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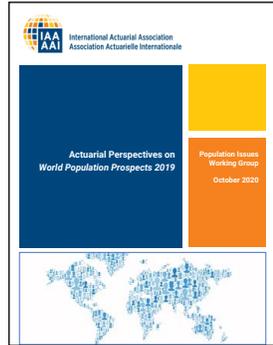
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Thank you to our volunteers

IAA RELEASES PAPER ON ACTUARIAL PERSPECTIVES ON WORLD POPULATION PROSPECTS 2019



The International Actuarial Association (IAA) is pleased to announce the publication of the discussion paper Actuarial Perspectives on World Population Prospects 2019, developed by its Population Issues Working Group (PIWG).

This paper provides an overall actuarial perspective on the United Nations' (UN's) World Population Prospects 2019 (WPP2019). WPP2019 presents the latest revision of population projections for the world and for individual countries, groups of countries and regions, summarizing estimates for 1950 to 2019 and

projections from 2020 to 2100.

The paper aims to inform actuaries around the world about the possible evolution of the world's global population based on the UN report. It discusses the methodologies used in WPP2019 and the assumptions underlying the projections. It identifies some areas of particularly great uncertainty that should be considered when using these projections in actuarial work such as developing population projections for applications in individual countries and financial reviews of social security plans. The paper also aims to summarize some of the key features of the results of WPP2019 in a way which will interest and inform actuaries, as well as a wider audience of organizations with which the IAA interacts.

The paper is available [here](#).

The PIWG will host a webinar on December 2 at 7:00 AM (EST) to present this paper. To register for it, please [click here](#).

To learn more about the IAA's work on this topic, please contact [Amali Seneviratne](#), Director of Technical Activities at the IAA Secretariat.

IAA RELEASES DISCUSSION PAPER ON RISKS TO WATER RESOURCES



The IAA is pleased to announce the publication of a discussion paper, Risks to Water Resources, developed by its Resource and Environment Working Group (REWG).

Since water resources are critical for human survival, even short-term disruptions in the supply of water can have potentially devastating consequences, including adverse impacts on financial security systems.

The main purpose of this paper is to start a discussion

on water resource risk among actuaries before addressing the broader scientific and public policy communities. We believe that actuaries need to be informed about how water resource risks affect a wide range of perils commonly insured, including life, health, property and agriculture.

The paper illustrates the central risks by considering three representative systems in New York City, Mexico City and India. It goes on to illustrate best-practice actuarial risk management techniques, applied in a context outside the traditional actuarial domain. It may therefore serve as a useful educational tool, and a showcase for the profession's risk management capabilities.

The paper can be found [here](#).

The REWG will host a webinar on December 14 at 7:00 AM (EST) to present this paper. To register for it, please [click here](#).

To learn more about the IAA's work on this topic, please contact [Amali Seneviratne](#).

NEWS FROM MEMBER ASSOCIATIONS

Canadian Institute of Actuaries - Canada

Progress amid pandemic: a CIA update

As the Canadian Institute of Actuaries (CIA) enters this year's final quarter, it is looking back with pride at the resiliency of the profession, its members and the Institute. Adapting to changes in the past few months has been far from easy, but it says these challenges have primed it for success.

Through use of innovation and technology, the CIA has connected with its members meaningfully while increasing visibility in new and emerging areas of risk and practice.

It is happy to share the following update on its activities and promising initiatives for the future.

New in research

Since June 2020, the CIA has published more than 10 research reports, papers and guides.

Most recent was the [Canadian Insurance Industry Monthly Aggregate Data Analysis](#) report highlighting data aggregated from 13 Canadian insurance companies. The research charts a bump in individual life insurance claims attributed to COVID-19 in the spring; data which the CIA continues to track as Canada goes through the second wave of the pandemic. [Read more in the press release](#).

Also new is [The Impact of Longevity Annuity Provision on Canadian Retirement Income Planning](#). This recent CIA research paper takes a closer look at longevity annuities and how they fit in with Canada's tax rules and retirement system.

You can read more CIA research [here](#).

Podcasts

Did you know the CIA produces its own podcast series featuring content tailored specifically for actuaries?

Growing in popularity every day, the Seeing Beyond Risk podcast offers an exploration of actuarial research and other topics of interest to the profession. Recent episodes include:

- [Episode 64: Mental health claims in the group benefits market](#) – the impact of increasing mental health claims in the group benefits area on employers and group providers;

- [Episode 66: Interview with Riley Dirks](#) – recent graduate Riley Dirks discusses achieving the unique accomplishment of completing his actuarial exams while at university, strategies for success and what it is like entering the workforce amid a pandemic.

For these and other great discussions, find the CIA on [Spotify](#) or [Apple Podcasts](#).

Taking action on diversity

In late June, the three CIA presidents – past, current and incoming – issued a [statement](#) expressing their solidarity with all who strive for racial equality, as well as a commitment to support the diversity that makes the CIA a strong professional association.

Led by the Institute's Task Force on Diversity, in partnership with Diversio, a Canadian data and analytics company focused on supporting organizations to become more inclusive, a survey was developed and circulated to establish a benchmark on diversity and inclusion within the Institute.

The survey received 772 responses, providing useful data and insights into the demographics and experiences of CIA members. These findings will allow the Institute to move forward in a way that reinforces its principles of inclusion and equal opportunities for all. [Here](#) is a look at the key findings.

Virtual, without borders

Like many of its colleagues around the world, the CIA has gone virtual with the delivery of all education and professional development events, as well as in its ongoing interactions with partners and stakeholders.

The CIA's flagship annual conference, act20, took place over three weeks in November, hosting participants from far and wide. More virtual opportunities are continually being added to its [events line-up](#), many of which are open to non-members.

While it hopes to return to in-person meetings someday, going virtual has broadened its capacity to welcome a broader range of audiences.

Deutsche Aktuarvereinigung e. V – Germany

German Association of Actuaries introduces a new qualification

The General Assembly of the German Association of Actuaries (DAV) took place at its Annual Autumn Meeting 2020. In the General Assembly the DAV introduced its new qualification, Certified Actuarial Data Scientist (CADS). The CADS combines questions of data processing as well as data protection, the development of data science applications and the use of state-of-the-art programming languages against an actuarial background. The additional qualification is aimed at fully trained actuaries who wish to specialize further and expand their field of activity to include data science in the context of insurance and financial services. The introduction of the new title was approved by a large majority of the meeting.

DAV makes qualification more flexible

The DAV Board recently approved the changing of the existing qualification process. The aim of the change is to fit the qualification process even closer to the demands of individuals' working situations. The content of the modules will in general be unchanged, but the order of the exams to be taken will be completely flexible to allow an individually suitable run-through. In addition, a third subject is to be added to the specialist knowledge in the areas with their own qualification (pensions expert, CERA, CADS) in order to be able to tailor the training more closely to personal requirements. Furthermore, the admission criteria have been matched to newer study programs in such a way that students with a qualitative background can start their actuarial education more easily. This adjustment is also intended to attract additional groups of graduates without changing the general scope of the qualification. All future members will have gone through the same requirements as current candidates.

actuvew

New content on actuvew

The actuvew archive is continuously growing. In the last few weeks more than 80 new videos from France, Germany, India, Ireland, South Africa and Switzerland have been published. Actuvew could set a new record: more than 1,000 videos on all actuarial topics are available on the platform!

The latest highlight was the 47th Convention of the Actuarial Society of South Africa, which took place on a virtual platform for the first time. Its exciting line-up of more than 40 presentations, panel discussions and workshops is now available on actuvew. Furthermore, in December about a dozen sessions will be exclusively published from the 30th Annual Conference of the Caribbean Actuarial Association, being held online from November 30 to December 4 under the overall theme of "Today's Actuary: Virtually Everywhere".

Actuarial Society of South Africa – South Africa

The Actuarial Society of South Africa ("ASSA") has been leading internationally in developing the banking practice area for actuaries. This led to the development of the banking fellowship subject material and the introduction of the first ever banking fellowship exam for actuaries in the second half of 2015. ASSA will be introducing the banking exam internationally in the first half of 2021.

The banking practice area for actuaries developed in South Africa ahead of other international jurisdictions following a deliberate strategy by the ASSA leadership in the last decade in promoting wider fields and developing these into new practice areas. This is a great success story with which the ASSA can be proud.

As part of on-going efforts in developing banking material in preparation for the introduction of the banking international exam, ASSA has produced summary notes mainly for international audience. Please find the introductory section of these notes [here](#). The Banking Working Group has been watching developments and eagerly awaiting availability of these notes.

Should these summary notes be of interest to actuarial and other banking professionals within member associations for CPD purposes, the notes can be ordered through the ASSA webshop at R850. Please follow [this link](#) to place your order. The IAA member associations can share this with their membership.

Kind regards

The IAA Banking Working Group

Casualty Actuarial Society – United States

Jessica Leong begins term as President



Jessica Leong, an insurance industry veteran with more than 20 years of experience, began her term as President of the Casualty Actuarial Society (CAS) earlier this month in conjunction with the 2020 CAS Annual Meeting. She has been actively involved with the CAS for over two decades, having earned her Fellowship in 2006. Jessica has taken on various leadership roles within the organization, such as serving on the CAS Board of Directors from 2013 to 2016. She is currently the lead data scientist at Zurich North America. To read more, visit the [CAS website](#).

Register for the Ratemaking, Product, and Modeling Virtual Seminar

The Casualty Actuarial Society is proud to present the next Ratemaking, Product, and Modeling (RPM) Seminar as a completely virtual event from March 15–17. The RPM Seminar Committee is putting on this event, complete with workshops, roundtables, a keynote, a general session and 24 concurrent sessions. This virtual meeting has opportunities for education, networking and meeting with exhibitors, all in an immersive environment designed to

make you feel like you are at an in-person meeting – with no travel nor additional expenses, and from the convenience of your own desk. To register, visit casact.org/rpm.

CAS unveils new Strategic Plan

The CAS has released its [2021–2023 Strategic Plan](#), which is a bold new vision that sets the direction for the organization's continued growth and success over the next three years. The inspiration for the Strategic Plan is illustrated through a new envisioned future that foresees CAS members being "sought after globally for their insights and ability to apply analytics to solve insurance and risk management problems".

The Plan includes a road map for moving towards the envisioned future, built around three pillars – the opportunities the CAS will aggressively pursue over the next three years:

- Pillar 1. Building Skills for the Future;
- Pillar 2. Diversifying the Pipeline;
- Pillar 3. Expanding Globally.

CAS members and other stakeholders are encouraged to read the new Strategic Plan, and to provide any feedback by emailing CEO@casact.org.

Society of Actuaries

The SOA Virtual Annual Meeting & Exhibit: looking ahead

The Society of Actuaries (SOA) [2020 Virtual Annual Meeting & Exhibit](#) took place from October 26–29. It was designed to honor the spirit of innovation that fueled the profession in a year of challenges, growth and transformation around the world.

During the Opening General Session, 2019–2020 SOA President Andrew D. Rallis [remarked](#) on the importance of working together, adapting and learning as we face new challenges. He also emphasized the need to partner globally to grow as a profession. "The SOA's member and candidate populations have become more international in recent years," he explained. "We're going to need to partner more widely and intensively on education, including with local actuarial organizations. We seek to partner with other organizations, especially on a global level."

His successor, 2020–2021 SOA President Roy Goldman, took virtual centre stage during the General Session, mirroring his sentiment about the challenges faced in 2020. "This year has been a challenge for everyone, even actuaries who are trained to evaluate risk," Roy noted in his [inaugural speech](#). "We adapt, we evolve, we grow and we learn. But that is what actuaries do, and it is what I love about this great profession."

He talked about the future of the profession and two key points he will address in the coming year: the SOA's Long-Term Growth Strategy and its response to systemic racism. "These two efforts go hand in hand; strengthening our profession to face the challenges ahead while at the same time expanding our community to represent the demographics and the populations we serve."

Read the full speeches or watch them on YouTube (Andrew D. Rallis [here](#) and Roy Goldman [here](#)) to find out more about the SOA's vision for the year ahead.

NEWS FROM WORKING GROUPS

The IAA's Microinsurance Working Group hosted a session on Inclusive insurance amidst a pandemic during the International Conference on Inclusive Insurance (Digital Edition). Details of the session, speakers, presentations and recording can be found below:

Pricing Microinsurance products can be a challenge. Often, there is limited data to work with. Then the actuaries arrive and complicate matters further. This session will consist of two parts. Firstly, it will explain the pricing of MI products using a simple health product as an example. The talk will be interactive, gathering pricing data from the audience to demonstrate a method to obtain relevant pricing data where none is available – the typical scenario. The second part considers the impact of major risk events such as natural disasters or pandemics on claims and pricing. Most people consider only the immediate impact, such as deaths during a hurricane. But there are long-term and permanent consequences that must be considered, such as increased poverty, health risks and mortality. Speakers will draw on their experiences from events such as hurricanes and the Covid-19 pandemic. The objective is to help practitioners improve pricing and risk mitigation, especially following a major event.

Speakers:



Denis Garand

Denis Garand and Associates, Canada

> [download presentation](#)

Jeff Blacker

Independent Consulting Actuary, USA

> [download presentation](#)

Facilitator



Nigel Bowman

Co-founder, Inclusivity Solutions, South Africa

> [watch the video recording of Session 3](#) (youtu.be)

UPCOMING EVENTS

EAA – European Actuarial Academy GmbH

As the European knowledge centre for actuaries, the EAA is offering a broad variety of attractive actuarial training topics within the next few months. Below is an overview of some upcoming web seminars:

- **Deep Learning in Insurance – Theory and Practice**, February 1–2, online
The main purpose of this [online training](#) is to get the participants acquainted with deep learning (DL) models. To this end, a healthy mix of theory and practice will be provided; however, it is important to note that some time will be spent going through the theoretical foundations of neural networks and hence DL, as the inner workings of these models are a bit different from those in the classic statistical models. Time will also be spent on real insurance applications, to clearly illustrate how to use this amazing technology in practice. More specifically, applications on technical pricing in non-life and text analysis will be provided.
- **Solvency II 2020 – Review**, February 23, online
The European Commission had asked the European Insurance and Occupational Pensions Authority (EIOPA) to provide technical advice on the review of the Solvency II Directive by June 30, 2020. As

a consequence of COVID-19, advice will now be delivered at end of December 2020. In line with the requirement of Article 77f (2), EIOPA will provide its technical advice in the form of an opinion. It will consider the comments received from stakeholders on two consultation papers published in 2019. The Actuarial Association of Europe (AAE) has commented on both papers, and the new timeline will allow an assessment of the impact of the pandemic on the Solvency II review. Overall, the objective of this [webinar](#) is to inform participants of EIOPA's opinion.

- **Machine Learning in Finance and Insurance**, March 10, online
The objective of this [web session](#) is that participants should become familiar with neural networks used to solve practical problems in finance, banking and insurance. To achieve this, the session will introduce machine learning techniques step by step. Participants will also learn how to implement the introduced algorithms so that they can build up their own use cases in Python.
- **Stochastic Modeling of Mortality with Special Focus on Pandemic Risk**, March 23, online
The goal of this [web session](#) is to give participants a comprehensive introduction to stochastic mortality models, epidemiological models and how the two interact during pandemics. It will examine in detail a stochastic mortality model based on the IAA textbook Stochastic Modeling – Theory and Reality from an Actuarial Perspective, and participants will learn to calibrate and apply the model through use of a practical, Excel-based example. The model presented in the textbook includes a pandemic component, which is calibrated based on historical pandemic experience. This web session will present updates to that component to reflect emerging experience during the COVID-19 pandemic. Participants will also learn how COVID-19 compares to various historical pandemics.
- **Understanding IFRS 17**, May 6–7, online
This [web session](#) is designed to provide participants with a comprehensive introduction to the new measurement, presentation and disclosure guidance for insurance contracts. It will cover life, health and non-life business – including the special guidance on direct participating contracts and shorter-term non-life contracts – and give useful examples. The overall goal is to enable participants to understand the standard and help them in transferring the requirements into their specific situations. It is thus intended to prepare participants for model development, implementation, testing, reviewing and consulting with management, accounting and auditors.

Please visit actuarial-academy.com for further information about this and other EAA events.

Casualty Actuarial Society

Actuarial Colloquia 2021 postponed

After much deliberation among the ASTIN and AFIR/ERM Section boards and CAS staff, considering the current state worldwide of the COVID-19 pandemic, the actuarial colloquia originally scheduled for May 2021 has been postponed to the spring of 2022. With this change, the call for papers/presentations for the 2021 event has ended. We will be updating the timeline for the call for papers/presentations at a later date.

We will provide more information later as we finalize the dates and location.

More details will also be posted online. Please visit the [website](#) and sign up to have future updates delivered directly to your inbox.

THANK YOU TO OUR VOLUNTEERS

The IAA wishes to thank the members of the Scientific Committee and the ISAP 4 Task Force. The work done by these two groups has not gone unnoticed.

Scientific Committee:

- Thomas Béhar
- Peter Withey
- Assia Billig
- Chris Daykin
- Kurt Wolfsdorf
- Lindsay Smartt
- Nigel Bowman
- Micheline Dionne
- Marc Tardif
- Ashleigh Theophanides
- Michael Tichareva
- Tonya Manning



ISAP 4 Task Force

- Tamsin Abbey
- Robert Buchanan
- Guy Castagnoli
- Marius Du Toit
- Luc Farmer
- Marika Guralnik
- Gábor Hanák
- Jim Milholland
- Yoshio Nakamura
- Francis Ruygt
- Derek Wright
- Matthias Zerbst