From: Statistical Society of Australia

To: <u>Contact us</u>

Subject: Stats Matters & Events

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Advocacy in matters of public interest was one of the key themes that emerged in the SSA's consultations with members about our new Strategic Plan. In recent years, members have wanted the SSA to be more prominent about issues that have a statistical dimension. This applies to "slow burn" matters that can receive attention and comment in a measured and careful way, and "instant" issues where a response may be important in the immediate news cycle. Examples of such issues include developments in data science and artificial intelligence, statistical issues in COVID, the Robodebt scandal, probabilistic arguments in legal contexts, opinion polls and surveys more generally, and many more.

The <u>Strategic Plan</u> therefore identified, as one of the three main priorities, "Enhance the public profile of statistics and data science". A specific project arising from this priority is the creation of the Advocacy Working Group (AWG), with broad representation. The Group will "enable the SSA to react to public conversation strategically and swiftly, monitor public discussions, pinpoint opportunities for engagement, and assist in crafting responses."

The AWG has now been created and has met. There is no specific public comment being considered at present, but we have canvassed several

possibilities, and mechanisms for comment.

There are two recent advocacy issues that the SSA has contributed to. The Australian and New Zealand Standard Classification of Occupations (ANZSCO) has recently been revising their definitions of occupations. The SSA and the New Zealand Statistical Association were invited to comment on relevant classifications, including "statistician", "data scientist" and "data analyst". The submission that the two societies cooperatively developed was substantially adopted, leading to a much better definition of "statistician", than that proposed by ANZSCO.

More recently, a consortium of mathematical and statistical organisations, including the SSA, sponsored a <u>review into "out of field" teaching of mathematics in Australia</u>. The review focused on a positive action that can be taken, namely, the establishment of a major, national, well-funded and incentivised training program for existing out of field teachers in mathematics and statistics, so that they become "in field" teachers. The review has now been released and endorsed by many other bodies, giving leverage with decision-makers. With two co-authors, I wrote <u>an article in The Conversation</u> that reported on the review and publicised its recommendation.

There is a current <u>Senate Select Committee on Adopting Artificial Intelligence</u> (AI). The AWG is interested to hear from any members with strong interests in AI, who would be willing to draft a submission to this inquiry. It was announced on 26 March, and the deadline for submissions is 10 May, so the timeline is short. The AWG will work with you to make a submission on behalf of the SSA. If you have the expertise and knowledge to prepare a draft, feel free to write directly to me.

Further, this is a possible model for other issues: the AWG welcomes communication from members who believe that there's an issue where we should express our voice. We don't guarantee that we will always act, but your suggestions will certainly be considered.

Over time, we hope that the existence and activity of the AWG will generate a climate in which SSA commentary is more likely, more strategic, and has a positive impact on our nation.

lan Gordon SSA President

Read newsletter in your browser

In this newsletter:

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John Darroch

John Darroch died earlier this week, aged 93.

Professor Darroch was a major statistical figure in the Australian statistical community in the 20th century. He made important methodological contributions to several areas of statistics, including log-linear models, methods for efficient maximum likelihood estimation, and capture-recapture data. He was Head of Statistics at Flinders University, South Australia for 30 years, and was a valued and significant contributor to the life of the Statistical Society of Australia, serving a term as President. He was awarded the Society's Pitman Medal for 2005.

An appropriate obituary will be published in due course, by the History Standing Committee.

The Society expresses its condolences to his family and friends.

Ian Gordon President, SSA

A Rewarding Australian Statistical Conference Experience

I want to begin by expressing my gratitude to the Statistical Society of Australia (SSA) for awarding me the generous PhD Top-up Scholarship. This scholarship, along with support from the WA Branch which covered my early bird registration fee, enabled me to attend the Australian Statistical Conference and the Australian Conference on Teaching Statistics 2023 (ASC2023). The

SSA's backing has been invaluable in facilitating my growth as an early career statistician.

Attending ASC2023 was an enriching experience on multiple fronts. After years of virtual interactions during the pandemic, it was a thrill to finally meet in-person many colleagues whom I had previously only known through the sound of their voices on Zoom! The conference's setting on a university campus provided an intimate and conducive atmosphere for learning and networking.

The program was excellent, although the parallel arrangement of intriguing talks meant difficult choices had to be made. Nonetheless, the quick-fire poster sessions offered a glimpse into the remarkable diversity of work statisticians are involved in and the Horizon Lectures were a captivating introduction to the frontiers of statistical research. A particular highlight was Professor Spiegelhalter's insightful workshop on communicating statistics effectively, especially to the media.

Beyond the academic sessions, the conference offered numerous opportunities for fostering connections within the statistical community. The ECSSN social event allowed me to mingle with peers in a relaxed setting, while the Gala Dinner doubled as a celebration of my wedding anniversary with my wife. Throughout the event, I was struck by the welcoming and collegial atmosphere.

On a personal note, I had the privilege of presenting some preliminary findings from my PhD research. The questions and constructive suggestions from the audience have helped shape my ongoing work. Moreover, I was deeply honoured to be named the recipient of the prestigious EJG Pitman Prize, albeit humbled by the exceptional calibre of other early career presenters.

As the conference drew to a close, I left with a profound sense of belonging within the Australian statistical community and immense admiration for the rigour and diversity of the work being undertaken. The experience reinforced my passion for our field and my determination to contribute to its advancement.

In a light-hearted moment, I even repurposed one of my children's baby rattles as an impromptu timekeeper during a session – a testament to the resourcefulness that statisticians must occasionally employ!

Looking ahead, I eagerly anticipate hosting my colleagues in Perth for the next Australian Statistical

Conference in 2025. It will be a pleasure to reciprocate the warm hospitality I received in Wollongong and showcase the vibrant statistical scene in Western Australia.

by Shih Ching Fu

WA Branch



Would you like to receive a top-up scholarship? Find out how:

SSA PhD or Masters top-up scholarships 2024

SSA PhD Top-Up Scholarships: the SSA wants to support you!

Are you undertaking a PhD or Masters degree with a project in the development of statistical or data science methodology, in the assessment of statistical or data science methodology, or in the development of statistical/data science software?

The Statistical Society of Australia (SSA) wants to support you!

Up to 4 Scholarships, worth \$2500 each, will be awarded to SSA student members. Find out more about the eligibility criteria and find the application form here.

Application deadline: 12 May 2024

Game on for better grades - the power of play in mathematics and statistics education

New research suggests that games can enhance learning in math and statistics, often challenging subjects for many students. Professor of Behavioural Science at the University of Warwick, Warwick Business School, Joshua Fullard, led the study, finding that incorporating games into teaching significantly improved student achievement and satisfaction. In comparison to traditional lecturing, students who played games scored an average of 7%

higher on exams and experienced a lower failure rate, with only 7% failing compared to almost a fifth in the non-game group. The benefits of games were widespread, affecting students' grades, satisfaction and attendance. Despite time pressures, the research proposes simple, effective activities for educators to enhance learning without sacrificing teaching hours.

Read more.

SSA Career Centre

The SSA Career Centre is your go-to resource for career development and advancement.

Top professional employers turn to the SSA Career Centre to fill their niche roles with specialised talent - such as yourself.

As a job seeker on the SSA Career Centre you can:

- Browse jobs using robust filters to narrow your results to only those jobs matching your career requirements.
- Browse Jobs
- Upload your resume/CV so employers can contact you.
- Apply to top professional jobs at companies searching for candidates with your exact skill set.
- Create job alerts and receive an email each time a new job matching your criteria is posted.

(Don't worry, you'll remain anonymous until you choose to release your contact information.)

Job searching can be time-consuming, but it doesn't have to be.

Take the next step in your career journey with your <u>SSA Career Centre</u>.

Calling all AStat accredited members - join SSA's Accreditation Committee

The Statistical Society is representing a diverse community and would like to see this represented in the make-up of its Accreditation Committee. It would like to build breadth across the sector, across different areas of expertise.

You are invited to apply for a position on the committee and help more SSA members to become accredited. The time commitment is not terribly large. The committee meets approximately six weekly via Zoom, and meetings are kept to

one hour. Preparation for meetings typically takes between one and three hours, depending on the number of applications (which can vary considerably from meeting to meeting).

Accreditation Committee members usually serve for a term of three years, with two members completing their terms on the committee each year.

If you are interested is joining the Accreditation Committee, please send an email with an expression of interest and a copy of your resume to SSA's Executive Officer Marie-Louise Rankin.

From previous newsletters

Election of Executive Members

Members are advised that the Executive positions of Secretary and Treasurer will become vacant at the Society's Central Council Annual General Meeting in 2024.

Members of SSA are invited to submit nominations for the two positions to be vacated. Nominations must be in writing and signed by the nominator(s), and must be accompanied by a written and signed statement from the nominee accepting the nomination. Nominations should be submitted to the SSA President (president@statsoc.org.au) or to a Branch President before 1 May 2024.

Doug Shaw, Secretary

SSA Events

Statistical Consulting Network Monthly Meet-Up

26 April 2024, 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 (AEST). 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

Canberra Branch meeting -- COVID-19 vaccine fatigue in Scotland presented by Robin Muegge

30 Apr 2024-5:45 PM - 7:00 PM (AEST) The Gallery, Level 2, Cultural Centre, University Ave, Kambri ANU (<u>The Gallery - Kambri</u>).

Vaccine fatigue is the propensity for individuals to start but not finish a vaccination program with several doses, which thus means they are less protected. This is an especially important topic for COVID-19, where the vaccination program commonly consists of two doses followed by a booster vaccine dose to get full protection.

COVID-19 vaccine hesitancy (the delay in acceptance or refusal of the first dose of the vaccine) has been studied extensively, and a few studies investigated the willingness to receive the booster vaccine dose. In contrast, attrition rates across subsequent doses caused by evolving vaccine fatigue have yet to be examined, which is the novel contribution of this paper.

At the end of the seminar, Robin will briefly introduce his current work on outlier detection in areal data, titled "Disease mapping: What if Tobler's First Law of Geography doesn't hold?".

For more details and the zoom link click here.

Multivariate Spatial Models for Community Ecology Using a Basis Function Approach- David Warton and

Statistical Solutions: From Wildfire Losses to Protein Engineering-Houying Zhu

16 May 2024, 11:00 AM - 2:00 PM (AEST), Macquarie University (lunch provided) and via Zoom

Basis function expansions are a fundamental tool for doing spatial statistics on large datasets or complicated problems. Essentially, a basis function approximation to a random field lets us treat a spatial model like a generalised additive model. Here we will look at three problems from ecology that require the fitting of spatial models to point event or multivariate data and show how we can develop powerful new tools using a basis function approximation, extended (where needed) to the multivariate setting by combining with factor analytical techniques. We show how we can then: fit a log-Gaussian Cox process using standard GAM software; partition biodiversity along spatial gradients to identify regions of high turnover and its main drivers; fit multivariate point process models to account for observer bias and study co-occurrence from citizen science data.

Register <u>here</u> and <u>RSVP</u> for catering.

Zoom link

Early Career & Student Statisticians Conference 18th - 21st November 2024

Join us for the biennial Early Career & Student Statisticians Conference (ECSSC). Organised by the ECSS Network of SSA and SECS Network of NZSA, this event offers invaluable insights and networking opportunities.

This year, we're excited to host local hubs in Perth, WA, Hobart, Tasmania and New Zealand, as well as a livestream option. Don't miss out on this incredible experience!

Important Dates:

• 1 July 2024: Call for abstracts

• 15 July 2024: Registrations open

• 26 July 2024: Deadline for abstract submission

Please note that these dates might be adjusted as the conference approaches. Bookmark the event website.

Also participate in our Logo Competition: Design the official conference logo for a chance to win a free registration to the conference! Submit your logo to events@statsoc.org.au.

Other events

International Conference on Teaching Statistics (ICOTS) 2026

ICOTS12 will be held in Brisbane, Australia in 2026. Save the date!

More information available here.

Current Vacancies in SSA's Career Centre

0116496 Associate Researcher, Biostatistics

New South Wales

The University of Sydney

2x Full-time, 12-month fixed-term roles ...

Sydney Horizon Educators (Faculty of Medicine and Health)-School of Public Health Lecturer (Education Focused)

New South Wales

The University of Sydney

Full time continuing academic Lecturer Education ...

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.

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