Editorial

1. The origin of and need for new development in training in official statistics

Fundamental changes in production and use of official statistics

In recent years some very important changes in the production process and in the use of official statistics have occurred and are still occurring. These changes can be related to a series of factors. The data revolution has substantially expanded the available data sources and production methods. Official statistics has expanded from mainly survey-based information to data science, combining all type of sources stemming from a variety of stakeholders, ranging from administrations, businesses to citizens, permanently generating information via the digitized world. A second factor is the strong increase in the use and the importance of official statistics in decision making, the growing emphasis on quality and fit for purpose and surely the related emergence of a wide array of misuse practices of statistics that requires a more rigid quality and governance system. A third factor is the economic, environmental and social development at a global scale, making the world one integrated system instead of a world of separate regions and nations. Topics varying from digitization, globalization to climate change are requiring world-wide comparable indicators, for example in the context of the SDG's. In summary in four directions, a) data sources, b) production and dissemination methodologies, c) user groups and d) the use itself, the container 'official statistics' is expanding.

The steps in the industrial production process of official statistics are modeled in the Generic Statistical Business Process Model (GSBPM) as well as in the Generic Activity Model for Statistical Organisation (GAMSO). These models give a useful overview of the steps in the production process and the tools to be applied. To maintain, in the context of all the developments, high quality information for effective decision making, the official statistics community, data scientists and other related fields need to permanently adapt their toolkit for the steps and activities in use for the production and dissemination processes. New data sources and methodologies need to be developed, described and experimented with, classifications to be made fit for new applications and standards, guidelines and recommendations redrafted to anticipate on these new developments.

The development, implementation and outreach of (new) technologies

Traditionally, the development and implementation of new methodologies in statistics is initiated and led by the statistical systems from developed countries and international statistical organizations, experts and custodians in certain statistical domains. To guarantee a wide application this development and implementation is overseen by the UN Statistics Commission (UNSC). International, supranational and regional expert groups supported by academic researchers, are typically the developers of these new methods. Such groups are led often by experts from for-running countries, where the necessity of certain new statistical indicators or need for new methodologies has first been recognized. The outreach and implementation to staff of organizations in developing countries depends highly on the available experts and especially financial support by the developed countries and international community. International capacity building initiatives, regional and national schools for statistics as well as university teaching programs follow in time with including the new knowledge, skills and competences in their curricula to train the staff that is involved in the regular production process. Until a decade ago, such learning and training in official statistics was rather domain oriented, occurred in a face to face environment, was in more developed regions organized on a regional scale and in less developed on a national scale. Furthermore as each training program used its own methods and training techniques there is a great diversity of courses, training and learning programs.

When sufficient resources are available the implementation of new technologies is a regular activity of permanent innovation. In less developed statistical sys-

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tems the dependency on (often external) financial and human resources leads to less frequent, partial or even no implementation at all of new methodologies. This causes a substantial gap with partially implemented standards and partially used or operational tools, resulting in a lower level of availability and comparability of statistical information. The assessment of availability of the national indicators for the Sustainable Development Goals (SDGs) is a striking example showing the differences between countries and regions in readiness to deliver the required comparable information.

The new technologies (IT, communication) also impact the practice of teaching and learning in itself. Nowadays, Information technology allows to meet virtually on a permanent base, to follow courses on-line and to do self learning and training courses via dedicated apps. However, the possibilities to use and seriously participate in these new virtual learning activities depend also on the quality of internet connection as for example the bandwidth and density of the transmitter network. As in some countries and regions these IT facilities are not yet up to a reasonable standard, these new learning and teaching tools might also not be yet that accessible and inclusive.

An exponential increase in the need for global comparable statistical information

The demand for global comparable information is almost exponentially increasing, for example in the context of the SDG's, climate change and rather recent the statistics of the COVID-19 pandemic, resulting in many new statistics and statistics providers and users. This growth in users and providers bears a risk of purposefully or negligent misuse of statistics and leads to a higher emphasis on the quality of the information.

To not run behind in maintaining such high quality and up to date production and dissemination systems, it is required to also efficiently organize and increase the training and capacity building in official statistics. The avalanche of new indicators and techniques around the COVID-19 pandemic caused for the official statistics community to allocate a high sense of urgency to the effective outreach and use of new training techniques and methodologies.

The COVID-19 pandemic on one hand escalates the sense of urgency and stresses the importance of training in official statistics and the need for capacity building and on the other hand heavily impacted the development and use of IT tools in teaching and leaning like virtual meeting apps, working from home and self training. Following the outbreak of the pandemic in winter 2020 there has been a high interest and an unprecedented growth in the use of internet connections, software applications and need for new hardware to anticipate home office situations and guaranteeing a rather uninterrupted functioning of teaching, administrations and businesses. Zoom, Teams and Go-to Meetings, webinars and on-line courses have become the new normal in meeting, training and networking.

A timely SJIAOS issue on 'New Developments in Training in Official Statistics'

This issue of the Statistical Journal of the IAOS anticipates on these developments by describing the recent trends in the training in official statistics of those producing and those using results of official statistics, with the aim to develop respectively their specific knowledge, skills and competencies and to increase the 'statistical thinking'.

The need and rationale for training in official statistics and the necessity to anticipate on the developments as sketched above is described in Section 2.1 of this issue. Section 2.2 expands this to the requirements needed for training in Data Science and Section 2.3 illustrates a method for assessing the type and content of this demand for training. The other three sections give an overview of existing training in official statistics initiatives (Section 2.4), report on the general trends in learning and training (Section 2.5), and illustrate these via a selection of examples of training in domains of official statistics or in regions (Section 2.6).

The issue is compiled by a guest editorial team of experts overseeing the field of training in official statistics. A big word of thanks goes to Pedro Campos (Portugal), Helen MacGillivray (Australia), Reija Helenius (Finland), Hugues Kouadio (Ivory Cost), and Steve MacFeely (Ireland). They supported with their expertise the preparation and review of the manuscripts of this special issue. The issue also reports on the international initiative for global cooperation in training in official statistics, the so called Global Network of Institutions for Statistical Training (GIST), as well as refers to the activities of the International Statistical Literacy Project (ISLP). Several of the manuscripts in this issue are based on presentations from the ISLP webinar (June 2021) and from sessions at the (virtual) ISI World Statistics Conference (July 2021 in The Hague).

A word of thanks also goes to Stefan Schweinfest (Director of the UN Statistics Division) for his guest editorial, emphasizing the importance of training in official statistics and statistical thinking.

2. The sections in this issue, from background and needs for training to specific examples of training initiatives

The first Section 2.1 of this issue deals with foundations and background for the need for training and contains two articles that state the necessity to improve statistical literacy via training in official statistics and a third that introduces the global response, the Global Network of Institutions for Statistical Training (GIST) on this challenge for more effective training. The second Section 2.2 addresses the extended training demand from the perspective of the emerging data science.

The manuscript in the third Section 2.3 describes the Tool for Assessing Statistical Capacity (TASC) as an example of a tool for assessing the need for training and capacity building.

In Section 2.4 six articles give examples of training initiatives in official statistics, varying from the approach in the GIST strengthening the competencies of policy makers for better use of data in public policy design; the design and current situation of training of official statisticians at universities via the European Master in Official Statistics (EMOS); and in the second manuscript the challenge for the EMOS program to adapt to new developments and demands; the fourth and fifth manuscript describe experiences of training in official Statisticians in Africa and Australia. The sixth manuscript in this section describes the efforts and experiences in training in official statistics and statistical literacy in the Greek National Statistical System.

In the fifth Section 2.5 four articles are presented that illustrate a variety of learning and teaching methods for training in official statistics. Finally in the sixth Section 2.6, six manuscripts illustrate how training in a specific statistical domain or theme is organized. This varies from household surveys and census, National Accounts, trade statistics, food and agricultural statistics, computations and IT use, and finally a data skills training model to develop capacity to deliver the SDGs.

2.1. Foundations and needs

In the first manuscript '*Getting the foundations right*' Helen MacGillivray argues, based on the background for official statistics becoming more varied than ever, that, to increase the awareness of the importance of statistical literacy in education and trust in official statistics, the official statistics community needs to be more engaged on foundation and introductory levels. She argues that the move to data science also provides exactly the opportunities to renew the decades-long push for authentic learning that reflects the practice of 'greater statistics' and 'greater data science'.

Walter Radermacher states in his contribution 'Literacy in Statistics for the Public Discourse' that in training in official statistics, increasing the literacy of users of statistics, the starting point should be the purpose for which the statistics are going to be used. This fit for purpose, the public discourse or decision making, does not require necessarily high technical skills, but rather for the citizen, the entrepreneur, the teacher, the student, etc., who wants to understand and apply the indicators of the public statistical sources, to understand enough about the product of the statistical production process and its properties to be able to judge its quality in the light of personal application goals and questions. Using official statistics surely presupposes knowledge and experience in dealing with quantitative information, and this demands practice in interpreting indicators in their context, an assessment of the reliability of sources and processes, experience with graphical representations of statistics (including the flaws that may appear in them) and practice in assessing uncertainties, etc.

In the third contribution to the first section 'How can we better coordinate and make use of statistical training resources? – a few reflections linked to the work of the Global Network of Institutions on Statistical Training (GIST)' Vibeke Oestreich-Nielsen describes how, based on the current situation with respect to the need for and the supply in training in official statistics at national, regional and global level, the international community of official statistics responded to the challenge of improving coordination and sharing experiences between the training providers. The GIST initiative, established in 2018, aims to establish more efficient, effective, and harmonized delivery of training. GIST has developed various tools and guidance materials with this objective in mind, including a gap analysis on statistical training, an online hub for statistical training courses, a course evaluation guidance and, most recently, initial materials for establishment and maintenance of sustainable statistical training programs at national level. It is proposed to move towards a better coordinated and more demand driven approach to training where the national statistical system sets their own priorities for training needs and partners supply these as far as possible.

2.2. Official statistics and data science

In 'Data Science Training for Official Statistics: a New Scientific Paradigm of Information and Knowledge Development in National Statistical Systems' Afshin Ashofteh and Jorge Bravo discuss what to include in the list of skills and competencies considered relevant for those working with big data at National Statistical Organizations (NSOs). They argue that the adoption of new technologies requires new knowledge, methodologies and the upgrading of the quality assurance framework, technology, security, privacy, and legal matters. In the Data Science for Official Statistics Model (DSOSM), the authors graphically summarize the role of data science in statistical business processes. This model illustrates the contribution of all theoretical constructs to the knowledge and skills, the interactions between them, and their current and future importance in official statistics. The empirical validation of this model shows that the core competencies considered relevant for the DSOSM include acquisition and processing capabilities related to statistics, high-frequency data, spatial data, big data, and micro-data/nano-data, in addition to problem-solving skills, spatio-temporal modeling, machine learning, programming with R and SAS software, data visualization using novel technologies, data and statistical literacy, ethics in official statistics, new data methodologies, new data quality tools, standards and frameworks for official statistics.

2.3. Assessing capacity

Mitali Sen and Derek Azar report in '*The Tool for Assessing Statistical Capacity (TASC)*' how this tool, as developed by the U.S. Census Bureau, offers a robust solution for statistical capacity assessments. TASC is an example for several similar tools as they are developed by among others the European Commission (Eurostat), FAO, Paris21 or the World Bank. These tools allow to obtain a comprehensive and objective picture of the capacity of a national statistical institute or similar organizations. The TASC is especially fit for assessing the capacities for household-based census and survey operations at an NSO. The paper describes the foundational framework, modality of measurement, strengths, and limitations of the TASC.

2.4. Training initiatives

Elena Proden in 'Strengthening the competencies of policy makers for better use of data in public policy design' reports that the GIST, as one of the core areas for its work, identified the support to NSOs on statistical literacy of the intended users of official statistics. A dedicated task team concluded that a first priority was to improve the understanding of the needs of the policymakers when it comes to use of data and the related competencies that need to be developed. She describes the results of a statistical literacy survey showing the significant interest in leveraging new data sources and a need to strengthen core competencies related to the effective and accurate use and communication of data by policy-makers. Based on that work three United Nations agencies - United Nations Institute for Training and Research (UNITAR), United Nations Statistics Division (UNSD) and United Nations Economic Commission for Africa (UNECA) – worked together to develop a dedicated e-learning resource to strengthen the core competencies of policy makers to enable better use of data for the achievement of the Sustainable Development Goals (SDGs).

The next two articles focus on the education in official statistics in the European Statistical System. Elwirra Navarre, Heli Lehtimaki, Markus Zwick, Mojca Bavdaz report in 'Education in Official Statistics: A common challenge of providers of official statistics and universities' of two initiatives at the European level to advance education in official statistics. As production environment started to change with increasingly rapid evolution of technologies and new data sources, Eurostat brought to life the European Statistical Training Programme (ESTP) and the European Master in Official Statistics (EMOS). This paper briefly describes the origin and the main characteristics of both models of training, the bridges that they build, and discusses the way ahead.

Pedro Campos and Monica Pratesi in 'EMOS reloaded: unlock the future of education in official statistics with a new partnership with Universities' argue that after 12 years of EMOS experience it is time to open the discussion on the future of EMOS. They especially describe the positive and negative experiences from the perspective of the Universities involved in the EMOS project, the new needs and roles of the NSOs, banks and other possible actors to join the network, and how to unlock the future.

The article by Hugues Kouadio 'Official training Institute of Statistics in Africa: an overview' presents the current situation of training in official statistics as well as the challenges to be faced based on a literature review and curricula and programs offered by statistical training centers in Africa. Hugues Kouadio concludes that, despite efforts in harmonization, there are still differences between language areas and training types as well as that engineering and professional statistical training are better suited to the needs of National Statistical Institutes than university training. He underlines that it is essential that the training of statisticians is strategically thought out so that they can be reactive and dynamic in the face of changes and upheavals they will be confronted with in the context of data revolution and big data. Their training should reinforce the statistical literacy dimension with a view to reduce the gap between producers and users.

Sharleen Forbes and John Harraway in their contribution 'From face-to-face teaching of official statistics to e-learning for the Sustainable Development Goals' report on two initiatives that they were part of. The first was a team that, starting from the hypothesis that many government advisors lack adequate mathematical and statistical skills, developed a National Certificate of Official Statistics comprising four modules taught face-toface with competency-based assessment that included a workplace project, and three free downloadable web apps in official statistics hosted on the International Statistical Literacy Project (ISLP) website. The second initiative they report on is the (UNITAR) e-learning course 'Understanding data and statistics better - for more effective SDG decision making'. In this context a country specific paper-based course was transferred into an international elearning course targeted at the United Nations' SDGs. They describe the challenges as for example how to make the content internationally applicable to an international audience; how to keep material up-to-date and relevant and how to provide appropriate formative and/or summative assessment.

A country based initiative of training in official statistics is given in 'Fostering Statistical Literacy in Greece'. Representing the National Statistical Institute of Greece, ELSTAT, Thanos Thanapoulos and Christina Karamichalako report on an ambitious strategy aiming to foster and promote Statistical Literacy in Greece. The overarching objective is to promote a solid understanding of the basic methodology and tools used in modern official statistics, along with developing a firm awareness of the institutional foundations and core principles of official statistics for the present and future generations of Greek citizens. They report on the action plan structured on four pillars corresponding to the main groups of stakeholders (students, journalists and representatives of the media, to politicians (such as parliamentarians, their advisors, etc.) and to medium and high-ranking officers of the Greek public administration).

2.5. More general approaches

Alison Gibbs, Sotorios Damouras and Steve MacFeely, in 'Training Official Statisticians for Adap-

tive Statistical Practice' look at the implications of the recent developments as described in the intro of this editorial for the training of official statisticians and highlight key knowledge areas for successfully navigating the emerging landscape. They describe the recent period as a period that feels like an evolutionary jump, i.e., a period of rapid and sweeping developments brought about by dramatic shifts in its environment, with repercussions that are felt strongly by official statistics, which operates at the forefront of societal and economic change. They employ the concept of adaptive expertise to help to identify three qualities that support the independent and lifelong development of practicing statisticians, and propose five teaching strategies for fostering these qualities in the classroom.

In 'Modern Teaching Methods in Action in Statistical Classes' Peter Kovacs. Eva Kuruczieki. Klara Lazar. Lilla Liptak and Tamas Racz state, that in order to act as a responsible member of a democratic society, everybody needs statistical literacy and applicable knowledge on how to use statistical data, visualization, and methods. To reach the required level, using real-life problems, modern technologies (digital solutions, online tools) and up-to-date teaching methods tailored to the target audiences is crucial. They argue that the use of real problems, technology and modern teaching methods are more efficient than the traditional frontal teaching method. In large detail they describe several new teaching methods, for instance problem-based learning, project-based learning, thinking-based learning, flipped classroom, gamification, new technological devices, as well as some combinations of different methods and modern technology. One of their main results is that the use of modern teaching approaches leads to more practical and applicable knowledge; however, that their success also depends on both the educators' and the students' time expenditure and attitude.

Anne-Carolina Haensch, Markus Herklotz, Florian Keusch and Frauke Kreuter present in '*The International Program in Survey and Data Science (IPSDS): A Modern Study Program for Working Professionals*' an online educational program targeted towards working professionals involved or interested in data collection and data analysis, including those working in official statistics. The program was accepted into the network of European Masters in Official Statistics (EMOS) in 2021. In the article, the authors summarize the methodological and statistical competencies needed in official statistics and show how IPSDS covers this set of skills. They present the flipped classroom design used for the IPSDS program and demonstrate that it is especially suited for students who are working professionals at the same time.

Finally in this section, Jackie Carter in her article 'Developing a future pipeline of applied social researchers through experiential learning: the case of a data fellows programme' presents an innovative model for developing data and statistical literacy in the undergraduate population through an experiential learning model. This national Q-Step (Quantitative Step change) programme (2013-2021) aimed to create a step change in teaching undergraduate social science students quantitative research skills, and develop a talent pipeline for future careers in applied social research. Jackie Carter especially reports on the development of the undergraduate curriculum and enabled reflection on the skills and software. The paper documents some of the successes and challenges of the programme and shares insight into non-STEM pipelines into social research careers that require data and statistical literacy, She presents as a major advantage of the approach the development of hybrid data analysts, who are able to bring social science subject expertise to their research as well as data and statistical skills.

2.6. Training in specific domains

The final section in this special issue shows applications of training initiatives in a selection of domains and themes. Hugues Kouadio, Kevin McGee, Shelton Kanyanda and Alberto Zezza in 'Development in Household Surveys: Experience from the Centre for Development Data Training Initiative' show the effectiveness of the approach of the Centre for Development Data Training initiative (C4D2 Training Initiative) and state to have a long-term impact on household survey capacity in the Africa region. This initiative is made of several components all of which aim to bolster capacity development in the region. It harmonizes and improves the quality and sustainability of training on household surveys through increased local capacity and greater dissemination of best practices, creates a network among participants and trainers to facilitate knowledge exchange on best practices as well as survey harmonization across countries. Taking advantage of benefits, the initiative should endeavor other regions subject to their interest and embrace the use of virtual and web-based training.

Katri Soinne reports in '*Teaching National Accounts – in-house, outside, and on-line*' on how Statistics Finland uses many different ways for advising and training users of their statistics. In this manuscript the

focus is on training in National Accounts. There have been, beyond the normal courses for users also school visits, university courses, including a MOOC course, material on internet pages. Katri Soinne describes how technological change offers new possibilities for training, but states the necessity to consider the best options for different situations and users.

In their contribution 'New needs and training modalities for the sustainable transfer of know-how on food and agriculture statistics in the COVID era' Pietro Gennari, Valerie Bizier, Cristina Petracchi and Dorian Kalamvrezos Navarro, after situating training within the broader capacity development model of international organizations, analyze in a first section the changing context and nature of training, with particular reference to the experience of FAO as a custodian agency for a large share of SDG indicators. In a second section they trace the new training needs arising from the SDGs and COVID-19, and identify new data-related skills that deserve to be promoted with targeted training. In the third section results of training needs based on FAO's 2019 Statistical Capacity Assessment addressed to SDG focal points in National Statistical Offices are presented. This also provides reflections on the need to better coordinate capacity assessments among international agencies. In the fourth section the authors describe in detail innovative learning solutions and delivery models, with particular reference to the combination of various training modes and tools This section also offers a closer look into the profile of users of FAO e-learning courses and draws key lessons from FAO's experience with this training modality.

Mark Assaf, Markie Muryawan, Barbara D'Andrea and Onno Hoffmeister report in 'Trade Statistics Capacity Building Beyond Borders' about the five years capacity building cooperation project between their international organisations for the formation of skills of producers and users of international trade statistics all over the world, with a focus on developing countries, in the framework of the so called TrainForTrade programme. The training in international trade statistics is based on an innovative (Blended Learning) approach, combining e-learning and face-to-face workshops. The results reviewed show how participation in the program has steadily increased, the success rate remained stable at 80 per cent, and the satisfaction rate risen from 76 to 85 per cent, over the five years of the existence of the program.

EmpoderaData – from the Spanish word empoderar 'to empower' – is a partnership research project between universities in the UK, Brazil, Colombia, US and France and the Data-Pop Alliance. Jackie Carter, Rafael Méndez-Romero, Pete Jones, Vanessa Higgins and Andre Luis Silva in 'EmpoderaData: Sharing a successful work-placement data skills training model within Latin America, to develop capacity to deliver the SDGs' explain how the project builds upon the successful data-driven, research-led paid internship programme in the UK (Q-Step) which enables undergraduate social science students to practise data skills through immersion in the workplace. EmpoderaData aims to build on this experiential learning initiative by developing a data fellowships programme in order to foster and develop data literacy skills in Latin America. They describe the different phases of the project. The first phase focussing on exploring whether the internship model would have relevance and usefulness within the context of three Latin American case study countries (Brazil, Colombia and Mexico). The main conclusions from this first phase are: (1) the most requested data literacy training need is for basic skills, including introductory statistics, foundation data analysis and methodological skills; (2) paid data fellowship models are acknowledged as a useful intervention; and (3) the notion of a 'hybrid' professional to build data literacy capacities for 'social science' purposes provides a practical way forward. In the EmpoderaData Phase 2 project the focus was on Colombia to explore the challenges and opportunities of developing a pilot data fellowship model there. The authors also report on how the EmpoderaData project is exploring working with students studying STEM degrees at the Universidad del Rosario, to improve the application of statistical methods to the social sciences.

In the last contribution to this issue 'Computing in the Statistical Office', Mark van der Loo gives, based on the phases and steps in the Generic Statistical Business Process Model (GSBPM) an overview of computational topics that are of importance to the statistical office. Many of these skills turn out to be of highly technical nature. The article provokes by proposing a wider discussion on the role of technical computing by introducing the role of the Research Software Engineer into the field of official statistics and to propose a six semester bachelor's curriculum in official statistics.

I wish you pleasant readings of these interesting articles.

3. SJIAOS Discussion Platform, discussion on 'The demand and format of Training in Official Statistics'

In August 2019 the Statistical Journal of the IAOS

launched the on-line platform for discussion on topics of significant relevance for official statistics (www. official statistics.com) as part of the SJIAOS website. The discussion platform invites to contribute to important discussions at a time of own choosing. With each release of an issue of the Statistical Journal, a new discussion topic is launched via a leading article or based on a section in the Journal. Each discussion runs for a year and is closed with a concluding commentary by the article author(s).

With the release of this issue of the Journal (September 2021), also the ninth discussion will be opened. This discussion will be asking your comments/opinion on the direction of the 'New Developments in Training in Official Statistics' as discussed in the manuscripts in this issue. It will also be open for contributions that describe experiences from all over the globe of training in official statistics. For more information about the statements and how to react see the introduction into the 'SJIAOS Discussion platform' at the end of this issue.

4. Some words about the next issues (Volume 37(2021), Nr. 4, Vol37(2022, Nr. 1)

The next two issues of the journal are already in full preparation.

The December issue (Vol37 (2021), Nr. 4), will contain several manuscripts based on papers from the ISI World Statistics Conference held virtual in July 2021 in The Hague. The IAOS was very well represented in the Invited and Contributed Paper Sessions. A large number of authors committed to submit their paper/manuscript for consideration to the Journal. Beyond these manuscripts there are still several other manuscripts to be included in this issue, stemming from the side meetings to the 2021 UN Statistical Committee meeting, the 2020 European Statistics Quality Conference as well as the April 2021 Paris21 Annual Meeting. The pipeline of manuscripts in preparation shows a set of contributions on difficult to count but very important population groups like Stateless people, Displaced persons and refugees as well as homeless people. The December 2021 issue will also contain an interview with the incoming IAOS president, Misha Belkindas. It is expected that the December (but probably also the March 2022) issue will release manuscripts from the IAOS Young Statisticians Prize 2020 award winners.

The March 2022 issue (Vol38 (2022), Nr. 1), will start with an interview with Mario Palma the former IAOS president (2017–2019) about his recent book on

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the history of INEGI, the Mexican Statistical Institute. An article by Mario Palma based on his book will also be in this issue. The March issue is further expecting a selection of articles on the FAO and World Bank 50 by 2030 project on agricultural and rural statistics. The issue will further contain manuscripts from the 2021 ISI World Statistics Conference. Also the 2021 Bern UN World Data Forum (UN WDF) might result in some contributions. The March 2022 issue will contain the closing manuscript of the fifth SJIAOS discussion on The future of economic statistics'.

Beyond these issues with a diversity of manuscripts, there are several special issues and sections in preparation, ranging from 'New developments in Statistical Capacity Building' to the 'History of Official Statistics'. The teams are in search for authors and relevant manuscripts, so, do not hesitate to inform me when you have a manuscript or idea for a manuscript for this specials. (pevssjiaos@gmail.com).

Of course there are always slots for other manuscripts; authors are kindly invited to submit their manuscript to: https://www.iospress.nl/journal/statistical-journalof-the-iaos/?tab=submission-of-manuscripts. Conferences are canceled or postponed (or organized virtually. As for many other research fields the cancelation or change of format of the international conferences has an important impact. Many Journals (also SJIAOS) are partly based on the active soliciting by the editors of articles on important and relevant new developments via the participation in conferences, networking and observing presentations listening to peers etc.

Virtual conferences have proven to be a good alternative. In general it is easier to participate in a virtual conference (from home, no traveling costs, etc). However the oversight and flexibility for the editor in chief will be substantially restricted compared to walking around and switching sessions in physical conference, and this risk that Journals will – to a lesser extent than before – be able to catch at an early stage important developments. New ways to solicit manuscripts are experienced. The editorial board of SJIAOS is inviting all readers, the editors and reviewers and other interested not to hesitate to send important papers and manuscripts for review.

https://www.iospress.nl/journal/statistical-journal-of-the-iaos/?tab=submission-of-manuscripts.

5. The COVID-19 pandemic and new ways of soliciting manuscripts

The COVID-19 pandemic has in 2020 and 2021 substantially changed the international conference agenda. Pieter Everaers Editor-in-Chief July 2021 Statistical Journal of the IAOS E-mail: pevssjiaos@gmail.com