

NATIONAL INSTITUTE OF STATISTICAL SCIENCES

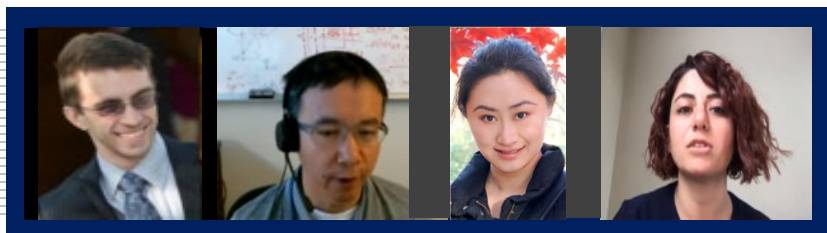
ANNUAL REPORT
JULY 2019 - JUNE 2020

RESEARCH

NISS AFFILIATES



EARLY CAREER RESEARCHERS



VIRTUAL NISS



From the Leadership

For NISS as for everyone else, the past year is divided into two parts: Before Covid-19 and Since Covid-19. The dramatic changes of the final quarter of FY2020 present such a stark contrast that the very substantial successes of the first three quarters seem eons into the past.

Virtual NISS was already quite well established at the start of FY2020 and in the process of rapidly expanding. So NISS was primed to take advantage of the new opportunities for NISS events to reach an international audience and also to meet the need for contemporaneous technical information about the Covid-19 data and models.

NISS finished a dynamic year filled with initiatives and expanded activities as well as additions to NISS personnel.

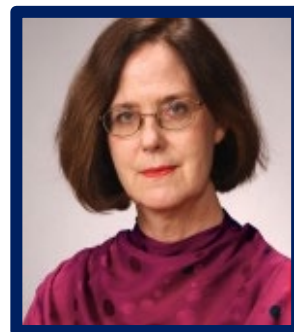
- The network of Affiliates grew with 11 new academic departments joining.
- Research staff were added with Senior Research Fellow Bruce Craig (Purdue) taking over projects and mentoring at NASS and Zach Turner due to arrive, PhD from UC-Santa Barbara in hand.
- New estimation processes developed by past NASS research projects with NISS staff were put into production.
- Funded projects for NCES expanded, led by NISS research teams at NCES.
- NISS received “Exceptional” rating in all categories for NISS-NCES Expert Panels and Research.
- NISS hosted three virtual series of webinars spanning theory to application (Before Covid-19).
- NISS responded to the impact of Covid-19 with hosted and co-hosted virtual series on technical issues plus a tutorial on epidemic modeling.
- NISS has emphasized the engagement of next-generation statisticians with involvement in NISS activities and creation of virtual series targeted at issues of beginning careers.
- NISS has energized its website, increased its media presence and improved its visibility with increased staffing and investment.
- Financial support for NISS increased from Affiliates, from donations and from sponsored research.
- NISS completed the previous year with a clean audit and increases in the total assets and the cash reserves. Rental of both wings of the NISS building eliminated the previous financial drain.

Every year brings unique challenges. In 2020 the impact of Covid-19 has been profound, but NISS has been able to open new possibilities that can enlarge the perspective on the future.



A handwritten signature in blue ink that reads "James L. Rosenberger".

James L. Rosenberger, PhD
Director



A handwritten signature in blue ink that reads "Nell Sedransk".

Nell Sedransk, PhD
Director-DC

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NEW AT NISS

VIRTUAL INSTITUTE

During 2018-2019, NISS inaugurated an array of virtual events and activities that paved the way for rapid adaptation in 2019-2020 of courses, workshops, meet-ups and conferences. Virtual NISS reaches wider audiences and enables more diverse topics with programs designed for participants in different subfields and at different career stages. In 2019-2020, NISS emphasized engagement of next-generation statisticians with programs created for and by early career statisticians. NISS joined the national dialogue on the use of p-values and the emergence of AI techniques for data science. NISS also continued to present topical forums on advances in statistics for the biopharmaceutical industry.

The arrival of Covid-19 found NISS prepared to immediately initiate new virtual programs and events to replace scheduled in-person meetings and to tackle the urgent issues related to coping with Covid-19 and modeling its spread.

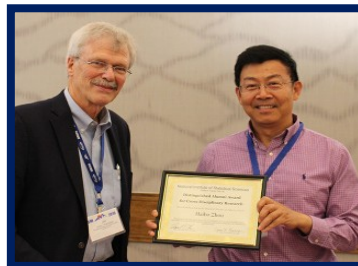
NISS AWARDS



Jeremy M. G. Taylor, Pharmacia Research Professor of Biostatistics, also of Radiation Oncology, Computational Medicine and Bioinformatics and Director of the Center for Cancer Biostatistics at the University of Michigan is the 2019 recipient of the *Jerome Sacks Award for Cross-Disciplinary Research*.

"For his leadership in the field of biostatistics and his major methodological contributions in a wide array of statistical problems of importance in medical science, including fundamental contributions to AIDS/ HIV and cancer research."

Haibo Zhou, Professor of Biostatistics at UNC-Chapel Hill, also Director for the Biostatistics Core at the Center for Environmental Medicine, Asthma and Lung Biology, was recognized with the *2019 NISS Distinguished Alumni Award*.



"Honoring his distinguished career, his contributions as a research biostatistician, especially in environmental statistics, outcome-dependent sampling, and reproductive epidemiology."



Nell Sedransk: Dr. Nell Sedransk, NISS Director of the Washington DC office since 2017, received the *2019 NISS Distinguished Service Award* in recognition of her continuing excellence and dedication to NISS and NISS Affiliates since 2005, serving as NISS Director, providing mentoring for postdocs and research associates, and leading expert panels to address critical issues for the US statistical agencies.

Mary Batchner: Dr. Mary Batchner, statistical consultant for BDS Data Analytics in sampling, research design & survey research, received the *2019 NISS Distinguished Service Award* for outstanding contributions to NISS, serving with constant optimism and confidence in the staff and Board during her two terms on the Board of Trustees and four years as Chair of the Board.

MEMORIAM ~ DR. CLIFFORD H. SPIEGELMAN, 1948 - 2020



Sadly, Cliff Spiegelman passed away unexpectedly in the spring leaving a big hole in every organization he was part of. For NISS especially the loss is keenly felt; Cliff was a longtime friend, a wonderful colleague and collaborator, always a supporter of NISS, and a remarkable role model for all the NISS Research Associates he mentored. Cliff served on the Board of Trustees from 2008 to 2014 and he was one of the most active and effective University Liaisons. He received the 2007 Jerome Sacks Award. As a NISS Senior Fellow, Cliff was a truly gifted mentor. He was a man of intellectual creativity and generosity, of kindness and of unshakeable integrity.

RESEARCH

NISS research addresses problems where data is the key to science and the foundation for evidence-based decision-making and policy. Research results are theoretical, computational and impactful. The real reward from applied research is implementation that leads to improvement of process. Three projects cited in the 2018-2019 NISS Annual Report plus another NISS-NASS project have come to fruition and have changed the processes for official federal estimates.

New methodology is now being used for estimation of hog inventory, developed by a team including NISS Research Associates Luca Sartore and Yijun Wei under senior leadership of Nell Sedransk. Crop yield estimation is now possible and implemented for small areas for the principal crops (corn, wheat, soybeans, cotton) using Bayesian methodology, based on work of a NISS-NASS team with NISS Research Associates Andreea Erciulescu and Lu Chen, led by Balgobin Nandram from Worcester Polytechnic Institute. For the first time county level estimates are now being published, computed from a Bayesian model derived by that same team. Calibration methodology has been adopted across many of the NASS estimates of agricultural products that was derived under the leadership of NISS Senior Fellow and Mentor Cliff Spiegelman with a team of NISS Research Associates and NASS research staff.

PROJECTS WITH IMPACT

Bayesian Models for Design-based Surveys

Bayesian models for survey data allow direct use of information from prior surveys as well as incorporation of information from covariates. This results both in improved precision and for survey information reported at several levels of aggregation in the capability for prediction on a small scale for unsampled units. Previous NISS-NASS projects developed the first generation of theoretical Bayesian models for small area estimation of crops, livestock, and agricultural economic indicators. Current work focuses on the extension of the Bayesian methodology to integrate heterogeneous data types from different sources (surveys, administrative records, meteorological data, remote sensing, agronomic and biological growth functions). As with the initial Bayesian models, the first step is theoretical development of estimates and measures of uncertainty at levels of aggregation from county to national total. Software implementation is expected to require innovation in order to deal with the large amounts of data within the limitations of the computational environment. Testing via simulations and real past-data analyses will follow prior to transferring the new methodology into production.

Lu Chen, NISS Research Fellow, brings the technical expertise to the core elements of this project: develop the theoretical models, create the algorithms, implement and test the software necessary to validate the methodology and move it into production.

Data Fusion for Agricultural Information

Improving statistics for leading agricultural economic indicators and for regularly reported statistics that agriculture, agribusinesses and agricultural economics rely is high priority for NASS (National Agricultural Statistics Service). The goal is to provide estimates on more granulated scales of both space and time. Development of new prediction and estimation processes depends first on increasing the information these draw on and next on skillful and efficient computation to meet the very tight production timeframe - less than a week from (clean) data to published estimates. Data fusion is at the root of these improvements. Integration of agricultural information from all sources, both probability and non-probability data collections is crucial to establishment of cost effective, efficient, precise and timely predictions and estimates of crop yields for the leading crops in the US economy. Technical challenges draw on statistical computation methods, AI, space-time modeling, first to navigate across massive data bases defined over different definitions of primary unit of observation and then to construct and validate estimates from local to national levels of aggregation.

Luca Sartore, NISS Research Fellow, contributes essential skills in statistical and computational aspects of this project from the design phase through the development, testing and implementation to come.

PROJECTS WITH IMPACT (Continued)

Understanding Early Learning using Statistical Methods for Investigating Diversity

The national longitudinal study, ECLS-K2011 (Early Childhood Longitudinal Study – Kindergarten in 2011) measured children’s skills in reading and mathematics at the beginning and again at the end of the kindergarten year. Data at the level of individual students includes both assessment information and some basic demographics. From these data, questions can be addressed about: How much do entering kindergarteners know? How much do they learn during this first school year? Who learns most? In short, the questions that can separate the diversity of US kindergarteners into learning subpopulations based on demographic covariates, teaching situations, language skill while looking simultaneously at the strength of correspondence in learning to read and in learning beginning mathematics. NISS, an expert resource to NCES, has a restricted data license that allows access to detailed student-level data required for research investigations like this one. Preliminary results using tree-based methods show that some subpopulations catch up substantially for an initial deficit compared to their peers. Because focusing on understanding this heterogeneity to improve early childhood education is important to the education sciences research community; it is also important to present the kinds of analytic methods that permit this more granular approach.

NISS Research Fellow Ya Mo, and NISS-DC Director Nell Sedransk are collaborators on this project.

PUBLICATIONS

This year’s NISS research has been disseminated in 15 publications and 8 additional manuscripts submitted plus 12 presentations at statistics and data sciences conferences.

NISS-NCES RESEARCH PROJECTS

Confidentiality and Dissemination of Federal Data

Federal agencies, both within and outside the statistical system, collect large amounts of confidential data about individuals, businesses, and other organizations. Agencies have both a legal and ethical obligation to protect the confidentiality of these data; at the same time they also have an obligation to make these data available to the maximum extent possible for uses that benefit society.

Originally drafted in 1994 and revised in 2005, the Statistical Policy Working Paper #22 has been the principal resource for federal agencies on mechanisms to protect confidentiality while promoting data access. Revision is needed once again that will include new statistical methods, tiered access schema, threats to data security, and new tools such as Secure Multiparty Computations. Additionally, the NCES/IES seeks to develop an online repository for best practices, tools, and templates to assist federal agencies as they disseminate their data both internally and to the public.

Senior NISS Fellow, Peter Meyer, provides expert advice and coordination to support the IES/NCES to develop the revised paper and the repository. While NCES staff will bring substantive knowledge to the collaboration, the technical statistical specifications and solutions will rely on NISS expertise.

Statistical Basis for a New GIS-based Socio-Economic Status Indicator

For decades, eligibility for free/reduced price lunch (FRL) was the surrogate economic indicator used for most education research as well as other research in economics, sociology and other social sciences. Changes in the definitions of eligibility have rendered FRL unworkable as an SES index. NCES seeks to create a new SES measure - not just a poverty index – that would be robust enough to be stable and reliable as populations shift over time.

In particular, NCES proposes to create a geographically-based index that would use federally available data, coupling location with economic information from the American Community Survey and other geographically-based federal data.

Senior NISS Fellow, Chris Wikle, and NISS Research Fellow, Erin Schliep, are providing the technical, statistical and computational issues involved in the development of the index, the construction of statistically-based estimators of uncertainty for the index and the vetting of the index and documentation of its statistical properties.

Standards and Models for Non-Response Bias Analysis and Adjustment

Increasing levels of non-response to NCES (and other federal agency) data collections have highlighted the need for attention to methodology for non-response bias analysis and adjustment (NRBA). The need for clear understanding of best practices is acute across the range of assessments and surveys undertaken by both agencies and contractors.

The first step is to develop a statistically sound strategy incorporating new theory and/or methodology as foundation for best practices for NRBA reflecting advances in statistical methodology. The goal is for NRBA methodology to yield more complete information and decreased uncertainty. The degree of detail possible in NRBA depends on the probability basis for the data collection, i.e., sampling design, the design variables, and other covariates. This project will focus respondents and exclude item non-response.

The second step is to create exemplars using actual survey response/non-response data to accompany NRBA guidelines and to serve as tutorials when data collections are implemented.

NISS Senior Fellow, Rod Little, and NISS Research Fellow, Yajuan Si are serving as the statistical resource. Based on analysis of actual NCES response/non-response data, they will develop a statistically sound strategy and best practices for NRBA and provide implemented examples with detailed annotations.

NISS-NCES TECHNICAL EXPERT PANELS

NISS RATING

An annual review of performance of contractors is conducted by the Department of Education at the close of each contract period. This year NISS performance was uniformly rated “Exceptional” rating (again!) in every rating category for quality and for performance.

NCES REPORT LIBRARY ON NISS WEBSITE

<https://www.niss.org/nces-report-library>

For more than two decades NISS has provided expert technical service to NCES (National Center for Education Statistics) by conducting research, assembling panels and task forces of technical experts in statistics, education and related disciplines, and in holding workshops and training sessions on topics of interest to NCES.



The screenshot shows the NCES Report Library website. At the top is the NISS logo and the NCES logo (National Center for Education Statistics). Below the logos is the title "NCES Report Library". A table lists reports from 2010 to 2020. The table has columns for Year, Month, Title, Document Type, and Direct Links to Texts.

| Year | Month | Title | Document Type | Direct Links to Texts |
|------|---------|---|---------------------------|--|
| 2020 | March | Release of Process Data to Researchers | Expert Panel | Full Text Executive Summary |
| 2019 | October | Making NCES Process Data Available | Expert Panel | Full Text Executive Summary |
| 2019 | March | Improving SES Estimators | Technical Working Session | Full Text Executive Summary |
| 2018 | June | Taking a Longitudinal View of Administrative Education Data | Expert Panel | Full Text Executive Summary |
| 2018 | March | Clear Data Descriptions in NCES Reports | Expert Panel | Full Text Executive Summary |
| 2018 | January | Study and Survey Recruitment Planning and Materials | Expert Panel | Full Text Executive Summary |
| 2018 | January | Roundtable on Implications for Government Surveys | Roundtable | Full Text Executive Summary Invitation to Roundtable |

NCES requested that NISS create easy public access to reports of all these activities and events by creating a library of reports on the NISS website. Topics cover a wide range of disciplines and range from theoretical to application tools. NCES has charged NISS with bringing together experts on statistical theory and methodology, psychometrics, data analysis for evidence-based decisions, analysis tool development for users of NCES public data, economic indicators.

To date, 22 reports appear on the NISS website; another dozen are being prepared for posting to bring the NCES Report Library completely up to date (see Appendix for listing of currently available reports).

TECHNICAL EXPERT PANELS

Remote Sensing to Estimate K-12 Physical Plant

Everyone seems to assume that someone must know what comprises the US K-12 school facilities. But no repository for these data currently exists. Direct data collection would be cost prohibitive; but remote sensing already being done for other purposes might offer a solution. NISS convened an expert panel for NCES to explore the feasibility of using remote sensing data to quantify US space devoted to K-12 schools. This panel identified resources and produced a viable outline for integrating existing government remote sensing data with existing school information at NCES by combining the expertise in IT, in AI and in statistics to estimate current facility measures and to provide a continual process for updating records. Report from this panel is also in the NCES Report Library on the NISS website.

MAKING NCES PROCESS DATA AVAILABLE FOR RESEARCH

<https://www.niss.org/nces-report-library>

The shift to digital technology for assessments, including NAEP (National Assessment of Educational Progress, aka “the nation’s report card”), has opened a new window into how students actually take tests. For each student individually, the electronic test record chronicles the student’s progress, click by click with each action time-stamped. NCES is committed to making data of this kind available for research, and commissioned NISS to bring together technical expert panels to discuss how best to accomplish this.

These new data are the *test process data* that reveal in detail the paths students follow start to end of an online test. From these data researchers can study students’ strategies; some students do go from start to finish. But more follow different paths: some students jump forwards and backwards, some return to items to change answers even while they are proceeding through the test, some students return to check or change answers before submitting while others never look back.

In addition, this is a new opportunity to evaluate the use of assistive technology, to study whether/why some items are biased toward particular test-taking strategies, and to adapt enhanced accommodations to better serve students with special needs.

These new types of data, can serve to enhance understandings of what students know and can do as they engage with technology to problem solve. However the raw data is massive, unwieldy and necessarily lacks a fixed format. For most researchers, the skills of a data base professional are needed to extract and format a usable research data file constructed for the specific research question. Yet many research questions can be addressed using summary variables based on time or event, such as time on a single question, number or returns to a question with/without changing the response. Files of carefully chosen summary variables can open research possibilities to researchers who lack the IT support for creating custom data files.

NISS assembled two separate panels of experts to examine the technological and the substantive issues in making individual student process data accessible. The first panel addressed technical issues for these process data and made recommendations about the creation of (restricted) data files at several levels of detail in addition to the raw data. The second panel addressed substantive issues including the kinds of research questions amenable to analysis of these data and definition of a basic set of new standard summary variables. Reports from both panels are on the NISS website: *Making NCES Process Data Available and Release of Process Data to Researchers*.

In April 2020, NCES announced its first-ever release of process data.

NISS AT JSM

NISS / SAMSI RECEPTION

At its annual JSM Reception NISS celebrates with the NISS community, especially representatives of the Affiliates, past postdoctoral fellows and collaborating researchers and everyone currently affiliated with NISS. Awards are formally presented. The *Jerome Sacks Award for Cross-Disciplinary Research* created to honor Jerry Sacks, who was the first Director of NISS and a distinguished statistician who made significant contributions to the Statistics bridge theory, methodology and collaborative science and engineering. In addition, *NISS Distinguished Service Awards* and the *NISS Distinguished Alumni Award* recognize contributions to NISS and to the statistics community.

NISS AFFILIATES LUNCHEON

<https://www.niss.org/events/niss-affiliates-luncheon-meeting-jsm-2019>

Each year at the opening of JSM, NISS Affiliates meet at lunch. Speakers are invited to discuss emerging issues for the statistics profession. NISS had over 30 attendees at the Affiliates Luncheon.

Real World Evidence and Alternatives to p-Values

Lisa LaVange, Professor and Associate Chair, Biostatistics, UNC-Chapel Hill, 2018 ASA President

Daniel Jeske, Professor, Statistics, UC-Riverside, Editor-in-Chief, The American Statistician

Moderator: **Mimi Kim**, Division Head, Biostatistics, Albert Einstein College of Medicine

NISS JEROME SACKS AWARD INVITED SESSION

Statistical Challenges with Astronomical Data

Statistical Challenges of Pulsar Timing

G. Jogesh Babu, Penn State University, Recipient 2018 Jerome Sacks Award

Time Delay Cosmography Towards The Hubble Constant

Hyungsuk Tak, Notre Dame, **Simon Birrer**, UCLA

Generating Realistic Galaxy Images

Chad M. Schafer, Carnegie Mellon, **Benjamin LeRoy**, Carnegie Mellon

Detecting New Signals under Background Mismodelling

Sara Algeri, Minnesota

Session Chair: **Lingzhou Xue**, Penn State and NISS

NISS PRESENTATIONS OF RESEARCH

Modeling Applications for Backcasting, Nowcasting and Forecasting

Model-Based Crop Yield Forecasting; Covariate Selection and Related Issues

Habtamu Benecha, NASS/USDA; **Luca Sartore**, NISS; **Nathan Cruze**, NASS/USDA

Machine Learning in Science and Industry

A Machine-learning Approach to Extract Remote-sensing Features for Predicting Crop Yield

Luca Sartore, NISS; **Arthur Rosales**, NASS/USDA; **David Johnson**, NASS/USDA;

Mary Frances Dorn, LANL; **Clifford Spiegelman**, Texas A&M

Expanding Data Utility - Issues in Disclosure and Modeling

Using Generative Adversarial Networks to Generate Synthetic Populations

Yijun Wei, NISS; **Luca Sartore**, NISS; **Nell Sedransk**, NISS

Methodological Developments in Social Statistics

Getting a Clear Picture of Students' Writing Performance

Ya Mo, Boise State and NISS; **Nell Sedransk**, NISS

NISS WRITING WORKSHOP FOR EARLY CAREER RESEARCHERS JULY 28 & 30, 2019

INGRAM OLKIN FUND

Ingram Olkin was a giant in the field of statistics and a driving force in the establishment of a national institute of statistics. His impact was profound in the social science and education disciplines as well as the mathematical and statistical sciences. His belief that statistics and the intelligent study of data had the power to address societal issues predated by decades the current emphasis on evidence-based policy decisions.

The Ingram Olkin Fund was established at the National Institute of Statistical Sciences to honor the man and to continue progress along the paths that he blazed.

In 2018, the Ingram Olkin Fund allocated funding to create a series of forums on **Statistics Serving Society**. Each forum is to focus on a current societal issue that might benefit from new or renewed attention from the statistical community. The forums' purpose is to bring the latest innovations in statistical methodology and data science into research collaboration and development of innovative approaches to public policy.

In June 2019, the first forum in this series, Gun Violence – The Statistical Issues, was over-subscribed. The agenda and video of all presentations this meeting is publicly available on the NISS website and a white paper from this forum is in draft. (<https://www.niss.org/news/statisticians-focus-data-related-gun-violence-inaugural-ingram-olkin-forum>)

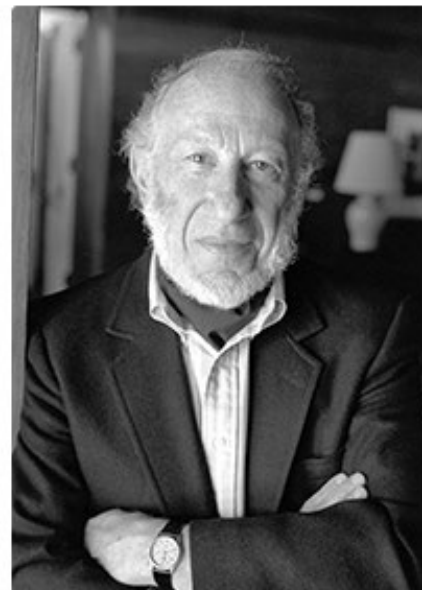
The second forum, The Opioid Crisis – The Statistical Issues, was scheduled for May 2020; but due to Covid-19, this forum is postponed. The award of the grant to the Ingram Olkin Fund to help support this forum has been deferred until May 2021 when the forum can (hopefully) be offered as an in-person event.

With the delay for the second forum, the IOF Committee has developed a six-part virtual series on the contemporary topic of the impact of Covid-19 on scientific research. The first two sessions of Covid-19: Unplanned Clinical Trial Disruptions will take place in July with the remaining four sessions to follow in the fall.

In recent years increasing scrutiny has been directed at problems in estimating treatment effect for a clinical trial that is complicated by treatment switching or individual patient's discontinuation of treatment or early withdrawal of a treatment from study or competing risks. The advent of Covid-19 has been unique in the scope of disruptions across a wide range of clinical trials. These disruptions due to Covid-19 raise a range of questions. The first two sessions in this virtual series serve to expose the statistical issues surrounding unplanned disruptions of clinical trials, thus laying the foundations for the issues to be addressed in detail by subsequent sessions in this series.

<https://www.niss.org/news/ingram-olkin-forum-features-examplesadvice-regarding-unplanned-disruptions-clinical-trials>

- 1 Examples and Advice Regarding Unplanned Clinical Trial Disruption
- 2 New Statistical Challenges for Mediating Disrupted Trials
- 3 Estimands and Missing Data
- 4 Randomization Tests
- 5 Adaptive Designs and Early Stopping
- 6 Adaptive Designs and Sample Size Recalculation



COMMITTEE MEMBERS

David Banks
Michael Brundage
Nancy Flournoy
Amanda Golbeck
Larry Hedges
Tim Hesterberg
Claire Kelling
Jon Kettenring
Sally Morton
Julia Olkin
Greg Ridgeway
Jim Rosenberger
Jerry Sacks
Allan Sampson
Christopher Schmid
Daniel Solomon
Lingzhou Xue
Megan Glenn (Sect.)

AFFILIATES AND PROGRAMS

NISS AFFILIATES

In July 2019, the NISS Affiliate family grew with 11 new Academic Affiliates. This brought the membership to a total of 35 Academic Affiliates, 6 Government Affiliates and 5 Industry Affiliates. Highlights for new Affiliates appear on the NISS website and also in the NISS Newsletter. Welcome to the following academic departments:

| | |
|---|---|
| Bentley, Mathematical Sciences | U Kentucky, Statistics |
| Cornell, Statistics and Data Science | U Minnesota-Twin Cities, Statistics |
| George Mason, Statistics | U North Carolina-Greensboro, Mathematics and Statistics |
| Southern Methodist, Statistical Science | U Texas-Austin, Statistics and Data Sciences |
| UCLA, Biostatistics | Western Michigan, Statistics |
| UCLA, Statistics | |

Affiliate Liaisons and Associate Liaisons (early career statisticians and researchers) are invited to take active roles in NISS by joining NISS committees and helping to organize NISS events.

Membership allows Academic Affiliates to set aside half of the annual fee to support travel and conference funds for NISS-sponsored and co-sponsored Affiliate events. Academic Affiliates use these funds at their discretion to reimburse registration and travel expenses for conferences and also to help defray NISS-co-sponsored conferences that the Affiliate hosts. Being able to use these funds to support registration fees in the Since-Covid period has allowed increased engagement of early-stage graduate student and some advanced undergraduates.

Conference support for NISS-cosponsored events includes advertisement on the NISS website and inclusion in the NISS Newsletter with follow-on reports. During Pre-Covid 2019-2020, eight Academic Affiliates took advantage of this co-sponsorship; five Affiliates with co-sponsored conferences planned for spring and summer 2020 postponed these.

AFFILIATES PROGRAMS

NISS Affiliates programming through the Affiliate Committee started from an annual exciting program at the Affiliates' Luncheon at JSM and an immensely successful previous NISS-Merck Meet-up. Under the leadership of Christy Chuang-Stein, Member of the Board of Trustees and Chair of the Affiliates Committee, the Affiliates Committee has created conferences, workshops, and virtual events series. This year the NISS-Merck webinar series continued with more than 200 participants at each session, and exceeding 500 for the session on Bayesian methods.

The Affiliates Committee developed a second virtual series to focus on important issues for the discipline of statistics and their technical basis of their underpinnings. Participation for the discussion of p-values exceeded the capacity of the virtual mode; simultaneous videocasting via YouTube enabled expansion to an additional audience.

The emphasis on engaging statisticians at the very early stages of their careers led to creation of a third virtual series of nine virtual career fairs focused on different kinds of trajectories statisticians can pursue. Planning for these fairs also involved NISS early career Associate Liaisons who served as moderators.

The effectiveness of the Affiliates Committee under Christy's leadership is also due to the energy of the committee members who conceived of and planned these events and the several conferences and in-person events that were postponed or cancelled.

The earlier development at NISS during 2018-2019 included an array of virtual events and activities that paved the way for rapid adaptation from in-person events, short courses, workshops, meet-ups and conferences. In consequence, NISS established three principal series designed to reach wider audiences with programs designed for participants in different subfields and at different career stages. Based on the enthusiastic response to each of these series, by the end of calendar 2019 further expansion of the program of virtual events was well into planning for the upcoming months.

The *NISS-Merck Meetups on Statistics for Drug Development* is in its third year and regularly attracts 200-350 viewers. This year the *NISS Statistical and Data Science Research Series* drew capacity audiences (over 500) for two webinars addressing addressed principles and practices of use of p-values in applied research and also for another considering the role of AI in drawing inferences from data.

NISS inaugurated *Virtual Career Fairs* to engage next-generation statisticians while still graduate students or fresh-out degree-holders. Then Affiliate's Associate (early career) Liaisons were enlisted to participate in the planning and to chair the sessions. This series of ten virtual career fairs in the academic, industry and government sectors attracted hundreds of next-generation statisticians. Events have acquired extended lifetimes as videos from all of them are posted on the NISS website, often in modular form, for open access.

In the "Since Covid-19 era", a fourth series, *Data Science in Action*, focusing on Covid-19 data and models, was inaugurated by NISS with partners ASA, *Journal of Data Science*, New England Statistical Society and University of Connecticut Statistics/Data Science Lab to answer the needs of the technical statistics and data science communities for information.

NISS also is part of a consortium that sponsors *Mathematical Foundations of Data Science*, a virtual webinar series focused on advances in the mathematical and statistical sciences that prompt new approaches to solving hard problems.

The arrival of Covid-19 upended all plans for in-person events, resulting in postponements and conversions to virtual mode. Stand-alone events and workshops have converted to exclusively online participation. Remote access has brought the benefit that audiences for NISS events are now international, attendance numbering from the tens (for events restricted to Affiliates) to the hundreds.

NISS-MERCK VIRTUAL MEET-UP SERIES

<https://www.niss.org/meet-recordings>

| | | Participants |
|-----------------|--|--------------|
| 10 September | "Subgroup Analysis" | |
| | ♦ Moderator: Dan Holder , Merck ♦ Speakers: Ilya Lipkovich , Eli Lilly; Rob Hemmings , Consilium Salmonson & Hemmings; Stephen Ruberg , Analytix Thinking | 248 |
| 15 January | "Adaptive Trials for Drug Development" | |
| | ♦ Moderator: Dan Holder , Merck ♦ Speakers: Vladimir Dragalin , Janssen; QiQi Deng , Boehringer-Ingelheim; Scott Berry , Berry Consultants | 250 |
| 27 April | "Bayesian Statistics in Drug Development" | |
| | ♦ Moderator: Dan Holder , Merck ♦ Speakers: Frank Harrell , Vanderbilt; Amy Xia , Amgen; Telba Irony , FDA | 586 |

NISS VIRTUAL CAREER FAIRS

ACADEMIC CAREERS

<https://www.niss.org/meet-recordings>

Participants

| | | |
|-------------|---|----|
| 23 April | Succeeding as a Statistician in Academia: Things I Wish I Knew at the Start of My Career <ul style="list-style-type: none">♦ Moderator: Piaomu Liu, Bentley♦ Panel: Richard de Veaux, Williams College; Jerry Reiter, Duke; Bhramar Mukherjee, U Michigan | 82 |
|-------------|---|----|

INDUSTRY CAREERS

| | | |
|-----------------|--|-----|
| 26 September | Tips for Working in Tech, Statistics/Analytics Careers <ul style="list-style-type: none">♦ Chair: Sam Woolford, Bentley♦ Panel: Tim Hesterberg, Google; Dan Holder, Merck; Yanling Zuo, MiniTab; Fang Chen, SAS; Steven Cohen, RTI Intl. | 231 |
| 6 December | Opportunities in Banking & Marketing Sectors <ul style="list-style-type: none">♦ Moderator: Esra Kurum, UC-Riverside♦ Panel: Victor Lo, Fidelity Investments; Daniel Tu, Citizens Financial; Danny Jin, Epsilon | 36 |
| 19 February | Advice and Insights: Hiring, Interviews, Employment Prospects, and Career Paths <ul style="list-style-type: none">♦ Moderator: Ya Su, U Kentucky♦ Panel: Ming Li, Amazon; Subho Majumdar, AT&T Labs, Theodore Lystig, Medtronic; Bonnie Ghosh-Dastidar, RAND Statistics | 136 |
| 3 June | Insights and Opportunities for Beginning Statisticians/Data Scientists in BioPharm Industries <ul style="list-style-type: none">♦ Moderator: Kevin Lee, Western Michigan U♦ Panel: Rakhi Kiralu, PPD; Jonathan Lisic, Cigna; Richard Zink, TARGET PharmaSolutions | 95 |

GOVERNMENT CAREERS

| | | |
|---------------|--|----|
| 08 January | Opportunities and Research in US Federal Statistical Agencies <ul style="list-style-type: none">♦ Moderator: Nathan Cruze, NASS♦ Panel: Wendy Martinez, BLS; Jonah Wong, US Census; Jeff Bailey, NASS | 83 |
| 11 March | Career Paths in Three Health Related Government Agencies <ul style="list-style-type: none">♦ Moderator: Esra Kurum, UC-Riverside♦ Panel: Simone Gray, CDC; Sylva Collins, FDA; Paul Albert, NIH | 61 |
| 22 May | Agencies, the Work and What Prospective Applicants Need to Know <ul style="list-style-type: none">♦ Moderator: Nathan Cruze, NASS♦ Panel: Dean Follmann, NIH/NIAID; Greg Lawson, EIA; Jennifer Parker, CDC | 48 |

WORKSHOPS AND TUTORIALS

WRITING WORKSHOP FOR EARLY CAREER RESEARCHERS

NISS has hosted the Writing Workshop for Early Career Researchers since 2007, with co-sponsorship from ASA plus a growing group of professional statistical societies. In 2019, Lee Wilkinson took over the central tutorial from Nell Sedransk who, with Keith Crank, inaugurated the Writing Workshop and served in that role for 12 years. Over the Workshop's lifetime, approximately XX researchers in the first stages of their careers have participated in the Writing Workshop.

While the Workshop has remained relevant by gradually changing, the basic elements remain. So in 2019, each of the 27 participants submitted a recent writing sample, usually an early draft manuscript for a journal article or for a research grant proposal. Then one of the YY senior mentors, usually a former journal editor or program officer, was paired with each participant to critique the submitted material. At the Workshop, an opening tutorial and special sessions on publication were followed with one-on-one meetings of participants with their mentors to discuss specific comments, and to analyze writing habits and techniques to help the participant improve future writing.

WRITING WORKSHOP SPEAKERS AND MENTORS 2019

| | |
|----------------------|---|
| Naomi S. Altman | Professor of Statistics, Pennsylvania State U |
| Keith Crank | Program Officer, National Science Foundation, retired |
| Cheryl Eavey | Program Director, Methodology, Measurement, and Statistics, SBE, NSF Foundation |
| Susan S. Ellenberg | Professor, Biostatistics, U Pennsylvania Perelman School of Medicine |
| Daniel L. Gillen | NIH BMRD Study Section Chair, Chair and Professor, Statistics, UC-Irvine |
| Xuming He | Chair and H.C. Carver Professor, Statistics, U Michigan |
| Tim Hesterberg | Senior Statistician, Google |
| Peter Imrey | Professor, Medicine, Cleveland Clinic |
| Nicholas P. Jewell | Professor, Biostatistics and Epidemiology, London School of Hygiene & Tropical Medicine, Imperial College and Professor, UC-Berkley |
| Nicole Lazar | Professor, Statistics, U Georgia |
| Edsel A. Pena | Professor, Statistics, U South Carolina |
| David M. Rocke | Distinguished Professor, Biostatistics, UC-Davis |
| Ali Shojaie | Associate Professor, Biostatistics, U Washington |
| Aleksandra Slavković | Professor and Associate Dean, Statistics, Pennsylvania State U |
| Hal S. Stern | Chancellor's Professor, Statistics, UC-Irvine |
| Branislav Vidakovic | Program Director, Statistics, MPS/DMS, NSF; Professor, ISE, Georgia Tech |
| Leland Wilkinson | Chief Scientist, H2O.ai and Adjunct Professor, Computer Science, U Illinois at Chicago |
| Tian Zheng | Professor, Statistics and Associate Director, Education, Data Science Institute, Columbia U |

WORKSHOPS AND TUTORIALS (Continued)

R & SPARK SHORT COURSE

<https://www.niss.org/events/r-spark-tools-data-science-workflows-2>

| | R & Spark: Tools for Data Science Workflows | Participants |
|----------------|--|--------------|
| 25-26 November | ♦ Instructor: E. James Harner , West Virginia U Bureau of Labor Statistics, Washington, DC | 16 |

NISS offered the **R & Spark: Tools for Data Science Workflows Workshop** for the 7th time in 2019. This workshop meets the NISS goal of making new technologies quickly accessible to statisticians, especially to NISS Affiliates. The goal for this workshop is to expand statisticians' data analysis skills, tools, and workflows in a natural way applicable to Big Data. This popular two-day workshop has been given in an academic setting (UC-Riverside), in four open-invitation and federal government settings, and twice at statistical science institutes in the US and in Canada (SAMSI and CANSSI).

Spark expands the use of R to Big Data by moving from single-core execution to multiple processors thereby increasing the effectiveness, efficiency and capacity for required to scale up for Big Data and to apply to streaming data. Coupling Spark with R enables modeling, classification and clustering, dimension reduction, and other analyses via supervised and unsupervised learning methods.

Professor E. James Harner, Emeritus in the Statistics Department at West Virginia University, developed and conducted this workshop for NISS.

R & Spark courses given by Professor E. James Harner:

Sept 14-15, 2017 Washington, DC
Sept 30-Oct 1, 2017 Riverside, CA
Apr 12-13, 2018 CANSSI, Toronto, Canada
May 30-31, 2018 Washington, DC

Sept 21-22, 2018 SAMSI, Research Triangle Park, NC
Feb 25-26, 2019 Washington, DC
Nov 25-26, 2019 Washington, DC

TUTORIAL ON SIR METHODS

<https://www.niss.org/news/susceptible-infected-recovered-sir-modeling-focus-nissasa-tutorial>

| | NISS/ASA Tutorial on Susceptible-Infected-Recovered (SIR) Modeling | Participants |
|---------|--|--------------|
| 30 June | ♦ Instructor: Ottar Bjornstad , Distinguished Professor of Entomology and Biology and the J. Lloyd & Dorothy Foehr Huck Chair of Epidemiology, Pennsylvania State U | 120+ |

National Institute of Statistical Sciences (NISS) and the American Statistical Association Section on Statistics in Epidemiology (ASA-SIE) teamed up to co-sponsor a special two-hour Tutorial on SIR Methods. The Susceptible-Infected-Recovered (SIR) model is extensively used by scientists to study the infectious disease dynamics of the Covid-19 epidemic as a basis for guiding public health policy decisions to mitigate the impact of the disease. NISS and the ASA Section on Statistics in Epidemiology recognized the need of statisticians world-wide to understand the technical basis and the data requirements for this model that dominates media reports. This virtual tutorial was presented to familiarize statisticians and other quantitative scientists with SIR methods for describing and predicting the patterns, the timing and the critical factors in disease spread. The tutorial began with background then moved on to theory to practice and on to examples, including Covid-19.

Professor Ottar Bjornstad, PhD, who presented the tutorial, conducts research in mathematical and computational aspects of population ecology and population dynamics at the Pennsylvania State University. The video from this tutorial is available on the NISS website.

VIRTUAL EVENTS

NISS ACADEMIC AND RESEARCH WEBINAR SERIES

<https://www.niss.org/meet-recordings>

| | | Participants |
|--------------|--|--------------|
| 27 September | NISS Online Webinar: What's in a Name – Data Analytics, Machine Learning, Artificial Intelligence and What Else? ♦ Moderator: Dan Jeske , UC-Riverside ♦ Speakers: Victor Lo , Fidelity Investments; Hal Stern , UC-Irvine; Lee Wilkinson , H2O; Vincent Granville , Data Science Central | 504 |
| 19 November | Digging Deeper Into p-Values: NISS Online Webinar Follow-up with Three Authors ♦ Moderator: Dan Jeske , UC-Riverside ♦ Speakers: Jim Berger , Duke; Sander Greenland , UCLA; Robert Matthews , Aston University | 642 |
| 31 October | Academic Affiliate Meet-up: Applying for a Statistics Research Grant: Essential Tips for Success ♦ Moderator: Mimi Kim , Professor and Head, Division of Biostatistics, Albert Einstein College of Medicine ♦ Speakers: Karen Messer , Professor and Chief, Division of Biostatistics and Bioinformatics, UC-San Diego School of Medicine ♦ Yehua Li , Professor, Department of Statistics, UC-Riverside ♦ Sujit Ghosh , Professor, Department of Statistics, NCSU | 152 |
| 7 February | NISS Academic Affiliate Meet-up: Collaborations Between Academia and Industry ♦ Moderator: Sumanta Basu , Cornell ♦ Speakers: Rebecca Doerge , Carnegie Mellon; Sam Woolford , Bentley; L.J. Wei , Harvard; Victor Lo , Fidelity Investments | 49 |

CO-SPONSORED SERIES MATHEMATICAL FOUNDATIONS OF DATA SCIENCE

<https://sites.google.com/view/seminarmathdatascience/home?authuser=0>

| | |
|---------|--|
| 12 May | Ultra-Sparse Models of Multiway Data Speaker: Alfred O. Hero , U Michigan |
| 19 May | Statistical Inference on Membership Profiles in Large Network Speaker: Jianqing Fan , Princeton |
| 26 May | On the Statistical Complexity of Reinforcement Learning Speaker: Mengdi Wang , Princeton |
| 2 June | Distributionally Robust Optimization, Online Linear Programming and Markets for Public-Good Allocations Speaker: Yinyu Ye , Stanford |
| 9 June | From Stochastic Frank-Wolfe to the Ellipsoid Method: Recent Progress on Practical Optimization in Data Science (the Frank-Wolfe Method) and Theoretical Optimization (the Ellipsoid Method) Speaker: Robert M. Freund , MIT |
| 16 June | Representation, Modeling, and Gradient Based Optimization in Reinforcement Learning Speaker: Sham Kakade , U Washington, Seattle |
| 23 June | Nonparametric Active Learning with Kernels and Neural Networks Speaker: Robert Nowak , U Wisconsin, Madison |

EVENTS IN RESPONSE TO THE OUTBREAK OF COVID-19

NISS - ASA SERIES ON COVID-19

<https://www.niss.org/events/nissasa-webinar-covid-19-and-role-modeling>

NISS/ASA Webinar on COVID-19 and the Role of Modeling

- 5 ♦ **Moderator: Wendy Martinez**, President, American Statistical Association
- May "The Exponential Power of Now (and Yesterday?)" ♦ **Nick Jewell**, UC-Berkeley & Imperial College, London and **Britta Jewell**, Imperial College, London ♦ "Statistical Methods and Modeling In Response to COVID-19 at NIAID" ♦ **Dean Follmann**, NIH/NIAID ♦ "Projecting the Transmission Dynamics of SARS-CoV-2 through the Post-pandemic Period: Seasonality and Modeling" ♦ **Marc Lipsitch**, Harvard

CO-SPONSORED SERIES DATA SCIENCE IN ACTION

UConn https://statds.org/events/webinar_dsa2020/index.html

| | |
|-------------|---|
| 17 April | An epidemiological forecast model to assess the effect of social distancing on flattening the coronavirus curve in the USA ♦ Speaker: Peter X. Song , U Michigan |
| 24 April | Tracking reproductivity of COVID-19 pandemic with varying coefficient epidemiological models ♦ Speaker: Song Xi Chen , Peking U |
| 1 May | COVID-19 US dashboard: Spatiotemporal dynamics, nowcasting and forecasting of COVID-19 in the United States ♦ Speaker: Lily Wang , Iowa State |
| 8 May | Estimation of incubation period distribution of COVID-19 using disease onset forward time: A novel cross-sectional and forward follow-up study ♦ Speaker: Jing Qin , National Institute of Allergy and Infectious Diseases (NIAID) |
| 15 May | COVID-19: Analytic studies and opportunities for outside of epidemiology ♦ Speaker: David Corliss , Peace-Work |
| 22 May | Predictions, role of interventions & implications of a national lockdown on the COVID-19 outbreak in India ♦ Speakers: COV-IND-19 Study Group: Bhramar Mukherjee , U Michigan; Debashree Ray , Johns Hopkins; Rupam Bhattacharyya , U Michigan; Maxwell Salvatore , U Michigan |
| 29 May | Can the reported COVID-19 data tell us the truth? Scrutinizing the data from the measurement error models perspective ♦ Speaker: Grace Yi , U Western Ontario |
| 5 June | A biostatistician's encounter with COVID-19 in New York City ♦ Speaker: Usha Govindarajulu , Icahn School of Medicine, Mount Sinai |
| 12 June | Statistics and modeling in response to COVID-19 at NIAID ♦ Speaker: Dean Follmann , National Institute of Allergy and Infectious Diseases (NIAID) |
| 19 June | A statistical transmission model for COVID-19 outbreak with adjustment of external factors ♦ Speaker: Yifan Zhu , Fred Hutchinson Cancer Research Center |
| 26 June | The opportunities and challenges of healthcare systems in the COVID-19 era ♦ Speaker: Kimia Ghobadi , Johns Hopkins |

RESEARCHERS

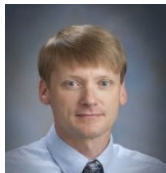
SENIOR FELLOWS AND SENIOR MENTORS



Jerome Sacks
Director Emeritus
NISS 1991-2000



Alan F. Karr
Director Emeritus
NISS 2000-2014



Jay Breidt
Senior Fellow
Colorado State U



Bruce Craig
Senior Fellow
Purdue



Steven Glazerman
Senior Fellow
Mathematica



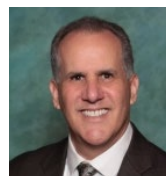
Rod Little
Senior Fellow
U Michigan



Peter Meyer
Senior Fellow
NORC U Chicago



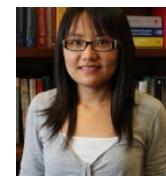
Jean Opsomer
Senior Fellow
Colorado State U



Nathaniel Schenker
Senior Fellow
Retired (NCHS)



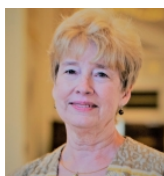
Erin Schliep
Research Fellow
U Missouri



Yajuan Si
Research Fellow
U Michigan



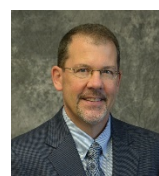
Cliff Spiegelman
Senior Fellow
Texas A&M



S. Lynne Stokes
Senior Fellow
S. Methodist U



Xia Wang
Research Fellow
U Cincinnati



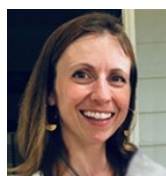
Christopher Wikle
Senior Fellow
U Missouri



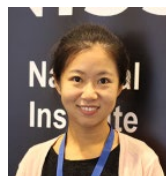
Recai M. Yucel
Senior Fellow
U at Albany

RESEARCH ASSOCIATES AND FELLOWS

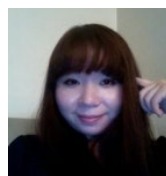
*"A different perspective of what type of problems to tackle and how to tackle them.
In that sense it had a profound long-term effect on my career."*



Alexandra Brown



Lu Chen



Ya Mo



Luca Sartore



Yijun 'Frank' Wei

*"Be part of an interdisciplinary team . . . team-based research makes the statistician
an equal player at the table and recognizes the intellectual contributions."*

BUSINESS

FUNDING SOURCES

- NASS
- NCES
- NSF
- Affiliates – Fees
- Workshops
- NC Building Rental

DONATIONS

<https://www.niss.org/about/contribute-niss>

- Cash donations were received and often matched by corporations and organizations with matching policies.
- Donations in kind were also received in the form of software and services from organizations and individuals.

IOF DONATIONS

The Ingram Olkin Fund accepts donations to be used for IOF events. In addition to donations during 2019-2020, a grant to support *Impact of the Opioid Epidemic* was deferred until 2021 when the conference was postponed due to Covid-19.

NORTH CAROLINA BUILDING

NISS anticipated a sale of the building in late 2019, with the tenant (Teledyne) in place in the larger wing (the original NISS building). However, with real, potential and/or perceived issues raised regarding TUCASI approval and the ground lease, purchasers for the NISS Building withdrew their offer during the due diligence period.

Subsequently, Teledyne has expanded its rental space to include the upper floor of the newer wing (“SAMSI space”), resulting in revenue more than sufficient to offset expenses including mortgage payments. For its closeout year, starting in June 2020, SAMSI is renting a limited section of the remaining space. NISS continues to pursue potential purchasers.

AUDIT

In the second half of 2019, a formal audit of 2018-2019 was conducted by Mark S. Danes, auditor who specializes in non-profit organizations. NISS received a completely clean audit. The audit was passed to the Finance Committee and then to the full Board of Trustees and Members of the Corporation at the annual meeting in November 2019. NISS uses accrual accounting.

PARTNERS

Professional societies, universities, industry and other groups co-sponsored and provided partial support for NISS events and workshops.

Professional Societies

ASA • ENAR • ICSA • IISA • IMS • KISS • SSC • WNAR • ASA Statistics in Epidemiology Section

Industry and Government Partners

Merck • BLS • Google • SAS

Academic Organizations

Pennsylvania State University • University of Connecticut

Institutes

SAMSI • CANSSI

NISS FINANCIAL STATEMENT

STATEMENT OF ASSETS, LIABILITIES AND NET ASSETS

National Institute of Statistical Sciences Statement of Assets, Liabilities and Net Assets

| | <u>Jun 30, 20</u> | <u>Jun 30, 19</u> | <u>\$ Change</u> |
|--------------------------------|-------------------|-------------------|------------------|
| ASSETS | | | |
| Current Assets | | | |
| Checking/Savings | | | |
| Checking - FCB | 358,338 | 120,961 | 237,377 |
| Total Checking/Savings | 358,338 | 120,961 | 237,377 |
| Accounts Receivable | | | |
| Grant and Contract Receivables | 186,221 | 207,247 | (21,026) |
| Affiliate Program Receivables | (52,000) | 15,241 | (67,241) |
| Rental Income Receivable | (37,290) | (30,694) | (6,596) |
| Workshop Receivables | 1,000 | 9,035 | (8,035) |
| Total Accounts Receivable | 97,931 | 200,829 | (102,898) |
| Other Current Assets | | | |
| Prepaid Expenses | 958 | 0 | 958 |
| Sales Tax Receivable | 1,786 | 3,480 | (1,694) |
| Undeposited Funds | 0 | 300 | (300) |
| Total Other Current Assets | 2,744 | 3,780 | (1,036) |
| Total Current Assets | 459,013 | 325,570 | 133,443 |
| Fixed Assets | | | |
| Land | 1,350,000 | 1,350,000 | 0 |
| Equipment | 69,921 | 65,762 | 4,159 |
| Furniture & Fixtures | 7,326 | 7,326 | 0 |
| Building - Construction | 2,456,778 | 2,456,778 | 0 |
| Building - Improvements | 183,811 | 183,811 | 0 |
| Building - Addition | 4,342,915 | 4,342,915 | 0 |
| Website | 97,000 | 97,000 | 0 |
| Accumulated Depreciation | (2,898,448) | (2,746,226) | (152,222) |
| Lease Closing Costs | 205,480 | 205,480 | 0 |
| Accumulated Amortization | (33,567) | (12,552) | (21,015) |
| Total Fixed Assets | 5,781,216 | 5,950,294 | (169,078) |
| Other Assets | | | |
| Security Deposits | 5,400 | 5,400 | 0 |
| Total Other Assets | 5,400 | 5,400 | 0 |
| TOTAL ASSETS | <u>6,245,629</u> | <u>6,281,264</u> | <u>(35,635)</u> |

STATEMENT OF ASSETS, LIABILITIES AND NET ASSETS (Continued)

National Institute of Statistical Sciences
Statement of Assets, Liabilities and Net Assets

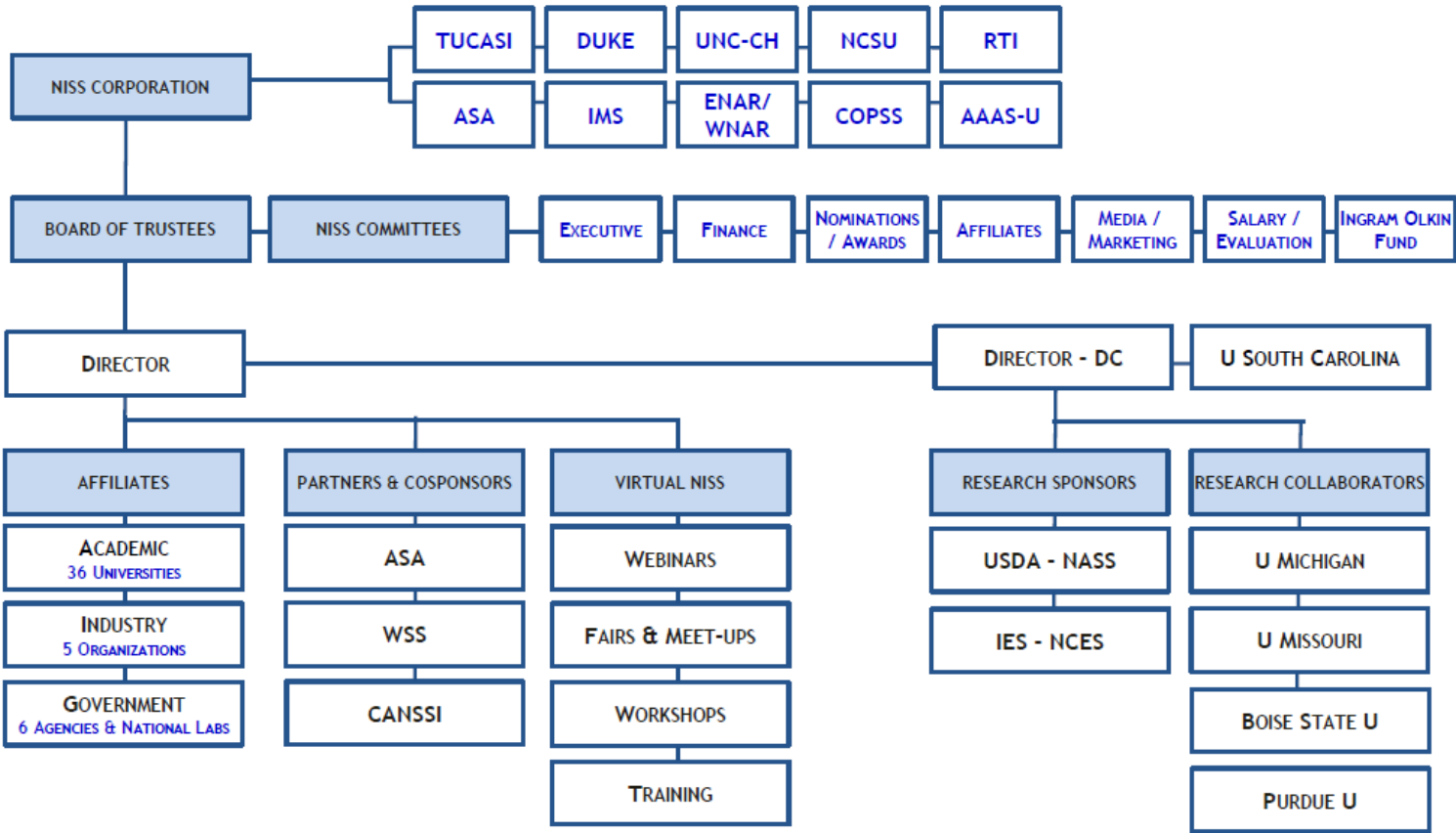
| | Jun 30, 20 | Jun 30, 19 | \$ Change |
|---------------------------------------|------------------|------------------|-----------------|
| LIABILITIES & EQUITY | | | |
| Liabilities | | | |
| Current Liabilities | | | |
| Accounts Payable | | | |
| Accounts Payable | 2,521 | 37,850 | (35,329) |
| Total Accounts Payable | 2,521 | 37,850 | (35,329) |
| Credit Cards | | | |
| FCB Visa | | | |
| FCB Visa- Candyce | 23,249 | 131 | 23,118 |
| FCB Visa- Jim | 523 | 93 | 430 |
| FCB Visa- Nell | 2,614 | 574 | 2,040 |
| FCB Visa- Randy | 37,067 | 18,686 | 18,381 |
| FCB Visa - Other | (60,684) | (387) | (60,297) |
| Total FCB Visa | 2,769 | 19,097 | (16,328) |
| Total Credit Cards | 2,769 | 19,097 | (16,328) |
| Other Current Liabilities | | | |
| Accrued Vacation Leave | 18,785 | 15,944 | 2,841 |
| Med 125 Withheld | (1) | (1,271) | 1,270 |
| FSA Withheld | (4) | (500) | 496 |
| 401K Payable | (131) | 0 | (131) |
| Total Other Current Liabilities | 18,649 | 14,173 | 4,476 |
| Total Current Liabilities | 23,939 | 71,120 | (47,181) |
| Long Term Liabilities | | | |
| Deferred Affiliate Rev. (Rest.) | 90,334 | 104,740 | (14,406) |
| Deferred Base Rent Revenue | (193,317) | (120,394) | (72,923) |
| 250K Lease Loan | 176,892 | 223,676 | (46,784) |
| Construction Loan | 2,367,046 | 2,412,337 | (45,291) |
| Total Long Term Liabilities | 2,440,955 | 2,620,359 | (179,404) |
| Total Liabilities | 2,464,894 | 2,691,479 | (226,585) |
| Equity | | | |
| Net Assets | 3,552,060 | 3,552,060 | 0 |
| Unrestricted Net Assets | 37,723 | (143,983) | 181,706 |
| Net Income | 190,951 | 181,706 | 9,245 |
| Total Equity | 3,780,734 | 3,589,783 | 190,951 |
| TOTAL LIABILITIES & EQUITY | 6,245,628 | 6,281,262 | (35,634) |

APPENDICES

- A. NISS Organization Chart
- B. NISS Governance and Committee Membership
- C. NISS Affiliates
- D. NISS Events
- E. NISS NCES Report Library
- F. NISS Bibliography
- G. NISS Speakers Gallery

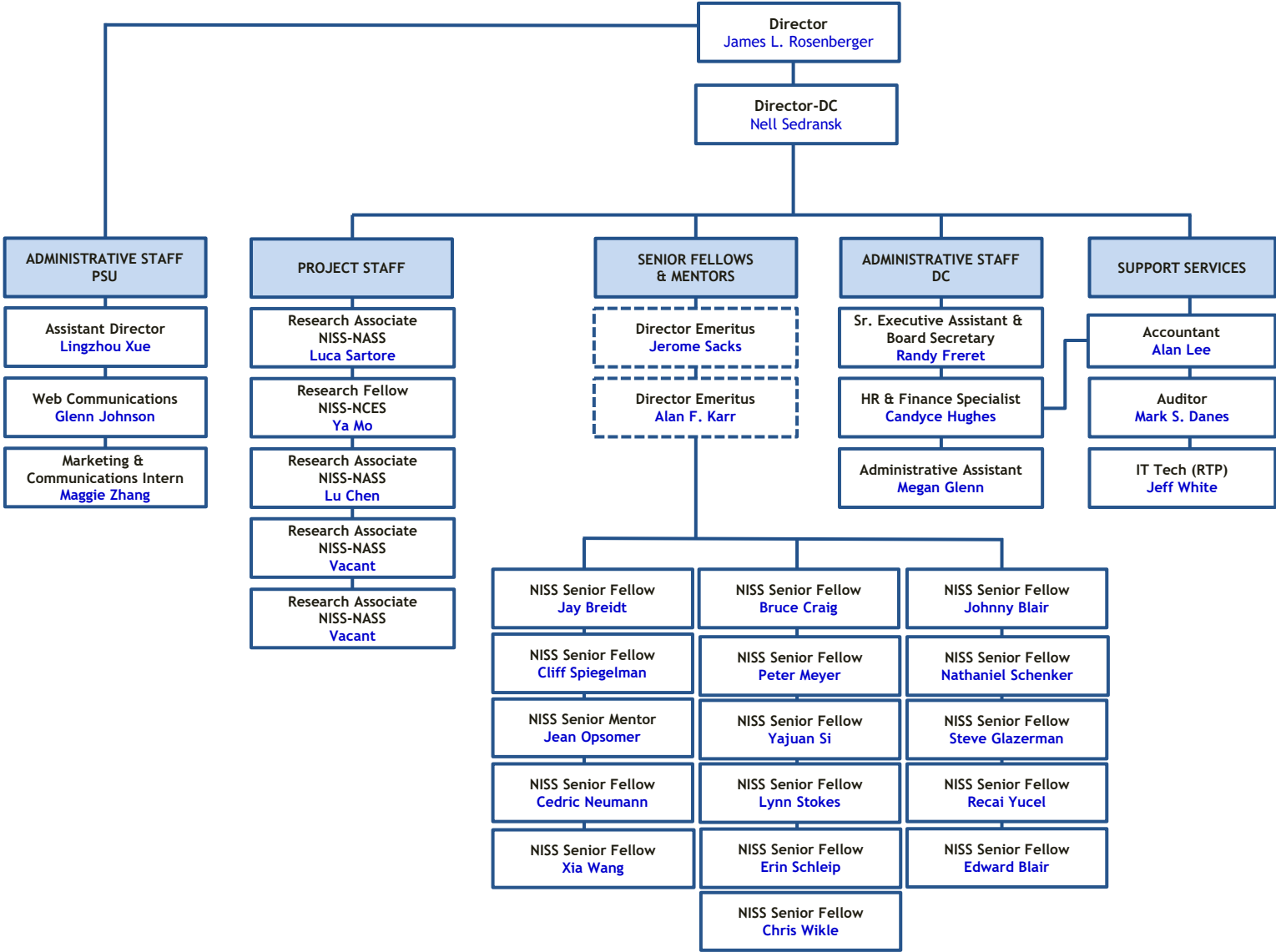
NISS ORGANIZATION CHART I

Organizational Chart
As of June 30, 2020



NISS ORGANIZATION CHART II

Organizational Chart
As of June 30, 2020



NISS GOVERNANCE

<https://www.niss.org/people/board-of-trustees>

Members of the Corporation

AAAS Section U
ASA
COPSS
Duke University
IMS
NCSU
RTI International
TUCASI
UNC-CH
ENAR / WNAR

Members of the NISS Board

Nicholas Jewell, UC, Berkeley
Ronald L. Wasserstein, ASA
Mimi Kim, Albert Einstein
Jerry Reiter, Duke
James Booth, Cornell
Alyson Wilson, NCSU
Steve Cohen, RTI
Scott Levitan, RTF
Jan Hannig, UNC-CH
Kate Crespi, UCLA

Elected Members of the NISS Board of Trustees

Raymond P. Bain, Chair, Merck
Christy Chuang-Stein, Vice Chair
Tim Hesterberg, Google
Gabriel Huerta, Sandia
Phil Kott, RTI
Victor S.Y. Lo, Fidelity
Bhramar Mukherjee, U Michigan
Victoria Stodden, U Illinois, U-C
Leland Wilkinson, H₂O.ai
Sam Woolford, Bentley
Tommy Wright, Census Bureau

NISS BOARD OF TRUSTEES COMMITTEES FOR 2019-2020

EXECUTIVE: Raymond Bain (Chair), Christy Chuang-Stein (Vice-Chair), Mary Batchner, James Booth, Tim Hesterberg, Gabriel Huerta, Bhramar Mukherjee, Hal Stern, Leland Wilkinson, James Rosenberger (Ex-Officio), Nell Sedransk (Ex-Officio)

AFFILIATES: Christy Chuang-Stein (Chair), Nathan Cruze, Joel Dubin, Harold Gomes, Dan Holder, Dan Jeske, Glenn Johnson, Mimi Kim, Phil Kott, Esra Kurum, Victor Lo, Sam Woolford, Lingzhou Xue, James Rosenberger (Ex-Officio)

AFFILIATES - RECRUITING & RETENTION: Sam Woolford (Chair), Lingzhou Xue, James Rosenberger (Ex-Officio)

AWARDS & NOMINATIONS: James Booth (Chair), Christy Chuang-Stein, Tim Hesterberg, Hal Stern, James Rosenberger (Ex-Officio)

COMMUNICATIONS & MARKETING: Tim Hesterberg (Chair), Richard Zink, Jan Hannig, Dan Holder, Nell Sedransk, Ron Wasserstein, Randy Freret, Glenn Johnson (Ex-Officio)

FINANCE: Mary Batchner (Chair), Ray Bain, Ed Cohen, Ron Wasserstein, Alyson Wilson, James Rosenberger (Ex-Officio), Candyce Hughes (Ex-Officio), Nell Sedransk (Ex-Officio), Alan Lee (Consultant)

INGRAM OLKIN FUND COMMITTEE: Nancy Flournoy (Chair), David L. Banks, Larry Hedges, Tim Hesterberg, Claire Kelling, Sally Morton, James Rosenberger, Jerry Sacks, Allan Sampson, Christopher Schmid, Lingzhou Xue

SALARY & EVALUATION: Raymond Bain (Chair)

NISS AFFILIATES

NEW AFFILIATES

Bentley University, Department of Mathematical Sciences
 Cornell University, Department of Statistics and Data Science
 George Mason University, Department of Statistics
 Southern Methodist University, Department of Statistical Science
 University of California at Los Angeles, Department of Biostatistics
 University of California at Los Angeles, Department of Statistics
 University of Kentucky, Department of Statistics
 University of Minnesota-Twin Cities, Department of Statistics
 University of North Carolina in Greensboro, Department of Mathematics and Statistics
 University of Texas at Austin, Department of Statistics and Data Sciences
 Western Michigan University, Department of Statistics

ACADEMIC

Albert Einstein College of Medicine, Division of Biostatistics
 Arizona State University, School of Mathematics and Statistical Sciences
 Baylor University, Department of Statistical Science
 Clemson University, School of Mathematical and Statistical Sciences
 Columbia University, Department of Statistics
 Duke University, Department of Statistical Science
 Emory University, Department of Biostatistics and Bioinformatics
 Florida State University, Department of Statistics
 Georgetown University, Department of Biostatistics, Bioinformatics and Biomathematics
 Iowa State University, Department of Statistics
 Ohio State University, Department of Statistics
 Pennsylvania State University, Department of Statistics
 Purdue University, Department of Statistics
 Rice University, Department of Statistics
 Texas A&M University, Department of Statistics
 University of California, Riverside, Department of Statistics
 University of Georgia, Department of Statistics
 University of Illinois Urbana-Champaign, Department of Statistics
 University of Michigan, Department of Biostatistics
 University of North Carolina at Chapel Hill, Department of Statistics and Operations Research
 University of Pennsylvania, Wharton School, Department of Statistics
 University of Pennsylvania, PSM, Department of Biostatistics, Epidemiology & Informatics
 University of Pittsburgh, Department of Statistics
 University of South Carolina, Department of Statistics

GOVERNMENT AGENCIES & NATIONAL LABORATORIES

Bureau of Labor Statistics
 Energy Information Administration
 National Agricultural Statistics Service
 National Center for Education Statistics
 National Security Agency
 U.S. Census Bureau

INDUSTRY

Google
 Merck & Co., Inc.
 Minitab Inc.
 RTI International
 SAS Institute, Inc.

NISS EVENTS

2019

| | | |
|----------------|---|---------------|
| 22-24 July | Workshop on Climate and Weather Extremes | Berkeley, CA |
| 28 & 30 July | 2019 NISS Writing Workshop for Junior Researchers (at JSM) | Denver, CO |
| 28 July | NISS Affiliates Luncheon Meeting at JSM 2019 | Denver, CO |
| 17-19 August | The Fourth Workshop on Higher-Order Asymptotics and Post-Selection Inference (WHOA-PSI) ^{4} | St. Louis, MO |
| 10 September | NISS-Merck Virtual Meet-up on Subgroup Analysis | Virtual |
| 26 September | NISS Virtual Industry Career Fair for NISS Affiliates! | Virtual |
| 27 September | NISS Webinar: What's in a name – data analytics, machine learning, artificial intelligence and what else? | Virtual |
| 31 October | NISS Academic Affiliate Meet-up: Applying for a Statistics Research Grant: Essential Tips for Success! | Virtual |
| 19 November | Digging Deeper Into p-values: NISS Webinar Follow-up with Three Authors | Virtual |
| 25-26 November | R & Spark: Tools for Data Science Workflows | BLS |
| 6 December | NISS Virtual (Non-Healthcare) Industry Career Fair | Virtual |

2020

| | | |
|-------------|---|---------|
| 8 January | NISS Virtual Government Career Fair | Virtual |
| 7 February | NISS Academic Affiliate Meet-up: Collaborations Between Academia and Industry | Virtual |
| 19 February | 3rd Industry Virtual Career Fair | Virtual |
| 11 March | NISS Second Virtual Government Career Fair | Virtual |
| 23 April | NISS Virtual Academic Career Fair | Virtual |
| 6 May | The Use of p-Values in Making Decisions: A Third NISS Webinar | Virtual |
| 22 May | NISS Virtual 3rd Government Career Fair! | Virtual |
| 3 June | NISS Virtual 4th Industry Career Fair! | Virtual |

NISS SPONSORED & CO-SPONSORED PROGRAMS

2019

| | | |
|---------------|--|-------------|
| 20 September | Record Linkage Workshop | U Minnesota |
| 21 September | StatFest 2019 | U Texas |
| 1 October | The James R. Thompson Distinguished Lecture Series | Rice |
| 17-19 October | DAE 2019 Conference | U Tennessee |
| 4-6 November | Evolutionary Dynamics in Cancer | Ohio State |
| 15 November | Statistics & the Life Sciences: Creating a Healthier World | Boston U |
| 16 November | NextGen: Data Science Day | Bentley |

2020

| | | |
|-------------|--|------------------|
| 6-8 January | 13th International Conference on Health Policy Statistics | San Diego, CA |
| 15 January | NISS-Merck Meet-Up on Adaptive Trials for Drug Development | Virtual |
| 27 March | 7th NOGGINS Workshop | <i>Canceled</i> |
| 16 April | 72nd Clemson University / University of Georgia Joint Statistics Colloquium | <i>Postponed</i> |
| 24 April | The 2020 Bradley Lecture - POSTPONED | <i>Postponed</i> |
| 29 April | 13th Annual Conference on Statistical Issues in Clinical Trials: Cluster Randomized Clinical Trials (CRTs): Challenges and Opportunities – CANCELLED | <i>Canceled</i> |
| 5 May | NISS/ASA Webinar on COVID-19 and the Role of Modeling | Virtual |
| 8-10 May | The 8th Workshop on Biostatistics and Bioinformatics (Postponed to Fall 2020) | <i>Postponed</i> |
| 12 May | Webinar Series: Mathematical Foundations of Data Science: Ultra-Sparse Models of Multiway Data | Virtual |
| 14 May | NISS/COPSS Webinar: Learning from COVID-19 Data in Wuhan, USA and Europe on Intervention Strategies | Virtual |
| 15 May | Webinar Series: Data Science in Action in Response to the Outbreak of COVID-19: Analytic studies and opportunities for outside of epidemiology, Speaker: Dr. David Corliss | Virtual |
| 18-21 May | The Statistical Methods in Imaging Conference 2020 (Postponed to 2021) | <i>Postponed</i> |
| 19 May | Webinar Series: Mathematical Foundations of Data Science: Statistical Inference on Membership Profiles in Large Network | Virtual |

NISS SPONSORED & CO-SPONSORED PROGRAMS

2020

| | | |
|-----------|---|------------------|
| 22 May | Webinar Series: Data Science in Action in Response to the Outbreak of COVID19: Predictions, role of interventions and implications of a national lockdown on the COVID-19 outbreak in India | Virtual |
| 26 May | Webinar Series: Mathematical Foundations of Data Science: On the Statistical Complexity of Reinforcement Learning | Virtual |
| 27-29 May | Conference on Statistical Learning and Data Science/Nonparametric Statistics 2020 (SLDS 2020) | <i>Cancelled</i> |
| 29 May | Webinar Series: Data Science in Action in Response to the Outbreak of COVID-19: Can the reported COVID-19 data tell us the truth? Scrutinizing the data from the measurement error models perspective | Virtual |
| 2 June | Webinar Series: Mathematical Foundations of Data Science: Distributionally Robust Optimization, Online Linear Programming and Markets for Public-Good Allocations | Virtual |
| 5 June | Webinar Series: Data Science in Action in Response to the Outbreak of COVID-19: A Biostatistician's Encounter with COVID-19 in New York City | Virtual |
| 7 June | 2020 Quality and Productivity Research Conference - POSTPONED to 2021 | <i>Postponed</i> |
| 9 June | Webinar Series: Mathematical Foundations of Data Science: From Stochastic Frank-Wolfe to the Ellipsoid Method: Recent Progress on Practical Optimization in Data Science (the Frank-Wolfe Method) and Theoretical Optimization (the Ellipsoid Method) | Virtual |
| 12 June | Webinar Series: Data Science in Action in Response to the Outbreak of COVID-19: Statistics and Modeling in Response to COVID-19 at NIAID | Virtual |
| 16 June | Webinar Series: Mathematical Foundations of Data Science: Representation, Modeling, and Gradient Based Optimization in Reinforcement Learning | Virtual |
| 19 June | Webinar Series: Data Science in Action in Response to the Outbreak of COVID-19: A statistical transmission model for COVID-19 outbreak, with adjustment of external factors | Virtual |
| 23 June | Webinar Series: Mathematical Foundations of Data Science: Nonparametric Active Learning with Kernels and Neural Networks | Virtual |
| 26 June | Webinar Series: Data Science in Action in Response to the Outbreak of COVID-19: The Opportunities and Challenges of Healthcare Systems in the COVID-19 Era | Virtual |
| 30 June | NISS/ASA Tutorial on Susceptible-Infected-Recovered (SIR) Modeling | Virtual |

NISS NCES REPORT LIBRARY

| YEAR | DATE | TITLE |
|------|----------|---|
| 2020 | March | Release of Process Data to Researchers |
| 2019 | October | Making NCES Process Data Available |
| 2019 | March | Improving SES Estimators |
| 2018 | June | Taking a Longitudinal View of Administrative Education Data |
| 2018 | March | Clear Data Descriptions in NCES Reports |
| 2018 | January | Study and Survey Recruitment Planning and Materials |
| 2018 | January | Roundtable on Imputation in Government Surveys |
| 2017 | January | Study Design for Postsecondary Sample Surveys |
| 2017 | March | New Approach for Sampling Education Surveys |
| 2016 | December | Integrity, Independence, and Innovation: The Future of NCES |
| 2014 | August | Secure Statistical Analysis of Distributed Data |
| 2012 | January | Comparable Wage Index |
| 2011 | March | Configuration and Data Integration for Longitudinal Studies |
| 2011 | February | Confidentiality - Data Swapping |
| 2010 | December | Emerging Issues in Postsecondary Access and Choice |
| 2009 | July | Full Population Estimates for NAEP |
| 2008 | January | Capturing the Conditions and the Impacts of Technology on US K-12 Education |
| 2008 | January | Effect Size |
| 2008 | January | Non-Response Bias Analysis |
| 2008 | January | Computer Adaptive Testing for Longitudinal Studies |
| 2001 | December | Disclosure Risk vs. Data Utility: The R-U Confidentiality Map |
| 1999 | February | Accounting for Missing Data in Educational Surveys |

PUBLICATIONS

TO APPEAR

Bellow, M. E., **Erciulescu, A. L.**, Cruze, N. B. "Benchmarking Options for Model-Based County-Level Estimation of Agricultural Cash Rental Rates." Proceedings of Federal Committee on Statistical Methodology Research and Policy Conference, Washington, DC.

Erciulescu, A. L., Cruze, N. B., Benecha, H., Bejleri, V., Nandram B. "On Increasing the Number of County-Level Crop Estimates." Proceedings of Federal Committee on Statistical Methodology Research and Policy Conference, Washington, DC.

Fabbri, P., Gaetan, C., **Sartore, L.**, Dalla Libera, N. "Subsoil reconstruction in geostatistics beyond kriging: a case study in Veneto region." Hydrology. NE, Italy.

Rodhouse, J., Wilson, T., Ridolfo, H. "Questionnaire Complexity, Rest Period, and Response Likelihood in Establishment Surveys," Journal of Survey Statistics and Methodology.

2020

Fabbri, P., Gaetan, C., **Sartore, L.**, Dalla Libera, N. (2020). "Subsoil reconstruction in geostatistics beyond kriging: a case study in Veneto." (NE, Italy). Hydrology, 7(1), 15.

Chen, L. NASS and USDA. "Farm Labor"(2020)
https://www.nass.usda.gov/Publications/Todays_Reports/reports/fmla0520.pdf

2019

Biagas, D., Ridolfo, H., Abayomi, E., **Rodhouse, J.** (2019). "Examining Interviewer Effects on the Agricultural Labor Survey: A Mixed Methods Approach." Proceedings of 2019 Total Survey Error Perspective Workshop.

Corral, G., Riggins, S., Abayomi, E., **Sartore, L.**, **Wei, Y.**, **Sedransk, N.**, **Spiegelman, C.**, Young, L. J. (2019). "Using Models to Estimate Hog and Pig Inventories: Proceedings of a Workshop." Washington, DC: The National Academies Press. <https://doi.org/10.17226/25526>.

Cruze, N., **Erciulescu, A. L.**, Nandram B., Barboza W. J., Young L. J. (2019). "Producing Official County-Level Agricultural Estimates in the United States: Needs and Challenges." Statistical Science. 34(2) 301-316.

Erciulescu, A. L., Cruze, N., Nandram, B. (2019). "Model-Based County-Level Crop Estimates Incorporating Auxiliary Sources of Information." Journal of the Royal Statistical Society, Series A, 182, 1, 283-303. DOI 10.1111/rssa.12390.

Munyangi, J., Cornet-Vernet, L., Idumbo, M., **Chen, L.**, Lutgen, P., Perronne, C., Ngombe, N., Bianga, J., Mupenda, B., Lalukala, P. and Mergeai, G. (2019). "Artemisia Annu and Artemisia Afra Tea Infusions vs. Artesunate-Amodiaquine (ASAQ) in Treating Plasmodium Falciparum Malaria in a Large Scale, Double Bind, Randomized Clinical Trial." Phytomedicine, 57, 49-56.

PUBLICATIONS (Continued)

2019

Nandram, B., **Erciulescu, A.L.**, Cruze, N. (2019). "Bayesian Benchmarking of the Fay-Herriot Model Using Random Deletion." Survey Methodology. Statistics Canada, Catalogue No. 12-001-X, Vol. 45, No. 2. Paper available at <https://www150.statcan.gc.ca/n1/pub/12-001-x/2019002/article/00004-eng.htm>

Rodhouse, J., Ridolfo, H., Abayomi, E., Biagas, D. (2019). "Did the respondent really mean that? How Interviewers and Data Editors Impact Measurement Errors." Proceedings of 2019 Total Survey Error Perspective Workshop.

Sartore, L., Toppin, K., Young, L., **Spiegelman, C.** (2019). "Developing integer calibration weights for the Census of Agriculture." Journal of Agricultural, Biological, and Environmental Statistics, 24(1), 26–48.

Yazdani, A., Yazdani, A., Giráldez, R. M., Aguilar, D., **Sartore, L.** (2019). "A Multi-Trait Approach Identified Genetic Variants Including a Rare Mutation in RGS3 with Impact on Abnormalities of Cardiac Structure/Function." Scientific Reports, 9(1), 5845. (ISSN 2045-2322). Available at: <https://www.nature.com/articles/s41598-019-41362-3.pdf>

SUBMITTED MANUSCRIPTS

Bruner, E. D., Cui, W., Kulikowich, J. M. "Constructing a Between Grade Unidimensional Assessment of Reading Comprehension using NAEP Items."

Chen, L., Nandram, B. "Bayesian Two-fold Model for Sub-Areas."

Chen, L., Nandram, B. "A Hierarchical Bayesian Beta-Binomial Model for Sub-Areas."

Kulikowich, J. M., **Bruner, E. D.**, Cui, W., **Mo, Y.** "Digital Literacy Assessments: Effects of Substantive Covariates, Gender, and Context."

Nandram, B., **Chen, L.** "A Bayesian Model for Small Areas Under Heterogeneous Sampling Variances."

Sartore, L., **Wei, Y.**, Abayomi, E., Riggins, E., Corral, G., Bejleri, V., **Spiegelman, C.** "Modeling swine population dynamics at a finer temporal resolution."

Wei, Y., **Sedransk, N.**, **Sartore, L.** "Web Scraping and Natural language processing for disease outbreak detection and information extraction".

Sartore, L., **Wei, Y.**, Abayomi, E., Riggins, E., Corral, G., Bejleri, V., **Spiegelman, C.** "Modeling swine population dynamics at a finer temporal resolution."

CONFERENCES AND PRESENTATIONS

JOINT STATISTICAL MEETINGS 28 JULY - 2 AUGUST 2019

Chen, L. “Bayesian Logistic Regression Model for Sub-Areas.”

Sartore, L., Cruze, N., Benecha, H., **Erciulescu, A.,** Toppin, K., **Spiegelman, C.** “Ad-hoc calibration for rounding rules with nonlinear benchmarks.”

Toppin, K., **Sartore, L., Spiegelman, C.** “A global convergent algorithm for integer calibration weighting.”

Wei, Y. Sartore, L., Abernethy, J., Miller, D., Toppin, K., **Spiegelman, C.** “Deep Learning for Data Imputation and Calibration Weighting.”

OTHER CONFERENCES & WORKSHOPS

PRESENTATIONS

Sartore, L., Wei, Y., Abayomi, E., Riggins, S., Corral, G., **Sedransk, N.** “New Developments in Modeling Hogs Production and Growth at a Finer Temporal Resolution.”

| | | |
|--|-----------------|----------------|
| Quality and Productivity Research Conference | 10-13 June 2019 | Washington, DC |
|--|-----------------|----------------|

Sartore, L., Toppin, K., **Spiegelman, C.** “The Advantage of Integer Calibration in the Age of Big Data.”

| | | |
|------------------------|-------------|----------------|
| NISS Big Data Workshop | 9 July 2019 | Washington, DC |
|------------------------|-------------|----------------|

Chen, L. “Bayesian Logistic Regression Model for Sub-Areas.”

| | | |
|---------------------------------------|----------------|--------------|
| 2018 New England Statistics Symposium | 15-17 May 2019 | Hartford, CT |
|---------------------------------------|----------------|--------------|

Mo, Y., & Sedransk, N. “Using Regression Trees to Identify Distinct Subgroup Performance and Achievement Gain.”

| | | |
|---|----------------|-----------------|
| 2019 American Education Research Association Conference | 5-9 April 2019 | Toronto, Canada |
|---|----------------|-----------------|

Erciulescu, A.L. “Transparent and Reproducible Research in Agricultural Official Statistics.”

| | | |
|--|-----------------|----------------|
| 2018 Government Advances in Statistical Programming Workshop | 24 October 2018 | Washington, DC |
|--|-----------------|----------------|

Wei, Y. “Using Gaussian Copula to Generate a Synthetic Population.”

| | | |
|--|-----------------|----------------|
| 2018 Government Advances in Statistical Programming Workshop | 24 October 2018 | Washington, DC |
|--|-----------------|----------------|

Wei, Y., Sartore, L., & Sedransk, N. “Using Gaussian Copula to Generate a Synthetic Population.”

| | | |
|--|-----------------|----------------|
| 2018 Government Advances in Statistical Programming Workshop | 24 October 2018 | Washington, DC |
|--|-----------------|----------------|

Sartore, L., Rosales, A., Johnson, D., **Spiegelman, C.** 2020 “Linking Official Statistics and Remote Sensing Data for Training Crop Yield Regression Models (FCSM).”

| | | |
|---------------------------|-----------------|----------------|
| Webinar on “Blended Data” | 24 October 2018 | Washington, DC |
|---------------------------|-----------------|----------------|

SPEAKERS GALLERY

NISS VIRTUAL CAREER FAIRS

ACADEMIC CAREERS

October 31, 2019
Applying for Statistics Research Grant



Mimi Kim
Moderator



Karen Messer, Yehua Li, Sujit Ghosh

April 23, 2020
Succeeding as a Statistician in Academia



Piaomu Liu
Moderator



Richard De Veaux, Jerry Reiter,
Bhramar Mukherjee

INDUSTRY CAREERS

September 26, 2019
Tips for Working in Tech, Statistics/Analytics Careers



Sam Woolford
Moderator



Tim Hesterberg, Yanling Zuo, Fang Chen,
Steve Cohen

December 6, 2019
Opportunities in Banking & Marketing Sectors



Esra Kurum
Moderator

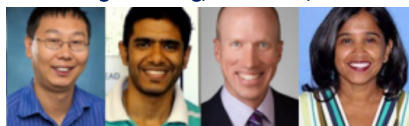


Victor Lo, Daniel Tu, Danny Jin

February 19, 2020
Advice and Insights: Hiring, Interviews,...



Ya Su
Moderator

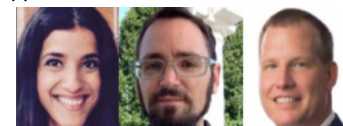


Ming Li, Subho Majumdar, Theodore Lystig,
Bonnie Ghosh-Dastidar

June 3, 2020
Insights and Opportunities in BioPharm Industries



Kevin Lee
Moderator



Rakhi Kiralu, Jonathan Lisic, Richard Zink

GOVERNMENT CAREERS

January 8, 2020
Opportunities/Research in Federal Statistical Agencies



Nathan Cruze,
Moderator



Wendy Martinez, Jonah Wong,
Jeff Bailey

March 11, 2020
Career Paths in 3 Health Related Government Agencies



Esra Kurum
Moderator



Simone Gray, Sylvia Collins, Paul Albert

May 22, 2020
Agencies/the Work & What Prospective Applicants Need to Know



Nathan Cruze,
Moderator



Dean Follmann, Greg Lawson,
Jennifer Parker

SPEAKERS GALLERY (Continued)

RESEARCH WEBINAR SERIES

September 27, 2019 - What's in a Name?



Dan Jeske
Moderator

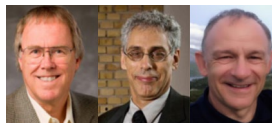


Victor Lo, Hal Stern, Lee Wilkinson,
Vincent Granville

November 19, 2019 - p-Value Alternatives



Dan Jeske
Moderator

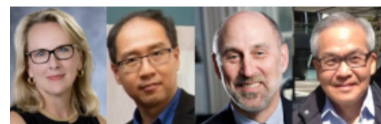


Jim Berger, Sander Greenland,
Robert Matthews

February 7, 2020 - Collaborations between Acad/Ind



Sumanta Basu
Moderator



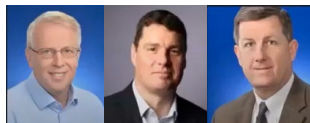
Rebecca Doerge, Victor Lo, Sam Woolford,
L.J. Wei

NISS-MERCK VIRTUAL MEET-UP SERIES

September 10, 2019
Subgroup Analysis



Dan Holder
Moderator



Ilya Lipkovich, Rob Hemmings,
Stephen Ruberg

January 15, 2020
Adaptive Trials for Drug Development



Dan Holder
Moderator



Vladimir Dragalin, QiQi Deng, Amy Xia,
Scott Berry

April 27, 2020
Bayesian Statistics in Drug Development



Dan Holder
Moderator



Frank Harrell, Amy Xia, Telba Irony

NISS - ASA SERIES ON COVID-19

May 5, 2020
NISS/ASA Webinar on COVID-19 and the Role of Modeling



Wendy Martinez
Moderator



Dean Follman, Britta Jewell, Nick Jewell,
Mark Lipsitch

NISS WORKSHOPS & TUTORIALS

NISS R & SPARK SHORT COURSE

November 25-26, 2019

R & Spark: Tools for Data Science Workflows



E. James Harner
Instructor



TUTORIAL ON SIR METHODS

June 30, 2020

Tutorial on Susceptible-Infected-Recovered (SIR) Modeling



Ottar Bjornstad
Instructor

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