankowiak, Senior Consulting Actuary, Pinnacle Actuarial Resources, Inc.

Megan Hart

WEDNESDAY, MAY 13

The Road Ahead: Autonomous Trucking and Its Impact on Insurance

Concurrent Session 4, Wednesday, May 13, 10:00 a.m. - 11:15 a.m

Level of Knowledge: Level 1: No prior knowledge of the subject (0-3 years)

Autonomous semi-trucks are successfully navigating cross-country routes, and a handful of companies are already using them to deliver goods. Several businesses are considering autonomous trucking as a solution to supplement growing driver shortages and to create more efficient distribution networks. The insurance industry has started to adapt to autonomous vehicles for personal use, but the industry does not have a cohesive approach to address the impact on commercial lines. This revolutionary technology is gaining momentum and will reshape traditional lines of business including auto, workers' compensation, general liability, and inland marine. It will also bring new liabilities to light that are not

typically considered in today's insurance policies. Actuaries need to gain an understanding of this evolving technology in order to begin quantifying the impact autonomous trucks will have on company stakeholders and to create effective strategies to price and underwrite the risk in the n

Speakers:

Drew Groth, Associate Actuary, Milliman, Inc.

Professionalism and the Enterprise Risk Management Practitioner

Concurrent Session 4, Wednesday, May 13, 10:00 a.m. - 11:15 a.m

Level of Knowledge:

Actuaries working in Enterprise Risk Management have a variety of standards to help guide them. This interactive session will explore all of the tools with a special focus on ASOP 46,47, 55 and new ASOP 56. The session will include background, case studies, and trivia to test and apply your knowledge of these important ASOP's.

Speakers:

Michael Speedling, Director, Internal Audit, AXIS Capital

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

Kendall Williams, Staff Actuary, Casualty Actuarial Society

A Visual Walk Through Reserving

Concurrent Session 4, Wednesday, May 13, 10:00 a.m. - 11:15 a.m

Level of Knowledge:

This presentation will introduce fundamental principles of effective visualization and provide examples of visuals to enhance a reserving analysis. We will explore the benefits and pitfalls of various visuals as well as explain the importance of storytelling. The goal will be to challenge actuaries to think about their analyses with visuals in mind while providing tangible examples to help them begin down the path of visualizing their work products.

Speakers:

Paul Majchrowski, Actuary & Manager, Zurich North America

Keith Quigley, Actuarial Analyst, Allstate Insurance Company

How to Allocate Capital if You Really Must

Concurrent Session 4, Wednesday, May 13, 10:00 a.m. - 11:15 a.m

Level of Knowledge: Level 2: General knowledge of the subject (4-9 years)

This session follows on from those sessions we, along with Jesse Nickerson and Don Mango, presented in 2018 on Spectral Risk Measures (SRM). It presents new work providing a complete solution for

allocating capital and for determining the cost of capital by line in a spectral risk measure world. The session will review SRMs and pricing by layer. It will then show how there is a uniquely defined capital allocation assuming only an SRM pricing function, a regulator risk-based capital formula and an assumption of equal priority in default. The new solution has several interesting features, most notably that it produces different target ROEs on allocated capital by line. It can produce negative margins for low risk lines. Overall its allocations appear sensible to the working actuary. The approach solves the problem of so-called excess capital. It gives materially different results than the industry standard, RORAC approach. The theory will be illustrated with several realistic examples a

Speakers:

Stephen Mildenhall, Dr, St. John's University

John Major, Director of Actuarial Research, Guy Carpenter & Co. LLC

Parametric insurance - a growing opportunity

Concurrent Session 5, Wednesday, May 13, 12:15 p.m. - 1:30 p.m

Level of Knowledge: Level 1: No prior knowledge of the subject (0-3 years)

This presentation will give an overview of parametric insurance, explain some case examples in the market, and review of how they work.

Speakers:

Jonathan Charak, VP - Emerging Solutions Director, Zurich North America

Sebabrata Sarkar, Special Lines Innovation Sr. Project Lead, Vice President, Swiss Re America

Estimation of Individual Claim Liabilities: Traditional and Machine Learning Methodologies

Concurrent Session 5, Wednesday, May 13, 12:15 p.m. - 1:30 p.m

Level of Knowledge: Level 2: General knowledge of the subject (4-9 years)

The intent of the session is to show and to inform the audience on how to implement machine learning (ML) algorithms in the framework of calculating Claim Liabilities.

Traditionally, in order to estimate future losses, actuaries have been using methodologies based on aggregated data in the form of run-off triangles.

The aim of the presentation is to outline the limitations of such methodologies and propose more sophisticated tools and models based on ML algorithms that are capable of overcoming drawbacks of standard approaches, namely, accuracy and timeliness of estimates.

We propose a new framework that could enhance traditional estimates in providing an additional evaluation tool that could be used by actuaries as another term of comparison.

In addition we will present results achieved alongside advantages and disadvantages, ie. issues that may be encountered in a corporate production environment when transitioning from standard approaches to more sophisticated ones.

Speakers:

Linda Brobeck, Director & Consulting Actuary, Pinnacle Actuarial Resources, Inc.
Marco De Virgilis, Senior Actuarial Analyst, Allianz Global Corporate & Specialty SE

CAS Admissions Update

Concurrent Session 5, Wednesday, May 13, 12:15 p.m. - 1:30 p.m

Level of Knowledge: Level 2: General knowledge of the subject (4-9 years)

Get updates on some of the recent changes in admissions including the delay of Spring Exams, how the CAS plans to administer fall exams, and other future changes in the works. The CAS Vice President of Admissions and the CAS Admissions Staff Actuary will answer your questions on the current syllabus and the future of the CAS syllabus.

Speakers:

Wesley Griffiths, Staff Actuary - Admissions, Casualty Actuarial Society
Jeanne Crowell, Supervising Actuary, Accident Fund

An Insurers Perspective on Carbon Intense Fuels

Concurrent Session 5, Wednesday, May 13, 12:15 p.m. - 1:30 p.m

Level of Knowledge:

At this session the speaker will address the impact of decisions made by insurers moving to restrict the insurance cover they offer to companies that build or operate coal power plants or other plants powered by carbon-intense fuels.

Speakers:

Ben Harper, Head of Corporate Sustainability, Zurich Insurance Company, Ltd

Insurtech: Disruption in the Industry

General Session 4, Wednesday, May 13, 2020 2:15 p.m. - 3:45 p.m

Level of Knowledge:

Change is coming to insurance. The tradition-bound P&C Industry is on the cusp of the most radical change since the invention of the automobile. Are insurers prepared for the size, scale, and speed of what's to come from the wave of millennials, new technology and venture capital funding? This session will likely explore:

- Evolving distribution systems through Insurtech;
- New Insurtech companies and emerging risks (e.g. drone insurance);
- Real time pricing and on-demand insurance;
- Big Data, Predictive modeling, Artificial Intelligence; and

- Mitigating bureaucracies and regulation.

Speakers:

Robert Galbraith, Author, *The End of Insurance as We Know It*

Lyndsey Toeppen, Vice President, Sandbox Insurtech Ventures

Pankaj Parashar, Founder and CEO, Purple Ant

Eric Schmidt, Chief Actuary & Director of Insurance Product Management, Clearcover