



February 2024

TO: Iowa Actuaries Club Members
FROM: Derek Koster, Vice Preseident, (515) 802-1584
RE: March 6, 2024 Education Day

Meeting Information

Wednesday, March 6, 2024
8:15-12:00 Central time
Microsoft Teams

Time	Topic
8:15 – 8:30	Room A: Introduction & housekeeping items
8:30 – 9:30	Session 1A: Demystifying Large Language Models and Use Cases for Actuarial Professional Development Session 1B: Attraction and Retention of the next generation of Actuaries Session 1C: Industry Trends
9:45 – 10:45	Session 2A: The Bountiful Actuarial Toolbox: Professionalism Resources for Everyday and Beyond Session 2B: Interpretable Machine Learning
11:00 – 12:00	Session 3A: U.S. Population Mortality Trends Through 2023 Session 3B: Reinsurance 101: Life & Health Reinsurance

Reservations

Please RSVP through the [Iowa Actuaries Club website](#) (use Chrome, not IE) by **5pm CST on Monday, March 4**. If your company contact has changed, please let me know.

Contact Us

If you have questions or suggestions concerning the club's activities, please contact any of the officers.

2023– 2024 Club Officers		
Jordan Reinard President	(515) 556-7262	Jordan.Reinard@fglife.com
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Makayla Stow Secretary/Treasurer	(515)	Stow.Makayla@principal.com

2023 – 2024 Program Committee		
Derek Koster (Chair)	American Equity	Derek.koster@american-equity.com
Jordan Reinard	Fidelity & Guarantee	Jordan.Reinard@fglife.com
Makayla Stow	Principal	Derek.koster@american-equity.com
Ingrid Frangenberg	Wellable	ifrangenberg@wellable.com
Tong Teh	Coaching Actuaries	tteh@coachingactuaries.com

Topics and Speakers

8:30 – 9:30 am

Session 1A

Demystifying Large Language Models and Use Cases for Actuarial Professional Development

In this session, we will explore the core principles of language models and illustrate their potential applications to enhance actuarial professional development. Given the rapid evolution of Large Language Models (LLMs) like ChatGPT, it is crucial to understand both their potential pitfalls and how they can benefit actuarial profession. We will discuss the principles of language models using a simple model trained on the Actuarial Standards of Practice. The discussion will also cover how LLMs can interact with other modules and external documents to overcome their limitations and provide more benefits. The goal is to generate interest in language models among attendees and to foster a dialogue where questions and ideas can be exchanged.

Dan Kim

Session 1B

Attraction and Retention of the next generation of Actuaries

Over the last 10 years, the number of people taking actuarial exams has dropped over 40%. Most centers of actuarial excellent have enrollment at 50% of their peak. The Actuarial Development Institute works with students and academic institutions across the US and Canada collecting information on student preferences, trends, and compensation. Do you want to know what the next generation of actuaries want in a company? Are you providing competitive opportunities to a dwindling pool of candidates? Learn more at this session.

Charles Johnson

Session 1C

Industry Trends

In this session, we will take a dive into the broad industry-wide trends that have developed which will in turn impact the work & life of actuaries.

Alexandre Lemiux

9:45 – 10:45 am

Session 2A

The Bountiful Actuarial Toolbox: Professionalism Resources for Everyday and Beyond

Gain insights into the professionalism resources that are at your disposal for higher-level professional challenges such as ethical dilemmas, explaining professionalism to non-actuary stakeholders in your work, and branching into an emerging area of practice. An experienced professionalism thought leader and speaker from the American Academy of Actuaries will walk you through the many tools in the “actuarial toolbox” that you can turn to with professionalism questions of all kinds—from basic to advanced—and where you can get help when you can’t find the answers.

Nancy Behrens

Session 2B

Interpretable Machine Learning

Machine learning algorithms fit models based on patterns identified in data and can be very complex. In this presentation, we describe and illustrate a range of methods for interpreting machine learning models from the growing field of Interpretable Machine Learning (IML).

Larry Baeder

11:00 am – 12:00 pm

Session 3A

U.S. Population Mortality Trends Through 2023

COVID-driven mortality disruptions have been the big story in the U.S., especially in 2020-2021, but as the largest pandemic effects decrease other trends come to the fore. In this session we'll look at some of the major mortality trends that have continued into 2023 with provisional results, with trends by sex, age groups, and cause of death. Some of the trends may indicate a "new normal" for certain causes of death, while others had already shown disturbing trends exacerbated by the pandemic.

Mary Pat Cambell

Session 3A

Reinsurance 101: Life & Health Reinsurance

Life and Annuity Reinsurance of Reinsurance 101 is designed to give you an introductory overview from the carrier side of life and annuity reinsurance. Topics covered will range from reasons for reinsurance, terms used in reinsurance and what to expect to find in the reinsurance agreement.

Kevin Dill

Chris Arvia

Biographies

Session 1A

Dan Kim, FSA, MAAA, CERA is a Managing Actuary at American Equity. Dan currently leads Cash Profitability Team to address financial reporting needs involving asset-liability models. Dan enjoys exploring complex problems including predictive models. Dan's expertise includes Bermuda financial reporting framework, asset-liability management, Cash Flow Testing, reserve financing, embedded value, IFRS17, economic capital, Insurance Capital Standard, asset modeling, economic scenario generation, experience study, and business analytics.

Session 1B

Charles Johnson is a Fellow of the Society of Actuaries, Chartered Enterprise Risk Analyst, Member of the Academy of Actuaries, and former Life Actuary at Pacific Life Insurance, State Farm and Northwestern Mutual. He is the CEO of the Actuarial Development Institute and has 10 years of corporate actuarial recruitment experience.

Session 1C

Alexandre Lemieux is a partner of the Actuarial Service group at PricewaterhouseCoopers LLP. During his time at PwC Alex has assisted a number of companies in adoption of IFRS17, LDTI as well as other accounting bases (e.g. PBR, PRCGAAP, CALM). He is currently the actuarial lead of LDTI and IFRS17 implementations for both direct writers as well as global reinsurers. In this role he is responsible for helping management assess methodologies, tools, and processes for their implementations. Finally, Alex is responsible for the audit of both an IFRS17 insurer as well as a large European IFRS17 reinsurer seeking oversight of their IFRS17 methodologies, tools, and processes. Furthermore, Alex is the lead partner for a Fortune 250 US life insurer. Alex graduated from the Universite Laval with a Bachelor of Science degree specialized in actuarial science. He is a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries. As a native of Montreal he is fluent in both French and English. Finally, he is currently chair of the financial reporting council of the SOA.

Session 2A

Nancy Behrens, MAAA, FSA, is a member of the American Academy of Actuaries' Council on Professionalism and Education, and chairperson of its Committee on Education. She has extensive volunteer experience on professionalism issues as a past chairperson of the Academy's Committee on Professional Responsibility and a former member of the Actuarial Board for Counseling and Discipline.

Session 2B

Larry Baeder is a Data Scientist at Milliman, Inc. Larry's experience includes using cloud computing and big data tools with large telematics datasets, predictive modeling for various lines of insurance including commercial auto, pet, and homeowners, and supporting competitive intelligence software development. Larry has a master's degree in Statistics from Texas A&M University, and a degree in Computer Science from the University of Wisconsin.

Session 3A

Mary Pat Campbell, FSA, MAAA is VP, Insurance Research at Conning in Hartford. She has been involved in the actuarial community, most recently in the American Academy of Actuaries' Data Science and Predictive Analytics Committee and Project Oversight Groups at the Society of Actuaries. She often writes about mortality trends on her substack:

<https://marypatcampbell.substack.com/> [marypatcampbell.substack.com]

Session 3B

Kevin Dill, Co-Founder of Blue Trident Group is a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries. Kevin is highly knowledgeable in mergers and acquisitions, as well as the consolidation of administrative systems. With more than two decades of experience in the life, health, and annuity insurance industry, he has successfully closed over a dozen acquisitions and played a key role in more than a dozen system conversions. Kevin possesses a deep understanding of insurance company operations, from data management to reporting.

Chris Arvia is a Fellow of the Society of Actuaries and currently serves as Assistant Vice President of Hannover Re's Health Solutions business unit. Chris joined Hannover Re in 2018 being primarily responsible for pricing Hannover Re's Accountable Care Organization (ACO) business and established Hannover Re as a leader in this market. He is also involved in efforts to expand Hannover Re's analytics and risk taking capabilities to provide solutions that will enable provider organizations to confidently move into more advanced value based care arrangements.

Prior to Hannover Re, Chris spent three years at Nyhart, a national actuary and employee benefits consultancy, where he advised self-insured employer plans on reporting and rate determination. Chris is a graduate of Purdue University with a degree in Actuarial Science and Applied Statistics.