

# ANNUAL REPORT 2018



International Actuarial Association  
Association Actuarielle Internationale

## 24 How We Operate

The IAA adheres to the values of integrity, accountability, transparency, and objectivity when dealing with Member Associations, other stakeholders and the public.



## MESSAGE FROM THE PRESIDENT



One of the important goals of the Executive Committee at the beginning of 2018 was to complete the IAA strategy review, and the discussion led us to think that restructuring of the IAA might be necessary, after 20 years of successful achievements and expansion of our operations, in order to make a leap forward and solve issues we are currently facing.

To make this happen, I thought it necessary for us, all the participants of the IAA, to have a common understanding of what the IAA was doing in the first place. This was the reason for launching a Town Hall meeting as a general session where the holistic state of the IAA could be presented and comments exchanged, starting with the Berlin meetings in May 2018.

We spent a lot of time this year discussing the proposed restructuring of the IAA, and talks are continuing. To cut a long story short, I was very happy that at the Council meeting in Mexico City members unanimously supported the direction of the potential restructuring, focusing on three important functions of the IAA. I would like to elaborate on them and highlight some of our major achievements.

### Supranational Relationships

- Through our participation at various meetings, we are maintaining a close relationship with the International Association of Insurance Supervisors (IAIS) and its leaders. The areas of collaboration include the development and delivery of supervisory capacity-building training courses.
- We are recognized as an observer in the International Financial Reporting Standard

17 (IFRS 17) Transition Resource Group of the International Accounting Standards Board (IASB). Many of our ongoing activities support the implementation of IFRS 17, such as International Standard of Actuarial Practice 4 (ISAP 4), International Actuarial Note 100 and the IFRS Coordination Task Force. The IAA has projects related to International Accounting Standard 19 (IAS 19) as well.

- The memorandum of understanding (MoU) between the IAA and Organisation for Economic Co-operation and Development (OECD) was renewed for the second time on June 2, and we are collaborating on various projects of mutual interest.
- We are also maintaining close relationships with other organizations, such as the International Auditing and Assurance Standards Board (IAASB), International Social Security Association (ISSA), International Organisation of Pension Supervisors (IOPS), International Labour Organization (ILO) and United Nations.

Besides our traditional areas of insurance and pensions, recently many international organizations have expressed interest in the topics of climate change, cyber risk, Fintech, etc., and it is necessary for the IAA to come up with effective ways to inform and influence them regarding these emerging topics.

### Promotion of the Profession

- We began the year by welcoming the Actuarial Association of Sri Lanka as the 73<sup>rd</sup> Full Member Association (FMA), followed by the Actuarial Society of Iran as the 25<sup>th</sup>



Associate Member Association (AMA), the Nigerian Actuarial Society as the 74<sup>th</sup> FMA and the Ecuadorian Actuarial Association as the 26<sup>th</sup> AMA, bringing us to 100 Member Associations.

- As our profession expands around the world, we have had active regional events, such as the 5<sup>th</sup> African Actuarial Congress (AAC), hosted by the Association Marocaine des Actuaire, and the 14<sup>th</sup> Annual Asia Regional Seminar, hosted by the Actuarial Society of Hong Kong (ASHK).

Ensuring the quality of our profession is a basis for us to gain trust from wide-ranging stakeholders of the IAA, and promotion of our profession is a way to contribute to the public interest around the world. I am happy to see our profession steadily expanding in Asia and gaining momentum in Africa.

### Development of Competence

- The successful 31<sup>st</sup> International Congress of Actuaries (ICA) hosted by Deutsche Aktuarvereinigung (DAV) in 2018, and the 18<sup>th</sup> Asian Actuarial Conference in Hong Kong, are great examples of providing a forum for discussion on various topics among actuaries from around the world.
- Several papers were published, namely: Measuring and Reporting Actuarial Obligations of Social Security Systems (Social Security Committee); the Monograph on Defined Benefit Pension Plan

Funding and the Role of Actuaries (Pensions and Employee Benefits Committee); and lastly, the Monograph on Risk Adjustments for Insurance Contracts under IFRS 17 (Insurance Accounting Committee).

- IAA Sections and working groups of the Scientific Committee have been active in organizing events and other activities and publishing papers.

Advancing our scientific knowledge, providing forums for discussions and developing competence in the changing world has kept our profession reputable for many years and, I believe, will keep our profession relevant into the future. These three functions are closely associated with each other, and dynamically interact to achieve our vision.

Through earnest discussions on restructuring, I believe that the IAA will become more efficient to carry out our mission, fully supported by Member Associations around the world and by dedicated volunteers who generously devote their time and effort for the great international family of actuaries.

Thank you!

*M. Yoshimura*





## MESSAGE FROM THE **EXECUTIVE DIRECTOR**



In 2018 we celebrated the 20<sup>th</sup> anniversary of the modern IAA. A lot has changed in 20 years, and 2018 was the first year of our major project that will re-evaluate the entire organization: the IAA Renewal.

We benefit from having a solid foundation on which to build. Far from having to construct a new home, we simply need to fix some of the normal cracks that have appeared over the last 20 years. The year started off rapidly with the Fees Task Force, which aimed to determine a more robust, fair and transparent institutional fee structure for our FMAs. This was quite an effort and it involved more than 20 FMAs, weekly calls spanning 19 time zones, close to 1,000 emails, data gathering and analysis, and all of this via a very successful time-limited task force.

The discussions about fees illustrated two core issues: (1) the IAA has grown tremendously over the last 20 years, both in terms of the number of FMAs and the number of IAA entities; and (2) the level of resources, notably the number of staff to adequately support this growth, has not been increasing accordingly. The result is an organization with a bloated and underfunded structure where silos and duplication are the result of unnecessary complexity.

What started out as a restructuring of the IAA quickly evolved, as the scope of the task at hand is not limited to how we structure our work, but also includes how we are governed, the organizational culture and how we manage our internal divisions, notably our Sections. The IAA Renewal is a rare opportunity to force ourselves to look at what we are doing, how we are doing it and more importantly why we are doing some

things but not others.

Here are a few highlights of 2018: we had an amazing AAC in Casablanca, and an impressive record-setting ICA in Berlin managed impeccably by our host the DAV, and I have to say how impressed I was with our Asian FMAs and their Asian Actuarial Conference. I had the pleasure of representing the IAA at numerous FMA events and meetings and everywhere the energy and enthusiasm towards the IAA was palpable.

Most important of all: we approved our 100<sup>th</sup> member association in the IAA. This is not a small accomplishment; it is the direct result of the work of the IAA, all our FMAs and our dedicated volunteers to grow the profession worldwide.

My team and I look forward to continuing our outreach efforts to ensure we leverage an expanding number of opportunities to further develop the profession. This is made possible by working together as a strong and unified IAA under the guidance of our amazing volunteers and with the support from our very small, but mighty, head office staff.

Thank you all for your support!

A handwritten signature in black ink, reading "Mark Long".

## **SUPRANATIONAL RELATIONSHIPS AND INTERNATIONAL COOPERATION**

**The IAA endeavours to represent and promote the actuarial profession at the global level and provide key supranational audiences with actuarial input to improve the soundness of decisions being made on important issues with a global impact**



SUPRANATIONAL RELATIONSHIPS AND

# INTERNATIONAL COOPERATION

One important way in which it achieves this is through its participation with other supranational and international bodies that pursue common goals. Five supranational institutions involved in this endeavour are the IAA’s Partners: the IAIS, IASB, ISSA, IOPS and OECD; the IAA has engaged in an MoU with each of the latter four organizations.

The IAA participated in the following activities in support of action plans developed in accordance with the tenets of Strategic Objective 1: to bring key relationship bodies into contact with the relevant actuarial groups, build and maintain key relationships and provide actuarial input on matters of importance to relevant supranational organizations.

Key Highlights

Access to Insurance Initiative (A2ii)

- Participated in a steering committee consisting of representatives from the IAA, A2ii and IAIS to arrange training sessions to increase the actuarial capacity of insurance supervisory authorities, which will be taking place in 2019 in Mauritius and Trinidad and Tobago

International Association of Insurance Supervisors IAIS)

- Published a joint paper with the IAIS on assessing risk and proportionate actuarial services in inclusive insurance markets
- Completed Phase One of a project to review and update selected IAIS Core Curriculum training modules for insurance supervisors
- Participated in the IAIS Global Seminar in Russia, the IAIS Annual Conference in Luxembourg and other stakeholder meetings
- Provided comments on IAIS consultations (ComFrame and the Activities-Based Approach to Systemic Risk)

International Auditing and Assurance Standards Board (IAASB)

- Attended the regular meeting of the IAASB Consultative Advisory Group

International Financial Reporting Standards Foundation (IFRS)  
International Accounting Standards Board (IAIS)

- Participated in meetings of the IFRS 17 Transition Resource Group of the IASB
- Participated in the IFRS Advisory Council meetings, where discussion topics included the release of IFRS 17 in May 2017, the revised Conceptual Framework, the desired timing and depth of the effect analysis, the possibility of facilitating the adoption of standards and promoting them via webinars and other types of social media, and the 2018 review of the Accounting Standards Advisory Forum
- The IFRS 17 Coordination Task Force is continuing to discuss ways of coordinating IFRS 17-related activities of the various bodies of the IAA and has developed a draft discussion paper on the IAA Quality Assurance and Governance Initiatives on IFRS 17 that will be finalized in 2019
- Attended meeting to discuss the IASB’s projects on pension benefits

International Organisation of Pension Supervisors (IOPS)

- Participated in the International Seminar on Pension Supervision and Regulation organized by the IOPS, OECD and Pensions Authority of Ireland
- Attended the IOPS Annual Meeting and Global Forum in China, where the IAA representative was asked to speak at a session on sustainable finance and pension funds

International Public Sector Accounting Standards Board (IPSASB)

- Provided comments on the IPSASB Exposure Draft on Social Benefits

International Social Security Association/International Labour Organization (ISSA/ILO)

- Participated in a joint forum on social security that also featured the ILO, ISSA and Actuarial Association of Europe (AAE). Discussion also took place on mortality and population issues and the work products of IAA committees and working groups on these topics. Areas for collaboration involving the four organizations are being considered on an ongoing basis.

Microinsurance Network

- Attended the Microinsurance Workshop in Zambia

### Organisation for Economic Co-operation and Development (OECD)

- Participated in the International Seminar on Pension Supervision and Regulation organized by the IOPS, OECD and Pensions Authority of Ireland
- Attended meetings of the Working Party on Private Pensions and the Insurance and Private Pensions Committee
- Met with OECD representatives to discuss collaboration
- Presented at the Asian Development Bank Institute/Japan Financial Services Agency/OECD Roundtable on Insurance and Retirement Saving and at an OECD insurance roundtable
- Attended the OECD Conference on Unleashing the Potential of the Cyber Insurance Market
- Provided comments on a variety of OECD papers
- Collaborated on a long-term care and health project
- Signed a revised IAA/OECD MoU

### United Nations Environment Programme Finance Initiative (UNEP FI)

- Presented at UNEP's Shaping the Sustainable Insurance Agenda in Latin America event in Brazil

### United Nations Framework Convention on Climate Change (UNFCCC)

- Attended the UNFCCC's 24th Conference of the Parties to the United Nations Framework Convention on Climate Change in Poland



### WHERE WE'VE BEEN

In addition to the external relations initiatives listed previously, the Officers or an appointed IAA representative met with representatives in the following countries:





## PROMOTION OF THE PROFESSION

The IAA provides support for the development of the actuarial profession worldwide and promotes appropriate professional/education standards through Member Associations

## PROMOTION OF THE PROFESSION

Development seminars are organized with support from the Advice and Assistance Committee's subcommittees and the Actuaries Without Borders ® Section (AWB).

### Regional Development Seminars

#### Morocco

The Association Marocaine des Actuaire hosted the 5<sup>th</sup> AAC in Casablanca with the support of the Africa Subcommittee and under the High Patronage of His Majesty King Mohammed VI.

The theme of the congress was "Financial Development in Africa: Expertise and Public Interest", and the event was designed to place the actuarial profession at the head of governance with a major role in guaranteeing the financial sustainability and consumer protection of financial institutions.

The AAC attracted more than 250 participants from 28 countries, including 17 African nations, and provided a platform to exchange and collaborate with expert panellists.



#### Hong Kong

The ASHK and the Asia Subcommittee of the IAA hosted the 14<sup>th</sup> Annual Asia Regional Seminar under the title "The Professional Actuary – Managing Stakeholders". The seminar, attended by 60 participants from 13 countries, discussed topics related to identifying the key stakeholders in the actuarial profession, interpreting actuarial results and recognizing the key risks facing the profession, among others.





AWB Projects

Algeria

AWB collaborated with the Actuarial Demography Team from the Centre for Research in Applied Economics for Development on three days’ training on data science for health and life insurance. The seminar, which was attended by actuaries and statisticians, covered topics related to life and health insurance pricing and general overviews on Big Data, data science and machine learning in the insurance industry.

Bulgaria

The Bulgarian Actuarial Society and AWB collaborated on the organization of a two-day workshop for the members of the Bulgarian association and senior executives from insurance regulatory bodies and companies.

Macedonia

The Macedonian Actuarial Association collaborated with AWB on a two-day workshop entitled Professionalism and the Role of the Actuary with Case Studies. This covered basic principles of the regulatory framework defined in the Insurance Core Principles 7 and 8 as well as the principles of professionalism outlined in the association’s Code of Conduct and Disciplinary Procedure.

Russia

AWB collaborated with the European University of St. Petersburg by providing three lecturers to address such topics as quantitative aspects of risk management, insurance and financial modelling including ALM/DFA. The lectures reached an audience of approximately 100 actuaries and students. Additionally, the Russian Guild of Actuaries, together with the Central Bank of Russia and the Association of Professional Actuaries, invited volunteers from AWB to participate on the Moscow Actuarial Forum.



International Standards of Actuarial Practice

The Actuarial Standards Committee has a mandate to develop and maintain all ISAPs. ISAPs are model standards of practice and the IAA encourages its member associations to have in place standards of practice that are substantially consistent with these standards. ISAPs are model standards of actuarial practice and, as such, are not binding on any actuary.

Five ISAPs have been approved and revised as of December 1, 2018:

- ISAP 1 – General Actuarial Practice
- ISAP 2 – Financial Analysis of Social Security Programs
- ISAP 3 – IAS 19 Employee Benefits
- ISAP 5 – Insurer Enterprise Risk Models (adopted on November 21, 2016)
- ISAP 6 – Enterprise Risk Management Programs and IAIS Insurance Core Principles

A strategic action plan for ISAPs outlines the development of further standards, most importantly ISAP 4 – IFRS 17 Insurance Contracts (completion expected in late 2019). ISAP 7, focusing on “current estimates” and other matters in relation to the IAIS capital standards, has been temporarily suspended.





# DEVELOPMENT OF COMPETENCE

Promote the advancement of scientific knowledge and the skills of the actuarial profession

## PUBLICATIONS AND PAPERS



**RISK ADJUSTMENTS FOR INSURANCE CONTRACTS UNDER IFRS 17**

The measurement model within the IFRS for Insurance Contracts (IFRS 17) was designed to include risk in a key constituent in financial reporting. While a substantial amount of actuarial literature is available for various applications of risk margins, much of that material is not directly applicable to the specific needs of IFRS 17. There is a need to provide such a focused source of technical education material as IFRS 17 goes into effect. Many of the relevant risk adjustment methods for IFRS 17 transcend national borders and are relevant in any country. For this reason, this monograph has not focused on practice in a specific country. However, parameters and assumptions have been illustrated more generally rather than specific to regions and countries, and case studies have been included as practical illustrations of the various methods in use. Readers can use the educational material to help them develop their own parameters and assumptions based on their current and historical experience and their specific economic environment.



**MEASURING AND REPORTING ACTUARIAL OBLIGATIONS OF SOCIAL SECURITY SYSTEMS**

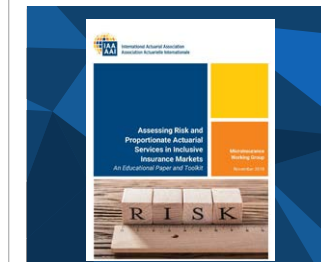
Social security arrangements, particularly social security retirement systems (SSRSs), are founded through legislation and generally very important, both in sheer size and to their many stakeholders. Actuarial measurement of and reporting on their current and expected future financial status are crucial inputs to a proper understanding of their sustainability (their ability to fulfil current promises to pay benefits to people over the long term) and how they affect the finances of the government as a whole and the entire economy as measured in national accounts.

Many accounting and statistical agencies and institutions have already issued or are considering issuing guidelines on measuring and reporting actuarial obligations of social security systems. This principles-based paper presents the SSC's perspectives on measurement and reporting of actuarial obligations of SSRSs and emphasizes the importance of relevant disclosures.



**DEFINED BENEFIT PENSION PLAN FUNDING AND THE ROLE OF ACTUARIES**

This educational monograph considers the funding of defined benefit (DB) pension plans and specifically the prefunding of DB pension plans rather than pay-as-you-go systems. It looks at some of the key questions that arise when considering how pension plans are funded and the role of actuaries in helping to answer these questions. It looks too at some of the key drivers for different approaches to pension plan funding. It uses the term pension plan to refer to the legal entity or arrangement that is used to deliver the pension benefit.



**ASSESSING RISK AND PROPORTIONATE ACTUARIAL SERVICES IN INCLUSIVE INSURANCE MARKETS - AN EDUCATIONAL PAPER AND TOOLKIT**

Around the world, people from a low-income background are vulnerable to a variety of risks due to their working and personal conditions. They often face the risk of falling into hardship due to the lack of social safety nets. If structured appropriately, insurance can play an important role in helping low-income people manage such risks. The goal of inclusive insurance is to provide financial protection against risks in a way that is affordable, sustainable, responsible and accessible by all types of customers, particularly customers from a low-income background.

This educational paper and toolkit addresses several questions regarding the application of proportionate actuarial services in inclusive insurance.



**DECARBONIZATION: A BRIEFING FOR ACTUARIES**

This paper provides an introduction to the topic of decarbonization for actuaries around the world. Aspects covered include: the main types and sources of greenhouse gas emissions; relevant international agreements; commitments made; the policies adopted; likely future developments; and, observations on potential actuarial implications. While decarbonization will increasingly affect every economy and will transform how and what goods are produced and services are provided, the timing and progress of change is highly uncertain.



# ACTIVITIES

In order to encourage actuarial research and development in particular areas of practice, and provide suitable international forums for discussion among individual actuaries, the IAA has seven specialized Sections: AFIR-ERM, ASTIN, AWB, IAAHS, IAALS, IACA and PBSS.

## AFIR-ERM (Actuarial Approach for Financial Risks/Enterprise Risk Management)



Chair: Michael Sherris

AFIR/ERM has as its primary objective the promotion of actuarial research and knowledge dissemination in actuarial and broader aspects of finance, investment and ERM, to push forward the boundaries of actuarial knowledge and promote and facilitate an international exchange of views, advice, research and practical information among actuaries and other relevant experts.

Activities in 2018:

- Awarded 2017 Bob Alting Von Geusau Prize for “Probability of Sufficiency of Solvency II Reserve Risk Margins: Practical Approximations” by Eric Dal Moro and Yuriy Krvavych
- AFIR-ERM Best Paper Award 2018 – “An Analysis of the Solvency II Regulatory Framwork’s Smith Wilson Model for the Term Structure of Risk Free Interest Rates” by Peter Løtche Jørgensen (Denmark)
- Held a Joint Seminar along with ASTIN/AFIR-ERM, Mexico City, November 2018
- Issued 12 editions of Reference Lists
- Hosted two webinars:
  - Valuation of Large Variable Annuity Portfolios: Monte Carlo Simulation and Synthetic Dataset – Panellists: Emiliano Valdez and Guojun Gan
  - Low Investment Returns and the Expected Impact on Retirement Provision – Panellist: Alfred Gohdes

## ASTIN (Actuarial STudies In Non-life Insurance)



Chair: Frank Cuypers

ASTIN’s mission is to generate value for our members, risk and actuarial professionals working in the non-life insurance industry. This is achieved by helping them develop their professional skills, and also by engaging with academia and industry to drive innovation and promote meaningful, quality research in the field of non-life insurance economics and mathematics, and their applications to quantitative risk management.

As a well-established global professional forum, we draw upon the values of the ASTIN brand. Our intellectual base and wealth of knowledge have been developed across decades, and have resulted in ground-breaking research. In our quest for excellence, we consistently demonstrate an uncompromising pursuit of knowledge and understanding.

Activities in 2018:

- Hosted webinars covering:
  - Results of the ASTIN Working Party on the Exposure Draft of the Risk Adjustment Text Book
  - Synergy Between Machine Learning and Traditional Methods in Non-Life Reserving
  - Big Data Working Party II
- ASTIN Working Party: Individual Claim Development with Machine Learning
- ASTIN Best Paper Awards
  - “The Transition Towards Semi-Autonomous Vehicle Insurance: The Contribution of Usage-Based Data” By Monserrat Guillen and Ana M. Pérez Marín
  - “The impact of Insurance Premium Taxation” by Anna-Maria Hamm, Moritz Hildebrandt and Stefan Weber
- Grants and Bursaries
  - Salma Jamal (France) – AWP Machine Learning and Traditional Methods Synergy in Non-Life Reserving
  - Lorenzo Invernizzi (Italy) – AWP Machine Learning and Traditional Methods Synergy in Non-Life Reserving
  - Rasa Varanka McKean (USA) – AWP Agent Based Models, Networks and Cellular Automata in Risk Management
- Held two Seminars in Mexico City, Mexico and Kingston, Jamaica
- Produced the report of the ASTIN Working Party on the ED on Risk Adjustment for IFRS X with case studies and Machine Learning Traditional Methods Synergy in Non-Life Reserving
- Published Newsletters from June-December 2018
- Published an Annual Report



## AWB (Actuaries Without Borders)



*Chair: Doug Carey*

AWB's mission is to promote the public good globally, focusing on countries that lack the actuarial resources needed to create productive, sustainable and stable markets for insurance and other risk mitigation and the means to develop the actuarial profession, adhering to a Strategic Objective of the IAA to support the development, organization and promotion of the profession in areas of the world in which it is not present or is not fully developed.

Activities in 2018: please refer to the Promotion of the Profession section of this Annual Report (see page 14).

## IAAHS (IAA Health Section)



*Chair: Adrian Baskir (outgoing: April Choi)*

The Health Section facilitates exchange of knowledge and information among actuaries involved with public and private health issues, and promotes cooperation among actuarial organizations around the world, to advance international developments in health systems and programs. The Section provides its members with an international forum for knowledge sharing, professional development and networking through in person colloquia, webinars and other online resources.

Activities in 2018:

- Best Paper Award: "Demand for Annuities and Long-Term Care Insurance with Recursive Utility: Impact of Housing" By Mengyi Xu, Jennifer Alonso Garcia, Adam W. Shao & Michael Sherris Research (CEPAR) UNSW Sydney, Australia.
- Hosted webinars on:
  - Omics and the Personalized Medicine Revolution
  - Private and Public Health Structures around the Globe: Brazil and Australia
  - Wearables, The Internet of Things and Health Insurance
  - Big Data, Analytics, Machine Learning and Health Insurance.
- Current eight Topic Teams: Comparative Health System, Health Risk Capital and Risk Management, Long Term Care, Public Private, Medical Expense, Microinsurance for Health, Risk Adjustment, Technology / Big Data.

## IAALS (IAA Life Section)



*Chair: Gunn Albertsen (outgoing: Marc Slutzky)*

The Life Section's mission is to promote actuarial research and the exchange of knowledge in the field of life insurance around the world.

Activities in 2018:

- Best Paper Awards
  - Extension, Compression and Beyond. A Unique Classification System for Mortality Evolution Patterns. By Martin Genz (Germany)
  - Impacts of Management Actions in Life Insurance by Estelle Gerondeau (France)

## IACA (International Association of Consulting Actuaries)



*Chair: Gerd Warnke (outgoing: Catherine Lyn)*

IACA promotes and facilitates the sharing of ideas among international consulting actuaries.

Activities in 2018:

- Max Lander Award – Daisy May McFarlane Coke (Jamaica)
- The Geoffrey Heywood Award – Sherry Chan (USA)
- Best Paper Award: Integrated Risk Management in Practice by Marian Elliot
- As a benefit to IACA members, IACA purchased a subscription from a tender warehouse company that prepared weekly Newsletters of procurement opportunities for consulting actuaries around the world.
- Published opportunities from August to November
- Published IACA's Newsletter August 2018



## PBSS (Pensions, Benefits and Social Security)



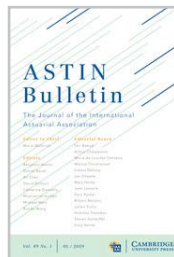
*Chair: Abraham Hernández Pacheco*

PBSS serves actuaries around the world with personal, professional, educational or research interests in social protection, as well as actuaries with interests in the commercial, social and public policy issues concerning the provision of pensions and other benefits. Its scope covers public programs and private pension plans, mutual benefit organizations, commercial insurance and pension company contracts, annuities, share options and other types of employee benefit provision.

Activities in 2018:

- Best Paper Award: Low Investment Returns, and the Expected Impact on Retirement Savings by Alfred Gohdes
- Produced monthly Reference List from January – December 2018
- Hosted webinars on:
  - Forging a New Solid Social Security System for Greece: The NTS Proposal
  - Mortality: The Current, The Future and The Drivers
  - Defined Benefit Pension Plan and the Role of Actuaries
  - Retirement Consumption, Risk Perception, and Planning Objectives of Canadian Retirees and Pre-Retirees
    - Low Investment Returns and The Expected Impact on the Retirement Provision
    - Cohorting DC members for ALM-based Investment Strategies

## ASTIN Bulletin



The ASTIN, AFIR/ERM, LIFE and PBSS Sections cosponsor the ASTIN Bulletin – The Journal of the IAA. It is published by Cambridge University Press in print and online in January, May and September. A total of 45 articles were published in 2018.



A key highlight for the actuarial profession in 2018 was the 31<sup>st</sup> International Congress of Actuaries (ICA 2018), held in Berlin, Germany, from 4-8 June 2018, 50 years after the last ICA in Germany. The theme of ICA 2018 was “Getting Closer”, and all features of the Congress were designed to give participants, both physically in attendance and remotely, the ability to do exactly that.

Under the leadership of Klaus Heubeck and Kurt Wolfsdorf, the Congress enjoyed the largest attendance in ICA history, with 2,750 delegates and accompanying persons from 102 countries. Among the participants, 103 representing 54 countries, were recipients of bursaries made available through the generous contributions of a number of actuarial associations, IAA Sections, the Actuaries for Actuaries campaign and individual actuaries.

Michael Renz and Hans-Joachim Zwiesler, chairs of the Scientific Committee, lead the programme development and identified the tracks and the relevant subjects for an enriching five-day professional program. For the first time ever, sessions were also live streamed and recorded for later playback via the Virtual ICA (VICA) allowing selected IAA section members, universities, and other partners to watch two thirds of the program remotely. Additionally, attendees were encouraged to interact with exhibitors and join limited-attendance workshops and field trips. Video highlights from ICA 2018 are available online.

Delegates enjoyed an extensive social programme that provided them with excellent opportunities for networking, increasing their social interaction and providing enjoyment with the host city. These activities included the welcome reception at the Natural History Museum, a garden party in the Estrel Hotel's Summer Garden and a traditional funfair at the farewell event.

Join us in Sydney, Australia, for ICA 2022!



**BRIDGE TO TOMORROW**  
**2022 INTERNATIONAL**  
**CONGRESS OF ACTUARIES**  
4-8 APRIL 2022 • SYDNEY



# EVENTS

## PROFESSIONAL PROGRAM HIGHLIGHTS

**240**

HOURS OF PROFESSIONAL  
CONTENT

**574**

SUBMITTED ABSTRACTS

**5**

PLENARY SESSIONS

**260**

CONTRIBUTED TALKS

**500**

SPEAKERS AND MODERATORS

FROM

**40**

COUNTRIES

**20+**

AWARDS



# HOW WE OPERATE

## MEET THE EXECUTIVE COMMITTEE



**MASAAKI  
YOSHIMURA**  
PRESIDENT



**TOM  
TERRY**  
IMMEDIATE  
PAST  
PRESIDENT



**GÁBOR  
HANÁK**  
PRESIDENT-  
ELECT



**CATHY  
LYN**



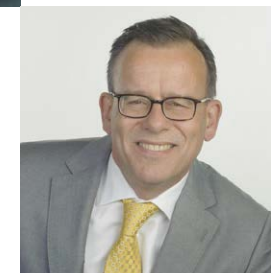
**RÉGIS  
DE  
LAROULLIÈRE**



**ROSEANNE  
MURPHY  
HARRIS**



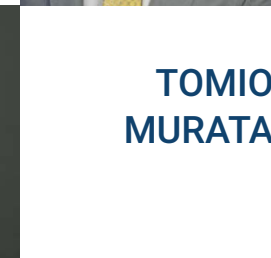
**CHARLES  
COWLING**



**JAN  
KARS**



**MICHELINE  
DIONNE**



**TOMIO  
MURATA**



**JERRY  
BROWN**



**JAN  
KARS**



**TOMIO  
MURATA**



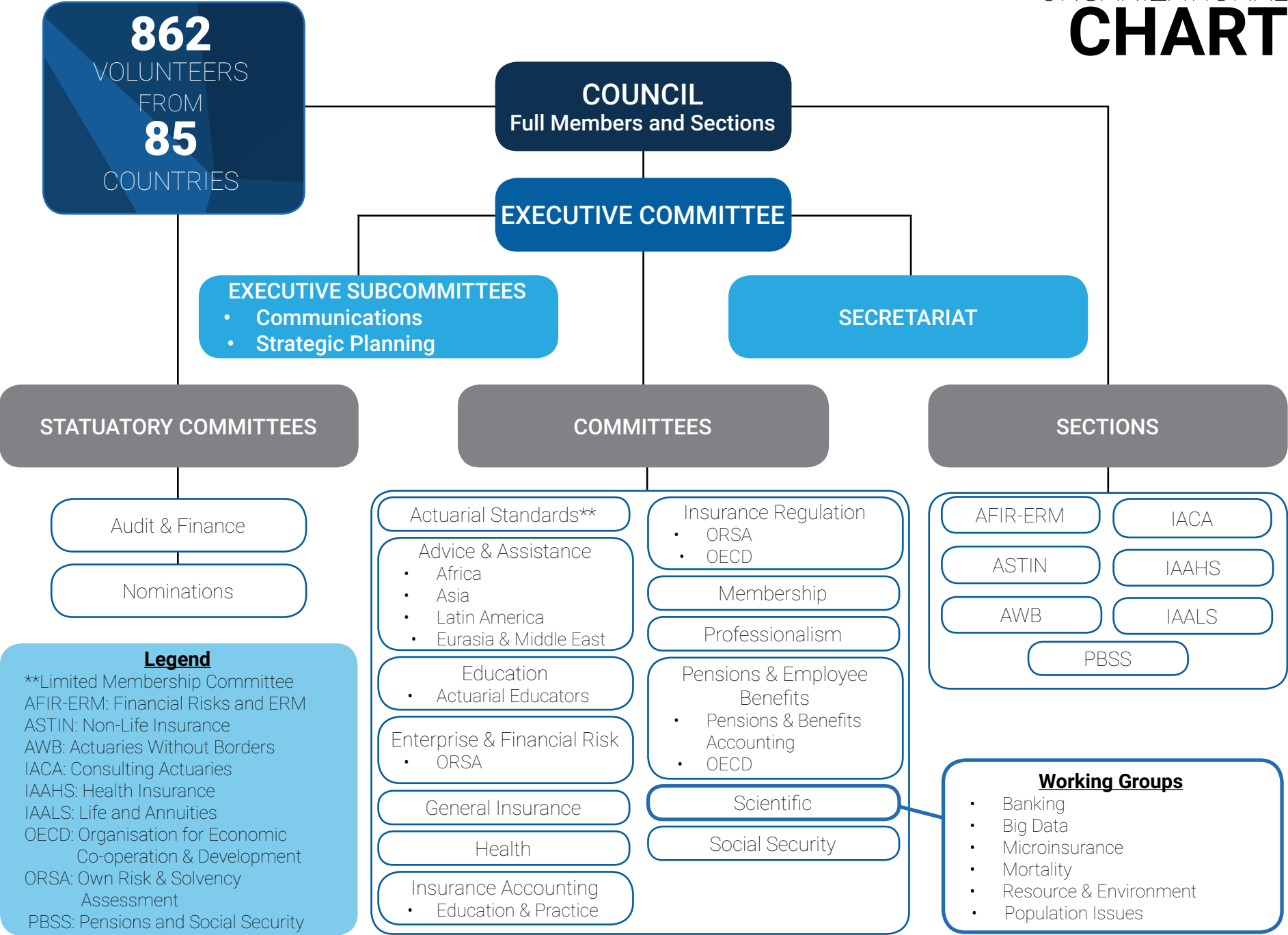
COMMITTEE  
CHAIRS

<b>GODFREY PERROTT</b> ACTUARIAL STANDARDS		<b>DARRYL WAGNER</b> ADVICE AND ASSISTANCE		<b>CECIL BYKERK</b> AUDIT AND FINANCE	
	<b>BOZENNA HINTON</b> EDUCATION		<b>RÉJEAN BESNER</b> ENTERPRISE AND FINANCIAL RISK		<b>ROBERT CONGER</b> GENERAL INSURANCE
<b>CHRISTELLE DIEUDONNÉ</b> HEALTH		<b>WILLIAM HINES</b> INSURANCE ACCOUNTING		<b>DAVID SANDBERG</b> INSURANCE REGULATION	
	<b>MICHAEL McDOUGALL</b> MEMBERSHIP		<b>TOM TERRY</b> NOMINATIONS		<b>YAS FUJII</b> PENSIONS AND EMPLOYEE BENEFITS
<b>DAVID MARTIN</b> PROFESSIONALISM		<b>THOMAS BÉHAR</b> SCIENTIFIC		<b>BARBARA D'AMBROGIOLA</b> SOCIAL SECURITY	

<b>MICHAEL TICHAREVA</b> BANKING		<b>ASHLEY THEOPHANIDES</b> BIG DATA		<b>NIGEL BOWMAN</b> MICRO-INSURANCE	
	<b>BRIAN RIDSDALE</b> MORTALITY		<b>ASSIA BILLIG</b> POPULATION ISSUES		<b>KENNETH DONALDSON</b> RESOURCE AND ENVIRONMENT

WORKING GROUP  
CHAIRS

ORGANIZATIONAL  
CHART





OUR

# MEMBERSHIP

FULL

## MEMBERS

	Asociación Centroamericana de Actuarios (ACEA)
	Caribbean Actuarial Association
ARGENTINA	Consejo Profesional de Ciencias Económicas de la Ciudad Autónoma de Buenos Aires
AUSTRALIA	Actuaries Institute Australia
AUSTRIA	Aktuarvereinigung Österreichs (AVÖ)
BELGIUM	Institut des Actuairens en Belgique
BOSNIA AND HERZEGOVINA	Aktuarsko Društvo U Bosni I Hercegovini
BRAZIL	Instituto Brasileiro de Atuária (IBA)
BULGARIA	Bulgarian Actuarial Society
CANADA	Canadian Institute of Actuaries
CHINA	China Association of Actuaries
CHINESE TAIPEI	Actuarial Institute of Chinese Taipei
COLOMBIA	Asociación Colombiana de Actuarios
CÔTE D'IVOIRE	Institut des Actuairens de Côte D'Ivoire
CROATIA	Hrvatsko Aktuarsko Društvo
CYPRUS	Cyprus Association of Actuaries
CZECH REPUBLIC	Ceská Společnost Aktuárů
DENMARK	Den Danske Aktuarforening
EGYPT	Egyptian Society of Actuaries
ESTONIA	Eesti Aktuaaride Liit
FINLAND	Suomen Aktuaariyhdistys
FRANCE	Institut des Actuairens
GERMANY	Deutsche Aktuarvereinigung e. V. (DAV)
GHANA	Actuarial Society of Ghana
GREECE	Hellenic Actuarial Society
HONG KONG	Actuarial Society of Hong Kong
HUNGARY	Magyar Aktuárius Társaság
ICELAND	Félag Íslenskra Tryggingastaerðfræðinga
INDIA	Institute of Actuaries of India
INDONESIA	Persatuan Aktuaris Indonesia

IRELAND	Society of Actuaries in Ireland
ISRAEL	Israel Association of Actuaries
ITALY	Istituto Italiano degli Attuari and Ordine degli Attuari
JAPAN	Institute of Actuaries of Japan
JAPAN	Japanese Society of Certified Pension Actuaries
KAZAKHSTAN	Actuarial Society of Kazakhstan
KENYA	The Actuarial Society of Kenya
LATVIA	Latvijas Aktuaru Asociacija
LEBANON	Lebanese Association of Actuaries
LITHUANIA	Lietuvos Aktuaru Draugija
MACEDONIA	Macedonian Actuarial Association
MALAYSIA	Persatuan Aktuari Malaysia
MEXICO	Colegio Nacional de Actuarios A. C.
MOROCCO	Association Marocaine des Actuairens
NETHERLANDS	Het Koninklijk Actuariel Genootschap
NEW ZEALAND	New Zealand Society of Actuaries
NIGERIA	Nigeria Actuarial Society
NORWAY	Den Norske Aktuarforening
PAKISTAN	Pakistan Society of Actuaries
PHILIPPINES	Actuarial Society of the Philippines
POLAND	Polskie Stowarzyszenie Aktuariuszys
PORTUGAL	Instituto dos Actuários Portugueses
ROMANIA	Asociatia Romana de Actuariat
RUSSIA	Russian Guild of Actuaries
SERBIA	Udruzene Aktuara Srbije
SINGAPORE	Singapore Actuarial Society
SLOVAKIA	Slovenska Spolocnost Aktuarov
SLOVENIA	Slovensko Aktuarsko Društvo
SOUTH AFRICA	Actuarial Society of South Africa
SOUTH KOREA	Institute of Actuaries of Korea
SPAIN	Col.legi d'Actuaris de Catalunya

SPAIN	Instituto de Actuarios Españoles
SRI LANKA	Actuarial Association of Sri Lanka
SWEDEN	Svenska Aktuarieföreningen
SWITZERLAND	Association Suisse des Actuairens
THAILAND	Society of Actuaries of Thailand
TURKEY	Actuarial Society of Turkey
UNITED KINGDOM	Association of Consulting Actuaries Limited
UNITED KINGDOM	Institute and Faculty of Actuaries
UNITED STATES	American Academy of Actuaries
UNITED STATES	ASPPA College of Pension Actuaries
UNITED STATES	Casualty Actuarial Society
UNITED STATES	Conference of Consulting Actuaries
UNITED STATES	Society of Actuaries

ASSOCIATE

## MEMBERS

	Channel Islands Actuarial Association
ALBANIA	Albanian Actuarial Association
ARGENTINA	Instituto Actuarial Argentino
ARMENIA	Actuarial Society of Armenia
AZERBAIJAN	Actuarial Association of Azerbaijan
BANGLADESH	Actuarial Society of Bangladesh
BENIN	Association des Actuairens Beninois
BOSNIA AND HERZEGOVINA	Actuarial Association of the Republic of Srpska
CHILE	Instituto de Actuarios Matemáticos de Chile
ECUADOR	Ecuadorian Actuarial Association
GEORGIA	Association of Actuaries and Financial Analysts
IRAN	Actuarial Society of Iran (ASI)
LUXEMBOURG	Association Luxembourgeoise des Actuairens
MEXICO	Asociacion Mexicana de Actuarios, A.C.
MOLDOVA	Asociatia de Actuariat Din Moldova
MONGOLIA	The Society of Actuaries of Mongolia
NAMIBIA	Society of Actuaries of Namibia
PANAMA	Asociación de Actuarios de Panamá
RUSSIA	Association of Professional Actuaries
SENEGAL	Institut National des Actuairens Au Sénégal
TANZANIA	Actuarial Society of Tanzania
TOGO	Association Actuarielle au Togo
UGANDA	The Actuarial Association of Uganda
UKRAINE	Society of Actuaries of Ukraine
ZAMBIA	Actuarial Society of Zambia
ZIMBABWE	Actuarial Society of Zimbabwe

ASSOCIATE MEMBERS, PARTNERS,  
OBSERVERS AND  
PATRONS

## PARTNERS

SEE SECTION ON INTERNATIONAL COOPERATION

## OBSERVERS



OUR

## PATRONS

### GOLD



### SILVER



### BRONZE



AUDIT UPDATE AND

# FINANCIAL REVIEW

The year 2018 was a membership fee transition year, led by the Fee Task Force, which resulted in a new IAA fee basis that will be effective in 2019. While membership fees were down 6.6% over 2017, operating revenues increased by 10% overall as there were increases in publication sales, Section sponsorship and bursary funds. The IAA operated with a deficit of approximately \$289,000 CAD in 2018 (deficit of \$104,000 when excluding IAA Sections). This deficit was much lower than originally anticipated due to continued expense reduction efforts.

As 2018 was an IAA Congress year, we saw a large influx of funds received and expensed from the Bursary Fund for ICA 2018. These funds allowed over 100 aspiring actuaries to attend the event. The expense increase of 18% reflects the bursary funding, other costs associated with ICA 2018, the support of new, live event, video capabilities and the implementation of iMIS, a new Information Technology platform that will serve the IAA well into the future. Overall, Section membership increased slightly with four of the seven IAA Sections reporting an increase in membership. Excluding IAA Sections, the IAA’s financial position had a reduction in unrestricted net assets to \$542,000 from \$646,200 in 2017.

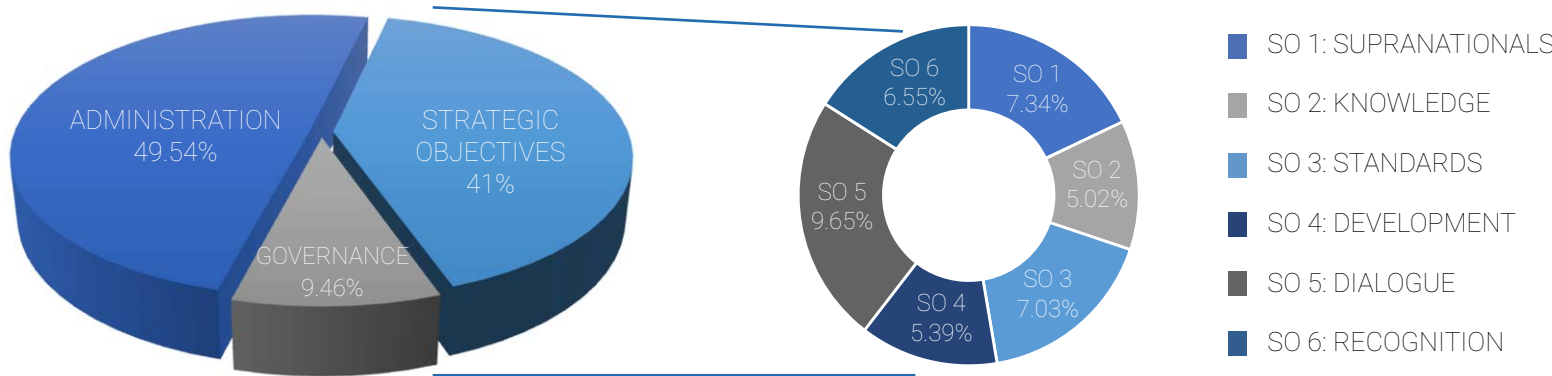
We look forward to the continued support of our Full Member Associations, Observers and Patrons in order to ensure stable and proper financing for the IAA’s operations and to our unallocated reserves (the reserve fund) in support of the growth of the profession across the world.

Thank you to Cecil Bykerk and Carol Ann Banks for their hard work and dedication on financial matters that resulted in an audit without any reservations (commonly referred to as a “clean audit”) from the external Auditors.

  
Masaaki Yoshimura, 2018 IAA President

  
Mathieu Langelier, Executive Director

2018 EXPENSES BY CATEGORY (EXCLUDING IAA SECTIONS)



(In thousands of Canadian dollars, at December 31)	2018			2017		
	IAA Operations	IAA Sections	Total	IAA Operations	IAA Sections	Total
<b>STATEMENT OF FINANCIAL POSITION</b>						
<b>Current assets</b>						
Cash	\$ 182	\$ 82	\$ 264	\$ 46	\$ 78	\$ 124
Short-term investments	223	266	489	88	1,370	1,458
Accounts receivable, inventory and prepaid expenses	195	33	228	156	19	175
	600	381	981	290	1,467	1,757
<b>Investments</b>	223	1,556	1,779	970	692	1,662
<b>Tangible capital assets</b>	204	66	270	60	0	60
	\$ 1,027	\$ 2,003	\$ 3,030	\$ 1,320	\$ 2,159	\$ 3,479
<b>Current liabilities</b>						
Accounts payable and accrued liabilities	\$ 181	\$ 35	\$ 216	\$ 143	\$ 10	\$ 153
Deferred revenue	78	11	89	22	7	29
	259	46	305	165	17	182
<b>Contributions held for Funds and Monographs</b>	53	5	58	282	5	287
<b>Contributions held from ICA 2014 Surplus</b>	173	0	173	227	0	227
<b>Net Assets - unrestricted</b>	542	1,952	2,494	646	2,137	2,783
	\$ 1,027	\$ 2,003	\$ 3,030	\$ 1,320	\$ 2,159	\$ 3,479
<b>STATEMENT OF REVENUE, EXPENSES AND NET ASSETS</b>						
<b>Revenue</b>						
Memberships	\$ 1,770	\$ 266	\$ 2,036	\$ 1,917	\$ 263	\$ 2,180
Other revenue	83	46	129	69	33	102
Income for Funds and Monographs	397	9	406	53	2	55
	2,250	321	2,571	2,039	298	2,337
<b>Expenses</b>						
Committee and representation expenses	\$ 143	\$ 0	\$ 143	\$ 170	\$ 0	\$ 170
Operating costs	397	319	716	329	149	478
Statutory meetings	379	0	379	500	0	500
Support staff	1,162	0	1,162	1,137	0	1,137
Expenses for Funds and Monographs	381	0	381	69	0	69
	2,462	319	2,781	2,205	149	2,354
Excess (deficiency) of revenue over expenses from operations	(212)	2	(210)	(166)	149	(17)
Section administration recoveries (expenses)	134	(134)	0	126	(126)	0
Unrealized gain (loss) on investments	(26)	(53)	(79)	19	(14)	5
<b>Excess (deficiency) of revenues over expenses</b>	(104)	(185)	(289)	(21)	9	(12)
<b>Net Assets, unrestricted, beginning of year</b>	646	2,137	2,783	667	2,128	2,795
<b>Net Assets, unrestricted, end of year</b>	\$ 542	\$ 1,952	\$ 2,494	\$ 646	\$ 2,137	\$ 2,783

Summarized from the audited financial statements available at [www.actuaries.org](http://www.actuaries.org)





International Actuarial Association  
Association Actuarielle Internationale

# ANNUAL REPORT 2018

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