International Statistical Institute

Statisticians Bring It Together

Happy new year!

My very best wishes to the whole ISI family and the international statistical community for health, success and safety for you and your loved ones for 2019.

2019 is a World Statistics Congress year, bringing together a rich variety of people, issues, research, applications, contexts and debate in statistics and data science. With participants from more than 120 countries, and a splendid and diverse scientific program mixed with local culture and international networking, it is no wonder that feedback and surveys consistently emphasize:

- the strength of the international coverage;
- the many opportunities for developing collaboration;
- the breaking down and reaching across boundaries of workplaces and statistical contexts;
- the inclusivity and variety of the program; and,
- overall, the environment of collegiality, global breadth and relevance.

In 2018, the world news was frequently of increasing divisions and boundaries. In contrast, it seems to me that more than ever, the statistical community is bringing things together. Statistics has always been a science of synthesis and amalgamation – of insights, theory, applications, data, technology, methods and ideas from different disciplines. In considerable literature about statistical consulting, leading statistical practitioners have long emphasized collaboration and teamwork. Now we see emphasis that the heart of data science is teamwork, and problem-solving that combines data, technology, theory and context. For decades, statisticians and statistics educators have been advocating curricula, content pedagogies and teaching resources which bring together statistical practice, statistical thinking, experiential learning and authentic assessment. And now, more than ever, statistics and data science need the bringing together of words, pictures and numbers in communication of real evidence – which inherently involves variation and uncertainty – to citizens and decision-makers.

The ISI WSC 2019 in Kuala Lumpur provides many examples of the statistical community 'bringing it together'. In the scientific sessions already known, we see not only the customary diversity of topics, applications and statistical interests, and sessions organised by ISI Associations and Special Interest Groups, but also products of a number of ISI international collaborations, giving rise to a range of sessions, including special IBS and ISBA sessions. In addition, the many sessions referring to the UN Sustainable Development Goals reflect a concerted global statistical effort towards these. The strong programs of satellite conferences, pre-conference symposia, workshops and short courses also demonstrate

'bringing it together' in data science, the environment, surveys, education, finance, banking and technology.

The hosting and organisation of WSC 2019 are in themselves exemplars of collaboration – between DOSM (Department of Statistics Malaysia), Bank Negara Malaysia (Malaysia's Central Bank) and ISM (Malaysia Institute of Statistics).

The International Prize in Statistics brings together five leading statistical societies to honour and publicize powerful and original ideas that lead to breakthroughs in other disciplines and works with important practical effects on the world. This year's prize to Professor Brad Efron in recognition of the "bootstrap" provides a wonderful example of outstanding thinking in fusing data, concepts, theory and technology, which has also brought a unifying approach to quantifying uncertainty across all data science fields and contexts.

The statistical community also comes together in articulating and supporting a range of fundamental principles of statistics, data, evidence and professional behaviour. As just one example, in 2018 it was my privilege to help bring together a number of statistical societies to acknowledge Andreas Georgiou's upholding of the highest professional standards in his public service in the pursuit of integrity of statistical systems.

In many ways, ISI can be considered as a "united nations" of statistical sciences, bringing together the international statistical community across all areas of statistics and data science, across theory and applications, and across boundaries of countries and workplaces. This can often be challenging and ISI is often taken for granted, but such bringing together is at the heart of the statistical and data sciences. Every ISI member contributes to this important work, and we look forward to a 2019 of collaboration and growth in pursuing ISI's mission and objectives.

Helen MacGillivray
ISI President