Statistical Society of Australia

STATS MATTERS & EVENTS

21 September 2023

The *Pathway to Diversity in STEM Review* is an Australian Government initiative aimed at improving diversity within the fields of science, technology, engineering and mathematics (STEM) in Australia.

The review is driven by the recognition that diversity in STEM is essential for fostering different perspectives, experiences and innovative thinking processes. It's part of broader efforts to ensure that STEM fields in Australia are more inclusive and accessible to individuals from all backgrounds.

Australia is not alone in its need to address diversity and inclusivity within the workforce. A recent article "Equal pay for work of equal value – where do we stand in 2023?" (by Souleima El Achkar) for the International Labour Organization (ILOSTAT) highlights the persistence of gender pay gaps globally.

They remain, in some cases even widening in certain professions, often not related to differences in educational achievement. Women hold fewer senior and middle management positions in over half of the world's countries. Factors contributing to gender pay gaps include occupational segregation, disruptions due to motherhood, uneven family responsibilities and unfair pay practices.

Worldwide, gender pay gaps exist in most professional fields, including high-skilled and STEM occupations. Gender pay gap magnitudes vary by region, with Europe and Central Asia having less significant gaps. See the full article [here](#) to find some eye-opening statistics.

The ILOSTAT article emphasises the need for proactive measures to address gender pay gaps. These include promoting women's workforce participation, reducing occupational segregation, increasing women's leadership roles in STEM, addressing discriminatory practices and ensuring pay transparency and equity.

Earlier this week, Science & Technology Australia (STA) announced in a [media release](#) that it had made a submission to the *Pathway to Diversity in STEM Review*, proposing the introduction of a tax incentive for companies meeting specific staff diversity criteria. This groundbreaking suggestion could be just the ticket to accelerate progress towards a more equitable workforce in Australia.

STA suggests expanding the responsibilities of the Workplace Gender Equality Agency to collect data on workforce diversity, going beyond gender. Under this proposal, large companies that meet specific diversity thresholds would qualify for a tax incentive. The idea is simple yet powerful: provide financial motivation for major employers to actively promote workforce diversity, thus fostering greater equality across the board.

Everyone would benefit.

[Marie-Louise Rankin](#)
Executive Officer

You can read the full STA submission to the Pathways to Diversity in STEM Review draft [here](#).

Read newsletter in your [browser](#)

In this newsletter:

[Revamping Peer Review: The Case for Transparency and Statistical Oversight](#)

[Data Heroes and the AI Frontier: UK Cabinet Secretary Simon Case Charts the Future of Public Service](#)

[Shape the Future of Data Analytics in Australia: Participate in the 2023 IAPA](#)

Revamping Peer Review: The Case for Transparency and Statistical Oversight

In her article published on the website of the American Council on Science and Health, Katie Suleta, regional director of research in graduate medical education for HCA Healthcare, discusses the challenges and potential improvements in the peer-review system for scientific research. She focuses on two main areas: making data available to reviewers and having data reviewed by a statistician.

Suleta argues that while authors are required to submit manuscripts, affiliations, and conflict-of-interest statements, they are rarely required to submit the raw data underlying their studies. She suggests that requiring authors to submit their final raw datasets could improve transparency and due diligence without being overly burdensome.

Suleta also advocates for the review of data by statisticians to prevent misconduct and errors like p-hacking and underpowered studies. She notes that most journals currently rely on subject-matter experts who may lack specialised statistical training.

She acknowledges the challenges in implementing these changes, such as the voluntary nature of peer-review, the limited number of statisticians available and the need for secure servers to handle and protect data.

Suleta concludes that these proposed changes would have the potential to significantly improve the peer-review process by increasing transparency and rigour, thus enhancing the integrity of published research.

Read Katie Suleta's full article [here](#).

Data Heroes and the AI Frontier: UK Cabinet Secretary Simon Case Charts the Future of Public Service

When speaking last week at the government data conference "Public Service Data Live", UK's cabinet secretary Simon Case praised the vital role that statisticians and data professionals played during the COVID-19 pandemic. Matt Ross, a freelance journalist and editor from the UK, wrote about on the event for the website "Global Government Forum". He reports Case mentioning that the pandemic accelerated the use of data in decision-making at the highest levels of government. Case assured that this transformation is here to stay, with no "danger of roll-back," and announced a civil service-wide staff development program called "The One Big Thing," which mandates a day's worth of data training for every civil servant.

Case also discussed the growing importance of Artificial Intelligence (AI) in the public service. While acknowledging AI's potential to improve public wellbeing, he stressed the need for safeguards to manage risks, especially to prevent biased or discriminatory outcomes. He stressed that public consent and international cooperation are essential in setting these "guardrails." Case warned that failure to address these issues could result in a loss of public trust and even societal upheaval, being quoted to say: "We have to be very, very, very conscious of how we take the whole of society with us in these technology changes, because if you don't, if you leave a very significant proportion of society behind, I mean… that's how revolutions start."

Read the full article [here](#).

UNLOCK HALF PRICE SSA MEMBERSHIPS WITH YOUR ABS EMAIL ADDRESS!!

Are you part of the Australian Bureau of Statistics (ABS) team? We've got great news for you! As part of our Strategic Partnership with the ABS, SSA is offering half-price full memberships to ABS staff signing up as a new member or renewing their membership with SSA.

Get access to a world of statistical knowledge and professional networking. Simply sign up with your ABS email address to claim your membership.

Join us today! *

SIGN UP NOW

LET'S DO IT

*SORRY, NO REFUNDS FOR EXISTING MEMBERSHIPS, BUT YOU CAN CHANGE YOUR MEMBERSHIP TYPE TO TAKE ADVANTAGE OF THE NEW CATEGRORY WHEN YOU RENEW NEXT TIME.

Not with the ABS, but looking for a similar deal for your staff?
Contact the SSA to start the conversation.

Shape the Future of Data Analytics in Australia: Participate in the 2023 IAPA Skills & Salary Survey Now

There was a problem with the link we provided last week. The link below should work this time.

The Institute of Analytics Professionals of Australia (IAPA) is calling on Australian data analytics professionals to play their part and complete its 2023 IAPA Skills & Salary Survey.

This important survey shines the spotlight on modern data analytics professionals by exploring the technical and soft skills in demand, platforms increasingly being adopted, priorities of the role, team structures, alignment to other cross-functional functions and more. The survey is also a critical information source for how IAPA, as the largest analytics community in Australia, supports and serves its members.

Help IAPA by having your say in the 2023 edition of the IAPA Skills & Salary Survey and click through the link below.

[Start survey here](#)

The survey should take about 10 minutes to complete. Those who choose will then go in the prize draw to win one of five $200 gift tokens (terms and conditions here). Responses must be in by 29 September 2023.

Mentioned in previous newsletters:

Nurture your statistical career – Join SSA's 2024 Mentoring Program

Applications will open on 2nd October and close on 30 October. The application form will be available from 2nd October on the [SSA Mentoring website](#).

SSA Events

NSW Branch of SSA: Early Career and Student Statisticians Career Event 2023

28 Sep 2023, 6:00 PM – 8:00 PM (AEST), The Bevery, the University of Sydney

The Statistical Society of Australia's New South Wales branch cordially invites all undergraduate, postgraduate, and early-career statisticians and data scientists to our Annual Event for Early Career and Student Statisticians! This event is one you absolutely can't miss.

Why Attend?

- Inspiring Speakers: We've gathered a lineup of inspiring early-career and mid-career professionals from diverse industries. They'll share their journeys, achievements, surprises, and advice.
- Networking: Engage with like-minded peers and our esteemed speakers during the networking session.

- Catering and Drinks: Enjoy delicious refreshments on us!

Meet Our Speakers:

    Dr. Kerry Roberts - AMP Bank
    Olga Yevtushenko - SEEK
    Dr. William Tong - Canva
    Dr. Chen Chen - NSW Education Standards Authority
    Dr. Marcel Keller - CSIRO's Data61
    Jordan Hedi - NSW Ministry of Health

Admission: Free for SSA members; $20 for non-members (students can register for a one-year student membership for $20 and attend for free).

Questions? Contact secretary.nswbranch@statsoc.org.au.

To register click here.

Statistical Consulting Network Monthly Meet-Up

29 September 2023, 12:30 PM – 1:30 PM AEST, held online

Come along with your thinking cap, maybe a problem, and some lunch!

The Statistical Consulting Network invites you to their monthly meet-up, a virtual lunchtime meeting where statisticians help each other out with problems that they aren't sure how to deal with. This virtual meeting is held on Zoom at lunchtime on the last Friday of each month, 12:30-1:30 PM (AEDT). We start each meet-up with announcements, or occasionally a special topic discussion, then discuss problems that attendees have brought along with them.

We also have a Slack workspace where members of the consulting network can communicate between meetings, or post problems or relevant materials they would like to discuss during a meeting.

Zoom link

Password: 660145

Slack Workspace link

SSA Vic & Tas Belz Lecture - Mathematics, Gender and Statistics

Join us for the SSA Vic & Tas branch's annual Belz Lecture, where we'll hear from Professor Inge Koch in her talk titled "Mathematics, Gender and Statistics". Following the talk in-person attendees are invited to join us for dinner to be held at University House The Woodward

Tuesday 17th October, 5:45pm - 7:15pm AEDT, The University of Melbourne or online via Zoom

Registration

followed by the

SSA Vic & Tas Belz Lecture Dinner

The Victorian and Tasmanian Branch of the Statistical Society of Australia warmly invites members and guests our to premier social event of the year, the Belz Dinner. The Belz Dinner will be held at University House at the Woodward from 7:30PM. Join us for a three-course dinner and beautiful views.

Tuesday 17th October, The Woodward, University House, The University of Melbourne

Registration

ECSSN and NZSA October Webinar: An academic journey in pursuing the art of statistics - Dr Emi Tanaka

26 Oct 2023, 3:00 PM (AEDT), online

Statistics can be considered both an art and a science.

The science of statistics is concerned with the mathematical, computational, or formal methods to abstract procedures or proofs related to extracting targeted information from theoretical or empirical data. This scientific approach is characterised by rigour, precision and exactness, ensuring that statistical analyses and conclusions are based on sound principles and valid methodologies.

The art of statistics involves the creative and interpretive elements of working with data. It includes the human judgement, intuition and understanding in the statistical process or communication that ultimately feeds in as input for conducting the "science". Concrete examples include making (informed) decisions for data pre-processing, defining data structure for study designs, and interpretation of the statistical results.

In practice, we require both the art and science of statistics to be effective.

However, research and teaching of statistics is skewed towards the science, and there is little formal or systematic training for the art of statistics. In this talk, Emi will share her academic journey and demonstrate some of her research that leans towards the art of statistics through reforming the approach to statistical software as cognitive tools that enable the science.

To register click here.

Places are filling up fast in our pre-conference workshops held in Wollongong on 10 December 2023:

- Statistical Communication - This workshop if now full.

  [Statistical Consultancy – The Essentials for Getting Started and Ongoing Success](#) Presented by Professor Julie Simpson, University of Melbourne, A/Professor Emily Karahalios, University of Melbourne and A/Professor Karen Lamb, University of Melbourne, A/Prof Sue Finch from The University of Melbourne and

- [Deep Statistics for More Rigorous and Efficient Data Science](#) presented by Professor Xiao-Li Meng, Harvard University - only 1 place left!

[Australian Statistical Conference (ASC) and Australian Conference on Teaching Statistics (OZCOTS)](#)

ASC and OZCOTS 2023 Social Events

Early Career and Student Statisticians Network ASC Social on 12 December 2023, held at the Illawarra Brewery's outdoor terrace at WINN stadium. The ECSSN is organising a social get-together during the ASC2023! They are inviting students, early career and more senior statisticians to join them a lovely beach view and network with like-minded people you might not see very often, plus have some fun, nibbles, and drinks!

Statistical Conference Dinner on 13 Dec 2023, at the Grand Ballroom at the Sage Hotel. Just minutes from the beach, come and join us for a three-course dinner. (You register on the same page as the conference registration page)

OZCOTS 2023 Social on 14 Dec 2023, at Lucia's by the Sea, next to the Novotel Hotel. The OZCOTS committee invites you to come and join them for a lovely meal and catch-up at a beautiful beach front venue.

Other events

It doesn't matter if we are taking the bus to school, driving to work or taking the train. Transport and all things related are a core topic in everyone's life, and Eurostat has a wide range of data on it, be it transport of goods and passengers, accidents in transport, or data on vehicle registrations and rail infrastructure.

If you are curious about how EU people and businesses move or you are interested in understanding this theme at a deeper level, join Eurostat for a webinar with experts from the transport statistics unit on 26 September, from 12.30 to 13.30 CEST.

Access the webinar here.

ACSPRI Courses

It may have been a while since you've taken a statistics course, or you need to learn new methods or software. The Australian Consortium for Social and Political Research Incorporated (ACSPRI) have a range of courses in quantitative and qualitative analysis to suit your skill level. They have a number of 2-3 day master-classes and workshops scheduled for the rest of 2023 and a

[2024 Summer Program](#) with longer, 5-day intensives.

Whether you need to learn a statistical procedure or how to run a focus group, ACSPRI can help!

All scheduled courses can be found on ACSPRI's **[events page](#)**.

Bayes on the Beach 2024

[2023 International Biometric Society Australasian Region conference,](#)
27 Nov 2023 – 1 Dec 2023, Bay of Islands, NZ

[AMSI Summer School](#)
8 January - 2 February 2023, Canberra

Current Vacancies in SSA's Career Centre

[0110379 Lecturer/Senior Lecturer (Teaching and Research) - Business Analytics](#)

New South Wales

The University of Sydney

Full time continuing teaching and research postJoin ...

[Statistical Consultants](#)

New South Wales

Stats Central UNSW

Work type:Full Time / Part Time Location:Sydney, ...

[Lecturer in Applied Statistics](#)

Western Australia

Curtin University

A new role for a statistician to teach data science ...

[Statistician](#)

New South Wales

Nursing Research Institute

Join a vibrant team of researchers and clinicians ...

[Senior Research Officer / Data Analyst - Inside Out Institute for Eating Disorders](#)

New South Wales

The University of Sydney

Part time (0.6FTE) / fixed term for 12 months ...

[Revenue Officer- DIRECT HIRE (12 Month Register)](#)

Multiple Locations (see description)

Internal Revenue Service

Duties WHAT IS THE DIVISION? SMALL BUSINESS ...

[Internal Revenue Agent (Examiner) - Direct Hire (12 Month Register)](#)

Multiple Locations (see description)

Internal Revenue Service

Duties WHAT ARE THE APPEALS (AP), LARGE BUSINESS ...

[View All Jobs](#)

If you have news from the Australian statistical community to share in Stats Matters and Events, please get in touch [with us](#)! We love getting feedback too.

[Unsubscribe](#)