

the Survey Statistician

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INTERNATIONAL ASSOCIATION
OF SURVEY STATISTICIANS



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The Survey Statistician No. 84, July 2021

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Letter from the Editors

Dear readers,

We are glad to present you the July 2021 issue of TSS.

First of all, it includes the last *Letter from the President* by Denise Silva and the last *Report from the Scientific Secretary* by James Chipperfield. They complete their tenure, and have accomplished their duties. We thank both of them for a most pleasant cooperation during two years and for their human warmth, which helped to prepare TSS issues.

The current issue includes personal events, joyful and sad, about some members of IASS as well as material on new and timely topics. “The age of statistics is being replaced by the data era”, says W. Rademacher who presents a paper on standardisation in statistics. Similarly, the big data context is used to describe applications of Machine Learning in official statistics by P. Daas and M. Puts. A lot of relatively new methods – non-traditional for earlier sampling theory textbooks – are included in the book reviewed by J.-K. Kim. Classical survey sampling cannot escape the “data era” and they are still very topical. Results of the project initiated by Eurostat on non-sampling errors in surveys to estimate social inequality indicators are presented in the paper by P. Lynn. As usual, you will find country reports, information about the contents of other journals, upcoming conferences and workshops. Perhaps the most interesting item is the list of 18 IASS-sponsored invited sessions at the WSC 2021 included into the Report from the Scientific Secretary.

We would like to thank everybody who devoted their time in organizing and preparing material for this issue.

Two members of the editorial body are performing their tasks for the last time: IASS webmaster Harry Raymond, Australian Bureau of Statistics, updated the TSS website according to the requests of the editors and took good care of it. Technical editor Martinš Liberts, Central Statistical Bureau of Latvia updated the shape of TSS and prepared the tidy issues. Thank you, dear colleagues, it has been a great pleasure to work with you.

We would also like to wish success in future activities to Denise, James, Harry and Martinš!

At the same time, we invite new comers to join the editorial team of TSS and to become webmaster, technical editor of TSS and Editor of the section *Book and Software review*.

If you have any information about conferences, events or just ideas you would like to share with other statisticians – please do go ahead and contact any member of the editorial board of the newsletter.

The Survey Statistician is available for downloading from the IASS website at <http://isi-iass.org/home/services/the-survey-statistician/>.

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Letter from the President

Dear IASS members

Time flies and this is now my last letter to you as IASS president. I am grateful for your support to IASS activities in this difficult period. We had to adapt and focus on what could be done (and how), while each of us were dealing with our own challenges, worries and, many times, sadness. It is good to see that IASS has been able to provide a lively and welcoming virtual environment for the development of survey statistics, also fulfilling its capacity building role. From June 2020 until May 2021, more than 750 attendees joined the IASS webinars and short courses. Our webinar series is a well-established success and is already planned to continue. The IASS supported conferences that were postponed in 2020 are all confirmed for 2021, and a call for new requests for support to conferences was issued.

The Cochran-Hansen prize awardee, Guilherme Jacob from Brazil, was announced in April. I congratulate the winner and I express my gratitude to the 2021 Cochran-Hansen prize committee: Isabel Molina (chair), IASS Vice-President from Universidad Carlos III de Madrid, Yves Tillé from Université de Neuchâtel and Jean-François Beaumont from Statistics Canada.

IASS community members were highly active in proposing short courses and invited paper sessions (IPS) for the 2021 ISI World Statistics Congress. James Chipperfield writes about them, and the two IASS Special Invited Sessions, in his Scientific Secretary report. I want to highlight that, for the first time, there will be a special session to celebrate our newsletter *The Survey Statistician*, organised and chaired by Danutė Krapavickaitė.

I would like to dedicate the other traditional special session, the IASS President's and Cochran-Hansen Prize Session, to the memory of Hukum Chandra, an active IASS member, gifted researcher, winner of the 2009 C-H award, and an incredibly special person who passed away recently as one of the many lives lost to the COVID pandemic. Also, with the valuable support of Yongyi Min and Haoyi Chen (UNSD), Dennis Trewin and Paul Biemer, the invited session on "*How survey experts can contribute to the better use of citizen-generated data for public policy*" is a tribute session in honour of Lars Lyberg.

The IASS 2021-2023 officer's election is currently taking place and members can vote until July 13. Ralf Münnich chaired the Nominating Committee (NC) that was composed of Sanjay Chaudhuri, Andrés Gutiérrez Rojas, Ineke Stoop, Linda Young and Daniela Cocchi (Chair of the previous Nominating Committee). Many thanks to the NC members for their excellent work and special thanks to the candidates for their readiness to contribute in shaping the IASS future. As the current IASS Executive Committee will end its mission soon, I would like to say how pleasant it was to share the office with you. Many thanks for the teamwork and friendship. I welcome Monica Pratesi as the future IASS President and wish all the best for her term in office.

Once again, I praise the members of IASS community who devote their time to our association. The TSS is a shining star 😊. I am sure you all appreciate the excellent articles and value the work to make it happen. I thank the main editors, section editors, the authors/contributors and all those involved in its production and circulation. We are looking for a volunteer to substitute Mārtiņš Liberts who has been taking care of TSS production for the last three years, and another one to join the TSS editorial team as the Book and Software Review section editor. Also, Harry Raymond who has been IASS webmaster for two years is planning to leave this position. I am really grateful for their valuable work and commitment. IASS needs your help to recruit new volunteers willing to take these roles.

Our General Assembly will be held virtually on July 6. I wish we could all be in the same place and share hugs. On the other hand, a virtual event allows the attendance of members from all over the world without travel costs. Coming from a country that still faces inequality in digital inclusion, I hope that the new communication paradigm will lead to a reduction in social and knowledge disparities. In this challenging environment, more and more, IASS reaffirms its value, bringing together people from different places, exchanging information, bridging gaps, offering training, proposing new subjects for development, and comforting with a sense of belonging.

I wish the IASS community continues to thrive and that we succeed in attracting new members. My plan is to be part of this community for many years to come and I hope you will be as well.

Warm regards,

Denise Silva

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Report from the Scientific Secretary

In this report I introduce the article in the New and Emerging Methods section, list upcoming IASS webinars and IASS-sponsored invited sessions at the WSC 2021, and reflect on the IASS.

It is not possible to include all interesting news in this report. However, the monthly newsletters are an excellent way of keeping members informed. Check them out at <http://isi-iass.org/home/services/newsletters/>.

As this is my final report as IASS Scientific Secretary, I would like to add that it has been a rewarding 2 years. The highlight has been making connections with other statisticians across the world. I would especially like to thank Denise, President of IASS, who has been a delight to work with (😊😄).

New and Emerging Methods

The article in the *New and Emerging Methods* section is called *Official Statistics – Quo Vadis*, by Walter J. Radermacher. It is a philosophical article that explores the expanse between reality and statistics using, as a navigation tool, the concepts of individualisation and standardisation. From the title, which translates as “Where are we going?”, Walter is challenging us to not lose sight of the fundamental precepts of statistics in this Big Data age.

The format of the *New and Emerging Methods* articles is 8–10 pages and should cover the presenting challenge, the methods and their application, and the relevance to the development of survey methods. Please contact your new IASS executive if you are interested in writing such an article for future editions of *The Survey Statistician*.

Webinars

The webinars have been popular for our members (and others!). We frequently get attendance of 50-100 people. A list of previous IASS webinars is at <http://isi-iass.org/home/webinars/> and the recordings are available at <https://www.isi-web.org/events/webinars>. The IASS was also pleased to have its first Francophone Webinar earlier this year!

Future webinars will be advertised at <https://www.isi-web.org/events/calendar>, in IASS newsletters, and in emails to members. I can give you a preview of what is to come this year:

- 26th August 2021, 1:00 PM (CET): *Building a Sample Frame of SMEs Using Patent, Search Engine, and Website Data*¹ (Sarah Kelley, Sanjay K. Arora).
- September 2021: *Targeted or lagged walk sampling for estimation of finite-order graph parameters* (Li-Chun Zhang).
- Late November or early October 2021: *Implementing Adaptive Survey Design with an Application to the Dutch Health Survey*² (Barry Schouten and Kees van Berkel).
- 23rd November 2021 12pm (noon) CET: *Presentation by the Inter-secretariat Working Group on Household Surveys, United Nations*.
- December 2021: *To be Advised* (Ray Chambers).
- February 2022: *Three-Form Split Questionnaire Design for Panel Surveys* (Paul Imbriano).

¹ <https://sciendo.com/article/10.2478/jos-2021-0001>

² <https://sciendo.com/article/10.2478/jos-2020-0031>

IASS Website

I would like to thank Harry Raymond, Australian Bureau of Statistics, who has been the IASS Webmaster for the last 2 years. He has been responsible for keeping our website up-to-date. Harry is planning to leave the role very soon but I understand he will be available to help with the transition to the next Webmaster. Please contact your IASS Executive Committee if you are interested in the Webmaster role.

WSC 2021

In total 18 IASS-sponsored invited sessions have been accepted for the WSC 2021, including two Special Invited Sessions. See details below. Our association is alive and well!

Invited Sessions	Organiser	Affiliation
COVID-19 and household surveys: what have we learned and what does it mean for the future?	Haoyi Chen	Intersecretariat Working Group on Household Surveys
New Data Sources Meet Household Surveys: Scaling-up Innovation for Official Statistics	Haoyi Chen	Intersecretariat Working Group on Household Surveys
Counting People with Administrative Data instead of a Traditional Census	James Chipperfield	Australian Bureau of Statistics
The Evolution of the 21st Century Census of Population and Housing	James Chipperfield	Australian Bureau of Statistics
Model-based estimation of binary and count survey data at granular levels	Andreea Erciulescu	Westat
Recent Advances for Estimation and Imputation in Complex Surveys	Scott Holan	University of Missouri
Women's Roles in the new, post-pandemic world	Jessica Kohlschmidt	OSU CCC
Women in survey sampling research and practice	Alina Matei	University of Neuchatel
Past, Present and Future of Women in Statistics and Data Science	Guadalupe Gomez Melis	Universitat Politècnica De Catalunya – Barcelonatech
How survey experts can contribute to the better use of citizen-generated data for public policy	Yongyi Min	UNDESA
Statistical methods for assessing the effectiveness of e-learning during the COVID-19 era	Cristina Mollica	Sapienza University of Rome
Inference under non-probability samples and big data: Data integration	Isabel Molina	Universidad Carlos III Madrid
SDGs indicators: methods to analyze survey data to monitor/measure vulnerabilities	Monica Pratesi	University of Pisa – Centre Dagum
Modelling Population Nutrition Outcomes with Historical Survey Data in South Sudan	Saeed Rahman	REACH Initiative
Trusted Smart Surveys	Shari Stehrenberg	Destatis

Two Special Invited Sessions:

- *The IASS President's and Cochran-Hansen Prize Invited Session* will involve presentations by Raymond Chambers and Thomas Lumley who will talk about the blend of survey sampling and statistical modelling for the production and analysis of survey data. The organiser of the session is Denise Brtiz do Nascimento Silva.
- *Issues with big amounts of data for survey statistics* is in response to the growing interest to produce Official Statistics using non-probability sample data, such as big data or data from volunteer web surveys, either alone or in combination with probability sample data. This session is based on papers previously published in the TSS. The session will have presentations by Paul Biemer, Ashley Amaya, Jean-Francois Beaumont, Anders Holmberg, and Frauke Kreuter. The organiser of the session is Danutė Krapavickaitė.

Sharing ideas within IASS

I wonder if IASS could provide an easy way for members to share ideas and discuss problems. For example, consider a member who is beginning a research program to develop sample selection in the BigData era. I was wondering whether the IASS' role could support someone in that position to get quick and insightful guidance from experts within our community. Perhaps a question for the next executive to consider...

James Chipperfield

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IASS Scientific Secretary

News and Announcements

Lars Lyberg obituary

Adapted from an obituary published by the Royal Statistical Society

Lars was born near Stockholm on 1 December 1944 and passed away on 9 March 2021 after a long battle with pancreatic cancer. He was President of the International Association of Survey Statisticians from 1993 to 1995.



He spent much of his early life in early Stockholm where he studied statistics at Stockholm University gaining a Doctorate under the supervision of Tore Dalenius. Like most Swedes he had a stint of military service. He started his professional work career at Statistics Sweden in 1966 and spent the next 44 years there culminating in his appointment as head of the Research and Development Department. After retiring from Statistics Sweden, he worked as a consultant in survey methods and quality management. Since 2003 he taught at Stockholm University with professorial status in recognition of his past contributions.

Although he was a very effective statistician at Statistics Sweden specialising in survey methods, he was probably best known for his external contributions. Some of his notable achievements were as follows.

- He was the Developer and Founding Editor of the Journal of Official Statistics in 1985 which continues to perform strongly with a high impact factor. He was Editor-in-Chief for 25 years.
- He was an elected member of the International Statistical Institute, a Fellow of the Royal Statistical Society and the American Statistical Association.
- He wrote or edited twelve Conference volumes on survey methods. Most have been published by Wiley for whom he also acted as an advisor. The latest was a volume on *Big Data Meets Social Science: A Collection of Innovative Methods* which was published in 2020. He completed his very significant contribution even though he was seriously ill at the time.
- He jointly wrote the highly regarded *Introduction to Survey Quality* (with Paul Biemer) and numerous journal articles on survey methods and quality.
- He represented Sweden in the development of ISO Standard 20252 on Market, Opinion and Social Research.
- He taught methodology issues in the survey field in over ten countries.
- He was the winner of the 2012 Waksberg Award for his lengthy and valuable contribution to survey methodology.
- He was a member of the European Statistical Governance Advisory Board.
- He won the 2013 American Association for Public Opinion Research (AAPOR) with his co-editors for the book on *Survey Methods in Multinational, Multiregional, and Multicultural Contexts* (2010).
- He won the 2013 AAPOR Helen Dinerman Award as well as their 2018 Lifetime Achievement Award for significant contributions to survey research methods.

- He won the Swedish Statistical Association's statistician of the year award in 2019 for extraordinary achievements in statistics to the benefit of society.

He had many interests besides statistics especially sport where he had encyclopaedic knowledge not just about Sweden. He was an excellent tennis player in his younger days. Although modest by nature, he was generous of his time especially to young survey researchers. He was always a careful listener often leaving his contribution to discussions to the end after hearing what others had to say.

I first met Lars in 1983 whilst visiting Statistics Sweden and connected immediately. We exchanged knowledge on statistical methods gained through our work in our respective statistical organisations and met regularly after this first meeting, enjoying watching live sporting contests as well as televised matches over a few beers. Lars' is survived by his partner Lilli Japac, a fellow statistician at Statistics Sweden, who became head of Research and Development subsequent to Lars' retirement. He has two adult sons, adopted from Bolivia during his first marriage. Lars was tall and blonde whereas his sons were short and dark. It made for interesting discussions at immigration posts when travelling with his sons.

Lars has been one of the giants of survey methods. He will be sorely missed by his friends, colleagues, and students across the globe.

Dennis Trewin

In memory: Lars Lyberg

Doctor of Philosophy in Statistics Lars E Lyberg, Tyresö, has, as previously announced, passed away at the age of 76 years. The closest relatives are his wife Lilli Japac and sons Luis and Carlos with families.

Lasse worked at Statistics Sweden (SCB) during the years 1966–2010. He was employed as an extra actuary and continued his doctoral studies at Stockholm University in parallel under the supervision of Tore Dalenius, whose views on statistics and quality came to characterize Lasse throughout his professional career. Lasse defended his dissertation in 1981 with the dissertation "Control of the coding operation in statistical surveys: some contributions".

In 1985, Lasse was appointed Chief Statistician by the government and the same year he founded Statistics Sweden's scientific journal *Journal of Official Statistics (JOS)*, for which he was editor-in-chief for many years. JOS has undergone contributions to spread the statistical survey science globally. In connection with its 20th anniversary, some of the world's leading survey statisticians wrote a tribute called the *Journal of Obnoxious Statistics*, a memory that delighted Lasse a lot. During the years 1993–1998, he was director at Statistics Sweden's development department.

With his work, Lasse has contributed to developing areas such as coding, measurement and interview technology. His broad view of quality issues was expressed in, among other things, the standard work "Introduction to survey quality", which he wrote together with his friend and colleague Paul Biemer. Lasse was the initiator of Statistics Sweden's major quality investment in the mid-1990s, which then formed the basis for much of the quality work at Statistics Sweden until today. Within EU cooperation, Lasse was also active and initiated the Q2001 conference in Stockholm in 2001. It has since been followed by Q-conferences every two years.

After retiring, Lasse continued his activities within Statistics Sweden's Scientific Council. Over the years, Lasse has received many international awards. In Sweden, he became Statistics Promotion of the Year 2019.

The colleagues at Statistics Sweden through **Mats Bergdahl-Kercoff, Folke Carlsson, Joakim Malmdin and Joakim Stymne**

A tribute to Seppo S. Laaksonen

Seppo Sakari Laaksonen, ISI Elected member since 1994 and Professor Emeritus of University of Helsinki, passed away of a serious illness on December 20, 2020, in Helsinki, Finland. He was 76 years old.



*Seppo Laaksonen
(1944-2020)*

Over the years, Seppo served the survey statistics community in many significant ways. As IASS Scientific Secretary and Vice President he contributed to the success of many important scientific events of the IASS and ISI, including the 52nd ISI Session in 1999 in Helsinki. Promoting statistical literacy among young people and adults was close to him. He participated in the IASE's International Statistical Literacy project ISLP as the Finnish country coordinator. One of Seppo's long-term activities focused on disseminating good statistical practices among students and professionals, mainly in transition economies. He was often a teacher at the annual educational events of the Baltic-Nordic-Ukrainian Network on Survey Statistics.

Seppo was an active researcher in survey statistics and applications. Good examples are his pioneering work on administrative registers for survey statistics, the treatment of missingness in surveys, and the methodology of multinational surveys. A firm basis for empirical research in these areas was provided by his strong expertise in Statistics Finland's micro-merged longitudinal population and business registers and sample survey databases. In this framework, he organized significant international conferences and workshops, including the Sixth International Workshop on Household Survey Nonresponse in 1995 at Statistics Finland and the first CAED (Comparative Analysis of Enterprise Data) conference in 1996 in Helsinki.

Before his academic career, Seppo Laaksonen worked at Statistics Finland in various positions. He also worked for Eurostat, the statistical office of the European Union. Since 1970's, he played a major role in the methodological advancement of the official statistics system of Finland. He had a significant academic career at the University of Helsinki. Several student generations enjoyed his courses on survey statistics. Seppo retired in 2012 as Professor of Social Statistics.

After retiring, he continued his international activities and research. His last book, *Survey Methodology and Missing Data, Tools and Techniques for Practitioners*, was published by Springer in 2018. The last research paper was on happiness research, a late scientific hobby. The paper entitled as *Age happiness is more complex than U-shaped* was published in Journal of Happiness Studies in 2018.

Seppo was an enthusiastic sportsman. He loved long-distance rowing on inner lakes and cross-country skiing. The tale of Southampton University from the summer of 2001 even tells of a cheerful visiting scientist from Finland who skied to the department every morning on roller skis. Our unforgettable friend and colleague Seppo was positive and open-minded. He will be missed.

Risto Lehtonen, University of Helsinki

Reija Helenius, Statistics Finland