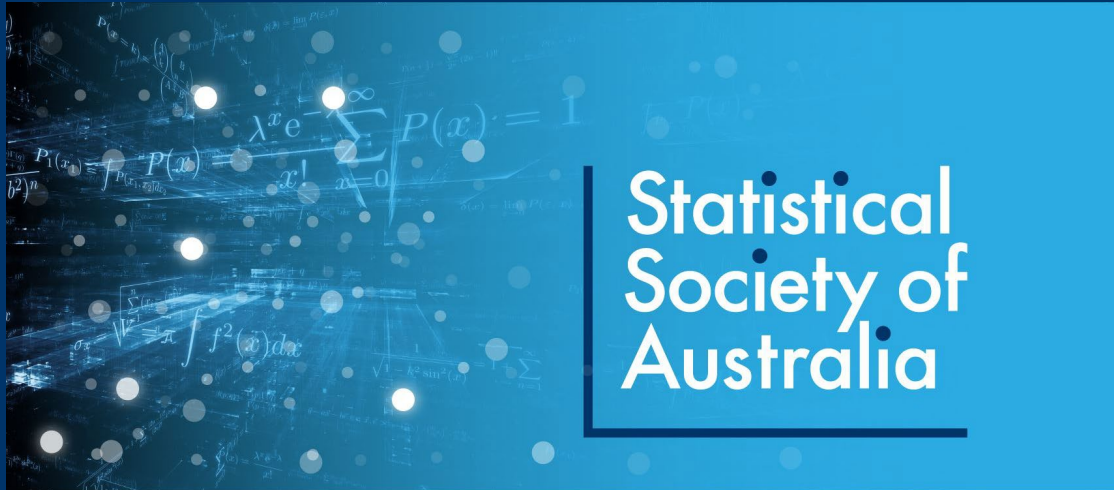


From: [Statistical Society of Australia](#)
To: [Marie-Louise Rankin](#)
Subject: Stats Matters & Events
Date: Thursday, 26 January 2023 10:00:17 AM



STATS MATTERS & EVENTS

26 January 2023

Dear Marie-Louise,

Happy Australia Day!

The SSA office is closed today, as we are marking the arrival of the First Fleet of British ships at Port Jackson, New South Wales in 1788. I expect our members will spend this day in a variety of ways, depending on their interests, heritage and professional responsibilities.

Some of you may choose to participate in traditional Australia Day celebrations, such as spending time with family and friends, attending barbecues or sporting events or simply going to the beach.

However, for others, Australia Day is also an opportunity to reflect on the contributions of Indigenous Australians and the ongoing impact of colonialism on Indigenous communities. Some of you may choose to participate in events and activities that honour Indigenous culture and raise awareness of Indigenous issues.

On a professional level, some of you may spend Australia Day working, perhaps even on data analysis and research projects related to Indigenous populations, developing data-driven solutions to improve the well-being of

Indigenous communities.

Australia Day is a wonderful opportunity for reflection, and for us to celebrate our national identity and heritage. For this immigrant from Germany, however, Australia Day is something different altogether. It's our daughter's birthday and, just as I have been doing for the last 21 years, I'll be baking a birthday cake (not pavlova!) and making sure she has a wonderful day.

Marie-Louise Rankin
SSA Executive Officer

Read newsletter in your [browser](#)

In this newsletter:

[Dealing with uncertainty in medical “murder” cases](#)

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Dealing with uncertainty in medical “murder” cases

Professor [Richard Gill](#), Emeritus Professor of Statistics, Leiden University is a well-known figure in the field of forensic statistics and has made significant contributions to the field of criminal justice. One of his most notable cases was his involvement in the overturning of the guilty verdict of Dutch nurse Lucia de Berk. I mentioned Gill in another newsletter, published last April.

In 2002, de Berk was convicted of seven counts of murder and three counts of attempted murder of patients in her care, based on statistical evidence presented in court. The prosecution argued that the odds of the deaths and incidents happening by chance were astronomical, and therefore, de Berk must have been responsible.

Gill, however, took a closer look at the statistics and found several flaws in the prosecution's arguments. He pointed out that the prosecution had ignored important factors such as the patients' illnesses and the fact that the hospital where de Berk worked had a generally high mortality rate.

Gill's expert testimony and statistical analysis helped to cast doubt on the prosecution's case and ultimately led to de Berk's conviction being overturned. The court found her not guilty, and she was released from prison in 2008.

Gill's work on this case and many other cases has been widely recognised by the legal community, and has helped to improve the field of forensic statistics and the use of statistics in the criminal justice system.

In September 2022, a report co-authored by Richard Gill was peer-reviewed and distributed by the Royal Statistical Society (RSS):

["Healthcare serial killer or coincidence? Statistical issues in investigation of suspected medical misconduct"](#).

The report is a comprehensive study of the use of statistics in medical "murder" cases, and it makes several recommendations on how to deal with uncertainty in such cases. It emphasises the importance of considering all relevant factors and not relying solely on statistics to prove guilt. It also calls for the use of multiple experts to provide different perspectives on the evidence and for greater transparency in the presentation of statistical evidence in court.

In addition, the report recommends the use of Bayesian statistics, allowing for the incorporation of prior knowledge and the explicit representation of uncertainty. This approach, the authors argue, would provide a more realistic and nuanced understanding of the evidence and would help to avoid the problems that occurred in the Lucia de Berk case.

Furthermore, the report suggests that the use of a pre-trial conference, where the prosecution and defense experts meet to discuss the evidence and the statistical methods to be used in the trial, could help to avoid confusion and misunderstandings that can occur during a trial.

Gill and his co-authors' recommendations were widely read and discussed among legal and statistical experts and were seen as a significant contribution to the field of forensic statistics. They have been taken into account in several high-profile cases, and helped to improve the use of statistics in criminal trials.

Could your future as a statistician lead you into the field of criminal justice?

Find out more about Richard Gill and his fascinating work [here](#).

Marie-Louise Rankin
Executive Officer

Mentioned in previous newsletters

ASC 2023: Call for Abstract Reviewers

The ASC 2023 Scientific Programming Committee (SPC) is currently seeking expressions of interest from SSA members interested in undertaking the peer review of abstracts for the conference. All areas of statistical expertise are welcome. The Australian Statistical Conference, partnered with the Australian Conference on Teaching Statistics (OZCOTS), will take place in Wollongong from 10th-15th December 2023.

Each reviewer will be responsible for blind reviewing up to 20 abstracts of up to 300 words aligned with their area of expertise and each abstract will have 2 reviewers. Review criteria and information on how to review the abstracts will be provided once the call for reviewers closes. **Reviewers must be available to review abstracts between April and May 2023.**

Selection of reviewers will be based on SSA membership and area of expertise, with the number of reviewers based on the number of abstract submissions. If you are able to review abstracts, please complete the [online registration form](#). Abstract reviewer registrations will close on **31st March 2023**

Call for nomination: Horizon Lectures, [Australian Statistical Conference](#), 10-15th December 2023 (ASC 2023)

The Statistical Society of Australia (SSA) and ASC 2023 Scientific Programme Committee are delighted to open nominations for the inaugural Horizon Lectures, to be given at ASC2023 in Wollongong, 10th- 15th December 2023.

The Horizon Lectures aim to recognise emerging leaders in Australia's statistics community and their contributions to advancing statistical practice across academia, government, and/or industry. Lectures will be awarded to mid-career statisticians working in any discipline who have made an impact within their field(s) of expertise and have demonstrated leadership in building capacity in statistical expertise within Australia.

Up to three (3) Horizon Lectures will be awarded for presentation at ASC2023. All Lectures will be presented together as a plenary session to all conference delegates. Lectures can be on any area of statistics in line with the awardee's expertise. Each awardee will receive up to \$2,500 to cover conference and travel costs.

Nominations involve a written statement (up to 1,000 words) summarising how the nominee meets the award selection criteria. Nominees must be a member of the SSA and be employed as a statistician in Australia. Nominations must be supported by another member of the SSA.

Full details on eligibility, award selection criteria and submission are available in the

nomination form, available on the [conference website](#). Nominations must be submitted by **5 pm AEST, 28th February 2023**. Late nominations will not be accepted.

Questions about the Horizon lectures can be sent to ASC 2023 Scientific Programming Committee at asc.ozcots2023@gmail.com

SSA Events

[The Necessary SQL - An Introduction to SQL with Daniel Fryer](#)

6-February 2023, 9:00 AM (AEDT) – 7 February 2023, 5:00 PM (AEDT),
Online via Zoom

The Statistical Society of Australia (SSA) and the Social Research Centre (SRC) proudly offer the following workshop:

Small Area Estimation Workshop: Combining Census and survey data to create reliable local-area estimates

8 Mar 2023, 1:00 PM – 5:00 PM (AEDT), held online.

This workshop will give an overview of considerations, methods, tools and outputs for small area estimation. Topics covered will include the following:

- * Design considerations, including questionnaire items and sources of auxiliary data;
- * Preparation of survey and auxiliary data for modelling;
- * Model building and production of estimates; and
- * Options for presentation and visualisation of results.

Material and examples will focus on unit-level models for small *areas*, but mention will also be made of small *groups* in the population to which the same techniques can be applied. Comments will be made about implementation of the methods in R, including package recommendations, but references to the applicable literature will be provided to enable working with other software.

For more details and to register click [here](#).

Save the date: ASC and OZCOTS 2023

10-15 December 2023, University of Wollongong, NSW

[Find out more](#)

Job vacancies in [SSA's Career Centre](#)

[Data Analyst](#)

Queensland

Queensland Aboriginal and Torres Strait Islander Child Protection Peak

This role focuses on the analysis of data sets ...

[Postdoctoral Research Associate in Statistical Bioinformatics](#)

New South Wales

University of Sydney

Full time 18 month fixed term, located on the ...

[Associate Professor/Professor in Computational Algebra](#)

New South Wales

University of Sydney

Exciting opportunity for an outstanding senior ...

[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](#)