



# Foreword from the President



**As the first year of my Presidency comes to a close I'm keen to reflect on the positive impact the Society has had during a challenging twelve months.**

I have very much enjoyed getting to know the breadth of work that the Society is involved in and been impressed by the responsiveness and energy of the fellowship. One highlight for me has been the RSS conference, where there was such palpable excitement about being able to get back to the lively in-person impromptu discussion of statistical ideas that results from listening to colleagues. Through our work and engagement in the Covid-19 pandemic, we have raised the profile of statistics in the public and government, and we are actively planning how to build on these achievements.

It is gratifying and reassuring to note that, despite the difficult times we find ourselves living through, our membership has remained strong and in fact member numbers have continued to grow in 2021. Having broken the 10,000 barrier for the first time in 2019, we now have over 10,200 members, in over 120 countries worldwide.

Our policy and external relations work has been heavily influenced by the pandemic. Our Covid-19 Task Force has continued to have an active voice on the statistical issues relating to it, from calling for better data on the vaccine roll-out to urging the UK government to publish the evidence behind its travel lists. The Task Force also published its Covid 'Lessons learned' memo – outlining ten statistical lessons for the government; this is currently the Society's most-downloaded policy document. Testing has been a particular focus with the Task Force's statement on schools testing in March generating approx. 700 pieces of media coverage. Our Working Group on Diagnostic Tests published its review of diagnostic tests in June, and we are pursuing discussions with MHRA on how to take these recommendations forward.

You may be aware that I have a particular focus on increasing the Society's interactions with the data science ecosystem – so I am especially pleased that this year we helped to form, and became part of, the Alliance for Data Science Professionals. The RSS's vice president for professional affairs, Rachel Hilliam, will serve as the inaugural Chair until the end of 2022. The Alliance is working to create industry-wide professional standards for data science, ensuring an ethical and well-governed approach so the public, organisations and governments can have confidence in how their data is being used. We have also convened a Data Science Task Force to investigate how the RSS can deepen and extend its impact on the field of data science, and its offering to fellows who work as data scientists.

I am also delighted that we are continuing our commitment to promoting equality, diversity, and inclusion (EDI) across the organisation and the profession, with the creation of a new role of Honorary Officer for EDI. This role will be supported by a committee of fellows to drive forward this important work. I am pleased to say that, at the time of writing, we are close to making an appointment to the Honorary Officer role, and I hope that by the time you read this you may have already seen a positive announcement to this effect.

I very much look forward to 2022, where we will start to implement our strategy for further engagement with data science. We will also work to promote the fantastic work that statisticians have done during the pandemic, and identify ways to build on these remarkable achievements. I wish you a healthy and peaceful end of the year.

With very best wishes

A handwritten signature in black ink, appearing to read 'S Richardson', with a long, sweeping flourish extending to the right.

**Professor Sylvia Richardson**

# Goal 1

For statistics to be used effectively in the public interest, so that policy formulation and decision-making are informed by evidence for the good of society.

## Covid-19

The Society and its members are playing an important role in the response to Covid-19. Our Covid-19 Task Force has continued to have an active voice on statistical issues relating to the pandemic, from calling for better data on the vaccine roll-out to urging the government to publish the evidence behind its travel lists. The Society's sections have also played an active role in the debate. In March the Task Force published [its recommendations](#) on lessons to be learnt from the pandemic, which has proved to be the Society's most downloaded report to date. Our [Working Group on Diagnostic Tests](#) has set out detailed recommendations on how to improve regulation around testing, which we are now discussing with the government.

## Policy

We have responded to a wide range of government and parliamentary consultations. These have included Covid-19 (both lessons learned and on the economic impact), reproducibility and research integrity, the use of health data in research and the use of new data-based technologies in law enforcement.

## Media

The Society's media presence has increased over 2021, with a continued focus on Covid-19. For example, our commentary on Covid testing in schools led to over 700 pieces of coverage. We have secured opinion pieces in the Times, Guardian and the Conversation as well as broadcast interviews on the Today Programme, the BBC News Channel and Times Radio.

## Exams

We are pleased that the Office for Statistics Regulation took up our call for a review into last year's exam adjustment process, and adopted our recommendation for more transparency around the process. In the wake of this year's exams results, we urged the government to engage widely on the question of how exam grades during the pandemic will impact next year's results to build consensus on how this should be handled. We are continuing to raise statistical issues related to the changes in how grades are awarded.





# Goal 2

For society to be more statistically literate, so that people's understanding of data, risk and probability can inform their daily decision-making, leading to better outcomes.

## Outreach

Our statistical ambassadors provide regular statistical expertise to journalists and stakeholders. We have provided them this year with media refresher training so they are able to develop their public engagement skills. We also celebrated the statistical communication skills of non-statisticians via our Statistical Excellence in Journalism award, which this year had 100 entries.

## Education

In our engagement with government and funding councils, we have continued to emphasise the message that statistical education needs to take place in a wide range of subjects in addition to mathematics – so that as many people as possible gain a meaningful statistical education at school level. The Society continues its work on improving statistical literacy, and to this end, we continue to be a funder and supporter of the Royal Society's Advisory Committee on Mathematics Education.

## Significance

*Significance* magazine continues to grow in popularity, and has published many articles on Covid-19 over the course of the pandemic.

At the time of writing, our articles in the Wiley Online Library have been downloaded more than 280,000 times this year.

We're delighted to report that the Statistical Society of Australia (SSA) has become a partner in the production of *Significance*, meaning that the magazine is now a joint publication of the RSS, the American Statistical Association, and the SSA. We look forward to working with our new SSA colleagues on articles relating to Australia and the surrounding region.

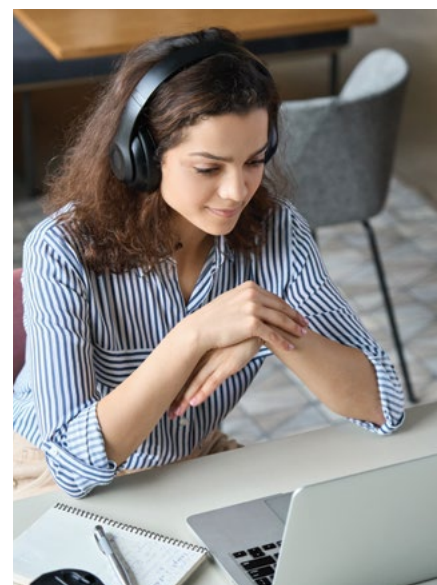


## Training

The range and popularity of our training programme has grown this year; by the end of September we had booked over 300 people onto our public training courses. We will run 30 public courses in 2021, and have provided bespoke training for clients including Deloitte MCS Ltd, the Ministry of Defence and the Foreign, Commonwealth & Development Office.

## Events

For most of the year, no in-person events were held, because of Covid. However, the Society's Sections and Local Groups rose to the challenge of lockdown, hosting over 100 online events, many of which had record numbers of attendees. Later in the year, the Society held a well-attended Q&A with David Spiegelhalter and Anthony Masters on their book 'Covid by Numbers', and a conference in partnership with the Economic Statistics Working Group and Open Innovations on the data required to track the government's 'levelling-up' agenda.



# Goal 3

For a strong body of professional statisticians to maintain and develop the skills they need so that they can critically apply methodology, interpret results and communicate findings.

## Accreditation

We have made major improvements to our accreditation programme, including:

- Launching a new professional membership title - Data Analyst - to recognise good statistical knowledge at a modular level.
- Developing a competency-based route to our GradStat title, for eligible career-young statisticians.
- Introducing the RSS Quality Mark, an accreditation route for individual degree modules and data skills training from other education providers.

## International Development

The Society continues to organise placements for RSS members to volunteer abroad with the African Institute for Mathematical Sciences (AIMS), and Partnership in Statistics for Development in the 21st Century (PARIS21). Both these initiatives help build capacity for low-income countries to develop their statistical systems.

## Corporate Membership Partnerships

During 2021, the Society successfully registered three new corporate members; we now have a total of 27 partners. One of these organisations brought over 50 individual members to the RSS. We also welcomed 16 members from the Big Data Lab, our first Japanese partner. We have been working closely with the Cabinet Office to renew their partnership status and have now agreed that all future entrants on the Civil Service Statistical Fast Stream will be joined as RSS members. Furthermore, we will soon have a University in Ghana (Takoradi Technical University) set up as a corporate partner.

## Data Science

Deepening the Society's commitment to data science and improving our offering for data scientists is a major priority for us.

We have co-founded the Alliance for Data Science Professionals with the British Computer Society, The Chartered Institute for IT, the Operational Research Society, the Institute of Mathematics and its Applications, The Alan Turing Institute and the National Physical Laboratory. This group will lead a wider consortium of organisations in work to develop and shape the profession of data science.

We have also assembled an RSS Data Science Task Force of international experts to help us plan future work in this area.

Several projects are already underway, including:

- The Alliance for Data Science Professionals mentioned above.
- A partnership with the Alan Turing Institute to provide the Joint Biosecurity Centre with statistical modelling research capability.
- The active work of our Data Science Section, who organise regular well-attended speaker meetings and events such as the Ethics Happy Hours.

**Data Analyst** ROYAL STATISTICAL SOCIETY  
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**GradStat** ROYAL STATISTICAL SOCIETY  
GRADUATE STATISTICIAN  
DATA | EVIDENCE | DECISIONS

**Quality Mark** ROYAL STATISTICAL SOCIETY  
DATA | EVIDENCE | DECISIONS



# Goal 3

For a strong body of professional statisticians to maintain and develop the skills they need so that they can critically apply methodology, interpret results and communicate findings.

## Equality, diversity and inclusion

We are working hard to promote Equality, Diversity and Inclusion across the organisation and the profession. As part of this, we have created a new Honorary Officer post for Equality, Diversity and Inclusion, who will be supported by a committee of fellows to drive this work forward.

Projects in development include a partnership with the Royal Society on standards for the reporting of research on sex differences, and supporting work to “decolonize” mathematics curriculums.

## Statistical excellence awards

We celebrated the work of UK government statisticians and non-statisticians through our statistical excellence awards programme, which this year had a focus on equality, diversity and inclusion and on Covid-19. An online awards ceremony was held in July, with presentations from key RSS fellows and our award partners.

## Honours

Each year we award medals and prizes to people who have made outstanding contributions to the development of statistics. The 2021 awards ceremony was held in September as part of the annual conference in Manchester.

### 2021 honours and awards recipients

Guy Medal in Silver	Håvard Rue
Guy Medal in Bronze	Pierre E. Jacob
Wood Medal	Katie Harron
Chambers Medal	Sara Hilditch
Bradford Hill Medal	Bianca De Stavola
West Medal	Peter Goldblatt
Howard Medal	Brian Francis
Greenfield Industrial Medal	Philip Jonathan
Research Prize	Chengchun Shi
Barnett Award	Jonathan Rougier

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# Goal 4

For statistics as a discipline to thrive, so that methodology is advanced, applied and made accessible, leading to greater understanding of an increasingly complex world.

## Journals

The Society's journals continue to prove popular with authors and with readers. All three of our journals have increased their Impact Factor scores this year. By the end of 2021 four discussion paper meetings featuring seven discussion papers will have been held. These included two multi-paper meetings on 'Statistical aspects of the Covid-19 pandemic', the first of the two being a well-attended 'blended' event at the RSS annual conference in Manchester. An important and successful Special Topic Meeting on Covid-19 Transmission was held in June and all papers and discussions are being published in a special supplement of Series A. In total, the three series are on track to publish more than 5000 pages this year with an increase in the number of articles published and the number of submissions and full article downloads.

## Sections and Local Groups

Our Sections, Special Interest and Local Groups continue to be very active, and held over 100 events and meetings during 2021. For example, the Data Science Section held fireside chats with AI researcher and entrepreneur, Andrew Ng and Kaggle founder, Anthony Goldbloom. Local Groups also organised valuable outreach activities, in particular, the Lancashire and East Cumbria local group and the Highlands local group (in collaboration with History of Statistics Section) celebrated women in statistics.

## International Conference

In September 2021, we held our first ever 'blended' RSS International Conference, which was attended by over 500 participants both in Manchester and online. The programme featured the usual mix of keynote talks, invited topic sessions and contributed talks and posters, and for the first time over 40 hours of content was made available online via live streaming and on-demand post-conference. The Society has announced that the RSS 2022 International Conference will take place in Aberdeen in Scotland from 12-15 September 2022.



# Goal 5

For an engaged and energised membership and staff to work collaboratively with partner organisations and other stakeholders in meeting these goals, so that the Society can maximise its impact.

## Membership

We are pleased to report that our membership continues to grow – having broken the 10,000 barrier for the first time in 2019, we now have over 10,200 members, in over 120 countries worldwide. Over 6,400 are fellows, with the remainder in our e-Student and e-Teacher categories.



## Statisticians for Society

We have further developed our work on supporting RSS members to provide *pro bono* statistics expertise to small UK charities. In 2021, we matched 22 charities with volunteer statisticians. Since the project began, we have completed 48 projects in total, and over 600 fellows have registered their interest in volunteering.



## Partnerships

The Society has continued to work with a wide range of partners throughout the year including government statistical bodies (e.g. the Office for National Statistics); research councils (e.g. UK Research and Innovation); statistical societies (e.g. American Statistical Association, the International Statistical Institute); mathematical bodies (e.g. through the Council for the Mathematical Sciences); and scientific bodies (e.g. Royal Society).

## Campaigns Advisory Group

The Society established a new advisory group – composed primarily of Council members – to improve the ability of members to set the direction of our campaign and policy work. This should provide greater transparency and accountability in how these areas of our work are pursued.





# Goal 6

For the RSS to be a financially stable and well-run organisation with effective governance and use of technology, so that it will grow in relevance, exert influence and have wider impact.

## Finances and operations

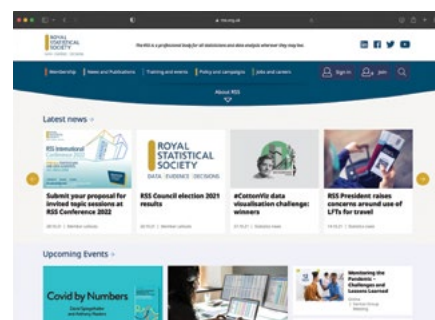
The Society has moved most of its operations and meetings online in view of the Covid-19 pandemic. Fellows and staff embraced this challenge and moved most meetings, training sessions and events online.

Financially, the Society's position this year is stable. Membership numbers have held steady despite Covid; falls in commercial revenue (for example from room hire) have been mostly offset by the lower operating costs of online work and modest reductions in staffing costs.

## IT

The launch of our new website saw traffic rise to over one million views per year for the first time ever. Members can now subscribe to 34 different newsletters via MyRSS. The roll out of Office 365 to sections and local groups has allowed them to independently organise events, create surveys and securely share resources.

All IT infrastructure was migrated to the cloud to facilitate hybrid working and comply with the latest security standards. The move to MS Dynamics CRM has increased the efficiency of our internal systems and allowed us to develop a better understanding of our members' interests.



#### From past to present...

The image of the sheaf of wheat first appeared in our original seal. Being the end product of the harvesting and bundling of wheat, it was a pictorial way of expressing the gathering and analysis of data: the foundations of statistical work.

It also implied that statistical practice comprises more than the collection of data, but also its active interpretation and application as well (threshed for others, if the rural analogy is sustained). Rigorous data gathering is still at the heart of modern statistics, but as statisticians we also interpret, theorise and present the data we collect.



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