

May 2023 • Issue #551

AMSTATNEWS

The Membership Magazine of the American Statistical Association • <http://magazine.amstat.org>



Gearing up for
TORONTO
Ontario, Canada • August 5–10
JSM2023

ALSO:
Member Feedback
Sparks Initiatives

Members Share Gratitude
for Those Who Made Big
Impact on Their Careers

One Community: Informing Decisions and Driving Discovery

TOR  **ONTO**

Ontario, Canada • August 5–10

JSM2023

REGISTRATION IS OPEN!



Key Dates

June 29, 2023

Regular Registration Closes

June 30 – August 10, 2023

Late Registration

July 6, 2023

Housing Deadline



Register Today!



August 5-10
2023 JOINT STATISTICAL MEETINGS

Toronto, ON, Canada

ww2.amstat.org/meetings/jsm/2023

AMSTATNEWS

MAY 2023 • ISSUE #551

Executive Director

Ron Wasserstein: ron@amstat.org

Associate Executive Director

Donna LaLonde: donnal@amstat.org

Director of Science Policy

Steve Pierson: pierson@amstat.org

Director of Education

Rebecca Nichols: rebecca@amstat.org

Managing Editor

Megan Murphy: megan@amstat.org

Editor and Content Strategist

Val Nirala: val@amstat.org

Advertising Manager

Joyce Narine: joyce@amstat.org

Production Coordinators/Graphic Designers

Olivia Brown: olivia@amstat.org

Megan Ruyle: meg@amstat.org

Contributing Staff Members

Kim Gilliam

Amstat News welcomes news items and letters from readers on matters of interest to the association and the profession. Address correspondence to Managing Editor, *Amstat News*, American Statistical Association, 732 North Washington Street, Alexandria VA 22314-1943 USA, or email amstat@amstat.org. Items must be received by the first day of the preceding month to ensure appearance in the next issue (for example, June 1 for the July issue). Material can be sent as a Microsoft Word document, PDF, or within an email. Articles will be edited for space. Accompanying artwork will be accepted in graphics file formats only (.jpg, etc.), minimum 300 dpi. No material in WordPerfect will be accepted.

Amstat News (ISSN 0163-9617) is published monthly by the American Statistical Association, 732 North Washington Street, Alexandria VA 22314-1943 USA. **Periodicals postage paid** at Alexandria, Virginia, and additional mailing offices. POSTMASTER: Send address changes to *Amstat News*, 732 North Washington Street, Alexandria VA 22314-1943 USA. Send Canadian address changes to APC, PO Box 503, RPO West Beaver Creek, Rich Hill, ON L4B 4R6. *Amstat News* is the member publication of the ASA. For annual membership rates, see www.amstat.org/join or contact ASA Member Services at (888) 231-3473.

American Statistical Association
732 North Washington Street
Alexandria, VA 22314-1943 USA
(703) 684-1221

ASA GENERAL: asainfo@amstat.org

ADDRESS CHANGES: addresschange@amstat.org

AMSTAT EDITORIAL: amstat@amstat.org

ADVERTISING: advertise@amstat.org

WEBSITE: <http://magazine.amstat.org>

Printed in USA © 2023
American Statistical Association



The American Statistical Association is the world's largest community of statisticians. The ASA supports excellence in the development, application, and dissemination of statistical science through meetings, publications, membership services, education, accreditation, and advocacy. Our members serve in industry, government, and academia in more than 90 countries, advancing research and promoting sound statistical practice to inform public policy and improve human welfare.

features

- 3 President's Corner
- 5 ASA Board Proposes Changes to Bylaws
- 6 Applying Equity Awareness in Statistical Data Privacy Takes a Village
- 7 My ASA Story: Lana Huynh, Statistics Student
- 8 New Series Explores ASA-NSF Connection
- 10 BASS XXX on Tap for October
- 11 How to Be Published in *Significance*
- 12 JEDI Corner: Student Travel Funding Needed to Improve Access to Profession
- 14 March Brings Welcome News for Andreas Georgiou
- 15 StatFest Slated for NC with Keynote Address from Netflix's Ché Smith
- 16 Members Share Gratitude for Those Who Made Big Impact on Their Careers
- 20 Better Employer Records Could Advance Research, Statistics, Evaluation
- 22 Statistics Without Borders Celebrates 15th Year, Aims to Update Charter

columns

- 24 **STATtr@k**
84.51° Data Science Director Shares Advice, Skills Needed to Succeed

STATtr@k is a column in *Amstat News* and a website geared toward people who are in a statistics program, recently graduated from a statistics program, or recently entered the job world. To read more articles like this one, visit the website at <http://stattrak.amstat.org>. If you have suggestions for future articles, or would like to submit an article, please email Megan Murphy, *Amstat News* managing editor, at megan@amstat.org.

- 25 **STATS4GOOD**
ASA Committee Defends Statistics, Statisticians Around the World

This column is written for those interested in learning about the world of Data for Good, where statistical analysis is dedicated to good causes that benefit our lives, our communities, and our world. If you would like to know more or have ideas for articles, contact David Corliss at davidjcorliss@peace-work.org.



INPUT WANTED

In case you missed last month's article, this is a reminder that the History of Statistics special interest group will have a new column in *CHANCE* magazine called History Chronicles and could use your suggestions and submissions for future columns. <https://bit.ly/431snbg>



Congratulations!

Longtime ASA member and Fellow C. Shane Reese was elected the 14th president of Brigham Young University. Reese was appointed academic vice president in June of 2019 and served as dean of the BYU College of Physical and Mathematical Sciences from 2017–2019. Read more about his appointment on the BYU website. <https://bit.ly/41rMNU0>

CORRECTION

Stephen Fienberg's name was misspelled in the March issue. We apologize for the error.

departments

26 **statistician's view**

The United States Needs to Fill the Gaps in Its Crime Statistics

28 **meetings**

Gearing up for JSM 2023

Leadership Academy Welcomes 8 More

Distinguished Achievement Award Lectureship Goes to Bin Yu

F. N. David Award Goes to Karen Bandeen-Roche

Michael Kosorok Receives George W. Snedecor Award

Hallmark Diversity Workshop and Mentoring Program Returns to JSM

JSM Has Much in Store for Students

Volunteer and Attend a Short Course for Free

Live from San Francisco ... CSP 2023

Early Registration Deadline on Horizon for AIPM

40 **education**

Beyond AP Statistics Will Be Held in June

MWM: Free Virtual Workshop for Statistics and Math Teachers



Check out the CSP 2023 roundup. **Page 36**

member news

41 People News

43 Section • Chapter • Committee News

47 Professional Opportunities



Follow us on Twitter
www.twitter.com/AmstatNews



Join the ASA Community
<http://community.amstat.org>



Like us on Facebook
www.facebook.com/AmstatNews



Follow us on Instagram
www.instagram.com/AmstatNews



Subscribe to our YouTube channel
www.youtube.com/user/AmstatVideos

Introducing StatsForward: A New Leadership Initiative

Program Would Help Statisticians and Data Scientists Lead in Both Formal and Informal Ways

The ASA's vision statement imagines *a world that relies on data and statistical thinking to drive discovery and inform decisions*. With our vision as our guide, we must be prepared to assume leadership roles on many levels. For some, this translates to a career that includes formal leadership positions within organizations. These formal roles are certainly important, but we also must be prepared to lead as members of our many communities.

The *College Guidelines for Assessment and Instruction in Statistics Education (GAISE) Report* offers this recommendation:

Teach statistics as an investigative process of problem-solving and decision-making. Students should not leave their introductory statistics course with the mistaken impression that statistics consists of an unrelated collection of formulas and methods. Rather, students should understand that statistics is a problem-solving and decision-making process that is fundamental to scientific inquiry and essential for making sound decisions.

This recommendation extends beyond the classroom and into our workplaces and communities. As statisticians and data scientists, we have the knowledge and must develop the ability to assist our colleagues and collaborators in understanding that statistical thinking is essential to solving problems and making sound decisions. Cultivating this ability so our community can lead in both formal and informal roles is the goal of my presidential initiative called StatsForward.

The overarching objectives of StatsForward are the following:

- Provide early-career statisticians and data scientists with mentoring and coaching.
- Create a sense of community and responsibility to be stewards of the profession for a cohort of early-career statisticians and data scientists.
- Develop future leaders of the American Statistical Association.



Dionne Price



As statisticians and data scientists, we have the knowledge and must develop the ability to assist our colleagues and collaborators in understanding that statistical thinking is essential to solving problems and making sound decisions.

- Offer timely (“just in time”) support for a cohort of early-career statisticians and data scientists to encourage their continued commitment to the profession.

The cohort will reflect the intersectionality of our community. The selection process will be intentional to ensure the inaugural cohort represents the diversity of our membership. The initial cohort of 15 individuals will initially convene at the 2023 Joint Statistical Meetings in Toronto, Ontario, Canada, and participate in two professional development courses. Following JSM, they will participate in professional development workshops and engage in activities designed to develop their abilities to lead. The formal program will culminate at JSM 2024 with additional professional development for the cohort and an opportunity to showcase their accomplishments.

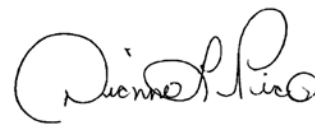
In a 2011 *New York Times* interview (<https://nyti.ms/40qmQTu>), then CEO of Enterprise Community Partners Teri Ludwig said, “Regardless of where you are, regardless of your role within the organization, it is my job to make sure that you feel empowered to lead from your seat. This is about recognizing that within any role in the organization, you can influence change and outcomes, and we all have to do that for us to be truly innovative, to deliver on our mission, to have breakthroughs.” We will empower the

StatsForward cohort to have influence and be prepared to lead from their seats and continue to lead as their ‘seats’ change.

While courses and workshops will be part of how we accomplish this outcome, we will need support from the ASA community to be successful. Networking, mentoring, and coaching will be essential to supporting the cohort and enabling them to accomplish their leadership goals. If you are willing to share your knowledge and skills with the StatsForward cohort, complete the form at <https://bit.ly/3UW35IY>.

We are accepting applications for the inaugural cohort at <https://form.jotform.com/zzlalo/2023-statsforward-fellowship> until June 10. Please encourage your colleagues, who have completed their highest degree within the last five years, to apply. In addition to biographical information, the application requires a candidate statement and two letters of support.

StatsForward will move our community forward by empowering and preparing our current and future leaders to drive discovery and inform decisions!



ASA Board Proposes Changes to Bylaws

Ron Wasserstein, ASA Executive Director

At its April 2023 meeting, the ASA Board recommended changes to four sections of the association's bylaws.

The board will vote in August to accept these changes. Per the rules set forth by our constitution and bylaws, the board seeks comments from ASA members on the proposed changes. Please send comments to ASA Executive Director Ron Wasserstein at ron@amstat.org by July 15.

Article I, Membership, Section 4

Current:

4. Termination. Membership in the Association will automatically be suspended if a member has failed to pay dues within one month after the expiration of the membership year. The Executive Director will reinstate such privileges and retain the original membership year if a suspended member pays his or her dues within six months after the expiration of the membership year. If in the opinion of the Executive Director the defaulting member has presented a satisfactory explanation for the default, a limited extension of time will be granted.

If a member acts in a manner detrimental to the Association, the Board of Directors will give notice to the member describing such charges. The member will then have due opportunity to respond and to have a hearing by a committee appointed by the Board of Directors. After reviewing the committee's report on the hearing, the Board of Directors may terminate membership by a vote of at least two-thirds of its members.

Termination of a member may also occur as a consequence of violation of the Association's conduct policy. The grounds for termination and the process by which termination would occur are specified in the Association's conduct policy.

Proposed:

4. Lapsed Membership. If a member has not paid dues within one month after the expiration of the membership

year, membership is considered lapsed and benefits discontinued. However, if the member pays their dues within six months after the expiration of the membership year, membership is automatically reinstated. Reinstatement beyond the six-month period may be granted by the Executive Director upon receiving a satisfactory explanation for the default.

5. Termination. If a member acts in a manner detrimental to the Association, the Board of Directors will give notice to the member describing such charges. The member will then have due opportunity to respond and have a hearing by a committee appointed by the Board of Directors. After reviewing the committee's report on the hearing, the Board of Directors may terminate membership by a vote of at least two-thirds of its members.

Termination of a member may also occur as a consequence of violation of the Association's code of conduct. The grounds for termination and process by which termination would occur are specified in the Association's code of conduct.

(Note: Current Section 5 (Fellows) would be renumbered as section 6 if the above is approved.)

Article V, Offices

Proposed:

Add the following as section 1 to Article V, then renumber remaining sections.

1. Principles. The nominations processes reflect and are aligned with the Association's values. Process and procedures reflect awareness of biases, implicit or otherwise, and mitigate their influence on the nominations process.

Article V, Offices, current Section 5

Current paragraph 1:

Leadership Positions. The President is the chief elected officer of the Association, serving as chair of the Board of Directors. The President is a

member of the Board of Directors and the Executive Committee, and presides at their meetings.

Current paragraph 5:

The Executive Director is the chief executive officer of the Association and will carry out the policies determined by the Board of Directors and other functions specified by the Board of Directors.

Proposed paragraph 1:

Leadership Positions. The President is an elected member of the Board of Directors and the Executive Committee. The President is the chair of the board and the executive committee and presides at their meetings.

Proposed paragraph 5:

The Executive Director is the CEO of the Association and will carry out the policies determined by the Board of Directors and other functions specified by the Board of Directors.

Article VI, Board of Directors, Section 2

Current:

2. Meetings. The Board of Directors will meet at least three times a year. Meetings will be held at the call of the President or the majority of the members of the Executive Committee, or by a written petition signed by at least five members of the Board of Directors. Meetings will follow Robert's Rules of Order, except where otherwise noted in the Constitution or Bylaws.

Proposed:

2. Meetings. The Board of Directors will meet at least three times a year. Meetings will be held at the call of the President or the majority of the members of the Executive Committee or by a written petition signed by at least five members of the Board of Directors. Meetings will follow Robert's Rules of Order, unless other rules of order are adopted by the board. ■

Applying Equity Awareness in Statistical Data Privacy Takes a Village

Claire McKay Bowen and Joshua Snoke



McKay Bowen



Snoke

MORE ONLINE
Interested readers can find the full report discussed in this article at <https://urban.is/3TAGTWO>.

Researchers and organizations can increase privacy in data sets through methods such as aggregating, suppressing, or substituting random values. But these means of protecting individuals' information do not always equally affect the groups of people represented in the data. A published data set might ensure the privacy of people who make up the majority of the data set but fail to ensure the privacy of those in smaller groups. Or, after undergoing alterations, the data may be more useful for learning about some groups than others. Ultimately, how entities collect and share data can have varying effects on marginalized and underrepresented groups of people.

To understand the current state of ideas, we completed a literature review of equity-focused work in statistical data privacy and conducted interviews with nine experts on privacy-preserving methods and data sharing. These experts include researchers and practitioners from academia, government, and industry who have diverse technical backgrounds. We asked about their experience implementing data privacy and confidentiality methods and how they define equity in the context of privacy, among other topics. We also created an illustrative example to highlight potential disparities that can result from applying statistical data privacy methods without an equitable workflow.

Key Takeaways

Following are ideas that can help advance equity in statistical data privacy. These are meant as a start to a conversation about developing a framework for advancing equity in statistical data privacy.

Do Not Treat Equity as a Separate Field of Study

Equity is integral to current statistical data privacy practice, and the field should figure out how to balance equity with privacy loss and utility. Considering equity in the context of statistical data privacy should be part of any work on the topic, particularly in real-world implementation. Developing statistical data privacy methods to achieve equity after implementing them will not serve the community well, since statistical data privacy methods contain practical constraints. Pursuing equity throughout the data life cycle (i.e., from data collection to data publishing) will help advance ideas and communicate limitations.

Consider Literature and Perspectives from Fields Outside Your Own

Data privacy is a wide and diverse field, and researchers and practitioners should draw on experiences outside their own training. By familiarizing themselves with work and perspectives outside their discipline, researchers can increase the equity in their own field. They can go even further by engaging in collaborative efforts with researchers outside their discipline.

Estimate Separate Privacy Loss–Utility Curves for Groups

Practically speaking, statistical data privacy implementations can consider equity by explicitly defining the demographic groups in the data and publishing estimated privacy-utility curves for those groups. By making these curves public, data curators can help choose the trade-off point between privacy and utility, as well as consider whether different trade-offs are needed for different groups in the data.

Work with Groups Represented in Your Data

All the subject matter experts we interviewed agreed that understanding the privacy loss and statistical utility preferences for the groups represented in the data is essential for making the statistical data privacy process more equitable. Those implementing these methods should work to identify and partner with representatives of the groups who can help inform these decisions. This work involves communicating limitations and trade-offs and working to find a solution that is acceptable to decision-makers and representatives.

There Is No Methodological Silver Bullet

Rather than assuming certain methodologies will always result in equitable solutions, researchers and practitioners should seek to build equity thinking into all phases of their work. Most solutions will involve implementing multiple data access approaches, such as using secure data enclaves and public data. However, we must note that even with a clearly defined approach to addressing equity in data privacy and utility, there will be nuance and variation based on the context. This process requires working with those outside the statistical data privacy field to ensure the methodological approach is appropriate. ■

My ASA Story: Lana Huynh, Statistics Student

I entered my first year of college at California Polytechnic State University, San Luis Obispo as a statistics major when courses were online. Although resources and opportunities were limited due to the nature of college not being in person, the statistics department did an excellent job of making me and other students feel supported.

The professors adjusted to an online medium, and I thought I grasped the material well. Faculty and, most notably, department chair Andrew Schaffner shared numerous resources and opportunities with students. Additionally, the Cal Poly Stat Club held multiple virtual meetings and events such as an internship panel, research panel, sports analytics talk, etc.

The department also offered a summer research program for 10 students, which I applied for in my first year in hopes of gaining statistics experience outside the classroom. I was accepted and, for the next two years, I worked with Billie-Jo Grant on a project involving educator sexual misconduct.

As the statistics department at Cal Poly provided so many opportunities, I wanted to contribute in return and take on a leadership position so I could have a larger impact on the organization. I was elected the Stat Club liaison in my second year and Stat Club president my third year. Through social events such as bonfires and bowling nights sponsored by the American Statistical Association, students were able to take a break from academics and bond with their peers in a more casual setting. The ASA also helped our club find talented guest speakers such as Wendy Martinez, former ASA president, to inform members about working in their respective fields.

One of the most rewarding experiences I've had as an ASA member was presenting my research at the 2022 Quality and Productivity Research Conference in San Francisco, California, where I was funded by the National Science Foundation. At first, I felt a sense of imposter syndrome being the only undergraduate student of 28 poster presenters. However, the more people I presented to, the more confident I became in myself and my research. I received a number of intelligent questions, and learning to answer these questions on the spot enriched my communication skills.

A couple of months later, I was funded by the Frost Research Program to attend the 2022 Joint Statistical Meetings in Washington, DC. I attended continuing education courses, roundtables, and sessions to learn more about niche subfields of statistics.

After a roundtable where we discussed small area estimation, someone came up to me and asked if I knew a faculty member at my school named Heather Smith because he used to work with her. I said, "yes," and we discussed my interest in statistical consulting. This connection inspired me to go to the consulting mixer that evening.

Initially, I felt like I stuck out because most people were decades older than me, but the student liaison, David Agboola, welcomed me, shared many resources, and helped me form even more connections in the consulting community.

Upon returning home from JSM, I felt inspired to seek opportunities for developing my statistics skills in projects from different fields. With that goal, I began shadowing the rotating statistical consultant at Cal Poly. I currently shadow Smith (a full-circle moment), and I have been able to apply my statistical knowledge to real projects. As most clients do not have a strong data or statistics background, figuring out how to effectively communicate statistical ideas has been a valuable learning experience.

Overall, being part of the Stat Club at Cal Poly in tandem with attending conferences by the ASA has been extraordinarily beneficial for my academic career and personal development. Stat Club has taught me how to be a strong leader through relationship building and event planning. I look forward to the opportunity to continue organizing meetings and events for Stat Club and encouraging students to take advantage of all the school's resources. Additionally, the ASA has exposed me to statistics beyond the university setting, and I have expanded my connections and network outside of Cal Poly.

The ASA community has given me a lot, and I'd like to continue being an active member of the organization and eventually take on leadership roles. ■



Huynh traveled to San Francisco to present her research at the 2022 Quality and Productivity Research Conference.

NSF CORNER

New Series Explores ASA-NSF Connection

NSF program officers and awardees discuss process, projects

To strengthen the connection between the statistical community and National Science Foundation, 2022 ASA President Katherine Ensor implemented regular communication with NSF leadership, including statistics program officers in the Division of Mathematical Sciences. She established a working group with representation from the

ASA Caucus of Academic Representatives and Committee on Funded Research to support this goal.

In addition to tracking NSF priorities and updates, working group members want the ASA to better support the work of statistics program officers and DMS leadership in advancing and supporting statistics and data science research. They also seek to work with the ASA community to identify and communicate ASA priorities to NSF. Therefore, the working group is introducing a regular series in *Amstat News* that will feature questions posed to NSF program officers and awardees. They also welcome your input. Send any questions or comments to ASA Director of Science Policy Steve Pierson at pierson@amstat.org.

Gel from The University of Texas at Dallas and Peña from the University of South Carolina-Columbia, who are in their second and third years, respectively, as rotator program directors of the statistics program. Zeng served in DMS from 2015–2018 and 2019–2021.

Can you submit the same proposal to multiple NSF programs?

Even if you think your proposal fits into multiple NSF programs, you should only make a *single* submission to NSF. According to the *NSF Proposal & Award Policies & Procedure Guide* (<https://bit.ly/410Flz4>)—which governs all aspects of submission and review of NSF proposals—you should indicate on the cover page the NSF program you think is the most appropriate and then specify one or more secondary NSF program(s) the proposal may fit into. In such a case, the proposal may be assessed for its suitability for all indicated programs. This may involve ad hoc reviews, multiple panel reviews, etc. In addition, NSF program officers may identify other programs your proposal may be of interest to. If the multiple NSF programs express interest in your proposal, the project may be co-funded by these programs.

NSF Statistics Program Directors



Yulia Gel



Edsel Peña



Yong Zeng



Jun Zhu

The NSF Statistics Program Directors

Yulia Gel, Edsel Peña, Yong Zeng, and Jun Zhu collectively responded to the following questions. Zeng, from the University of Missouri-Kansas City, became a permanent program director, and Zhu, from the University of Wisconsin-Madison, became a rotator program director of the DMS in the NSF Directorate for Physical and Mathematical Sciences in 2022. They joined

How do you decide which program is primary and which is secondary?

Think about the field or program in which your project would make the most advances with respect to the two NSF review criteria of intellectual merit and broader impacts. This is likely your primary program for the proposal. You can use the NSF search award engine (<https://nsf.gov/awardsearch>) to better understand what is funded by each program and how your project would fit in. Think broadly about other domains of knowledge your research may affect and you may identify unexpected directions and secondary programs.

Can you submit the same proposal to other funding agencies?

Yes, you can generally submit a proposal currently under review by other federal agencies to NSF. You must indicate on the cover page that it is a concurrent submission to another federal agency. If both submissions are to be funded, you will have to withdraw one of them.

NSF Awardees



Soutir Bandyopadhyay



Doug Nychka



Soumendra Lahiri

The NSF Awardees

Soutir Bandyopadhyay and **Doug Nychka** of the Colorado School of Mines and **Soumendra Lahiri** from Washington University in St. Louis have an extensive record of receiving support from DMS. Although the project they discuss below marks the first funded by a program outside of DMS, their previous projects led to numerous peer-reviewed publications, research opportunities for graduate students and summer interns from underrepresented groups,

mentoring opportunities, and several R packages.

What is the grant, and how will funding be used?

Large floods are expected to occur more frequently due to global warming, and the steady increase of urbanization demands new attention to robust, efficient, and real-time flood modeling. This project develops statistical models to emulate large-scale extreme events accurately and quickly in lieu of complex physical models. It also entails developing a

Applicants should only make a single submission. NSF program officers may identify other programs the proposal would be of interest to, and the project may be co-funded by these programs.



BASS XXX will be held October 23–25 in Savannah, Georgia.

BASS XXX on Tap for October

Registration opens May 1 for BASS XXX, the 30th Biopharmaceutical Applied Statistics Symposium, which will be held October 23–25 at the Holiday Inn Savannah Historic District in Savannah, Georgia.

Speakers from academia, the pharmaceutical industry, and the US Food and Drug Administration will give one-hour tutorials on diverse topics pertinent to the research, clinical development, and regulation of pharmaceuticals. There will also be a poster session.

Check out www.bass-conference.org for more information. To stay up to date on BASS XXX developments, sign up for the mailing list at <https://bit.ly/3GA7a9m>.

theory for predicting spatial extreme events and studying the behavior of the predictors.

The interdisciplinary research involves various sub-disciplines of statistics and hydrology. It is co-funded by the Civil Infrastructure Systems and Statistics programs and owned and managed by the CIS program. Additionally, two graduate students will be supported through the research and work alongside Jupiter Intelligence's data scientists and hydrologists.

The project will also focus on package development, scaling up the model using parallel computation, and data management and dissemination.

What will the project accomplish?

This research is expected to have a significant impact on the hydrology field by advancing the development of valid statistical emulators for estimating flood extent, river depth, and water surface elevation, with a strong theoretical foundation. Flexible statistical emulators will enable efficient computation and identification of flood characteristics—such as flooded areas, flood depth, and water surface elevation—for different scenarios.

Additionally, the proposed theoretical development of modeling extreme events will allow for new emulation techniques and validation tools for benchmarking future large-scale computer experiments proposals.

Furthermore, the research findings are expected to have broad applicability beyond the context of high-resolution

urban flooding, including population modeling, probabilistic weather forecasting, pollution modeling, and traditional geostatistical applications.

Describe your approach. What helps the application process?

DMS program directors are adept in reaching out to other programs at NSF to share funding. It helps to have a substantial application, where the results are important independent of the new statistical methods and there is collaboration with experts in the application area. For this process, it helps if at least the introductory parts of the proposal are understandable to a general scientific audience.

What advice do you have for others applying for NSF funding?

Answer the following questions early in the proposal as short paragraphs to organize the rest of the proposal:

- What is the general science or engineering problem?
- How is this a new statistical problem?
- What is the proposed solution?
- With this solution, what are the broader impacts?
- Why are you or your team ideally suited to solving this problem?

In general, we have found that one or more important applications can set a proposal apart from those that focus on just methods. Of course, the work cannot be an application of existing statistical tools. ■

How to Be Published in *Significance*

What is the secret to being published in *Significance* magazine, and what is the editorial process? *Significance* editor Anna Britten tells us.

Who is the audience for *Significance* magazine?

Significance is for anyone interested in statistics and the analysis and interpretation of data. Many of our readers are members of the American Statistical Association and Royal Statistical Society, work as statisticians and data experts, or teach or study related subjects. But, crucially, the magazine also reaches a more mainstream audience of intelligent, curious people who have no formal statistics background but enjoy reading about how statistics explains the world around them.

Do you have to be a statistician to write for *Significance*?

No. We publish plenty of articles by specialists in other areas who happen to use statistics in their research or job. For example, historians, medics, economists, sports scientists, linguists, zoologists, sociologists, epidemiologists, and computer scientists have all published in *Significance* over the past year.

What topics are you looking for?

If it tells an interesting story through statistics, we're interested. Articles can be on any subject. For example, in recent issues, we've published articles about the environment, Wordle, domestic violence, fighting disease, the World Cup, social media usage, election polls, and even the Eurovision Song Contest!

We also love articles that look at a current news story through a statistical lens. You could even focus on a personal experience with statistics. One author, for example, described how he monitored his own cancer treatment using statistics; another told us how he fell in love with stats through collecting trading cards as a child.

And we're always interested in profile pieces looking at the life and work of an important, but perhaps overlooked, figure in the history of statistics/data.

Don't assume a topic or format is ruled out because you haven't seen it in *Significance* before. Sound me out. I really am all ears, all the time!

Describe the process an article goes through after it is submitted for publication in *Significance*?

It will get a first read by me, although it may take several months for me to reply to authors due to the volume of submissions we receive and the fact we are a tiny team. The most suitable articles will then be reviewed by members of the editorial board.

If we decide we would like to publish an article, reviewers suggest improvements to authors, and there is typically some rewriting. Final drafts are then copy-edited and prepared for publication.

Do you have any tips to offer a writer who wishes to submit an article?

The most important thing to bear in mind is that *Significance* is a magazine, not



Significance editor Anna Britten offers advice to authors who wish to publish in the magazine.

an academic journal. Tailor your voice accordingly.

Articles should be written in a journalistic, magazine style—accessible, appealing, and not too technical. Your introduction should grab us, every paragraph should make us want to keep reading, and your closing lines should make clear why this story matters to the world/society.

For inspiration, look at popular science magazines, TheConversation.com, and even highbrow mainstream magazines like *Vanity Fair*.

Finally, what is the best way to submit an article so it is accepted for publication?

Email proposals/abstracts or a full article to significance@rss.org.uk. We don't need any particular font, spacing, or fancy formatting. A Word document with figures embedded is fine. Early-career statisticians and data scientists can enter our writing competition, too, which includes publication as a first prize. Details are at <http://bit.ly/3Lx6MM>. ■

JEDI CORNER

Student Travel Funding Needed to Improve Access to Profession

All students deserve an equal opportunity to take part in conferences

The Justice, Equity, Diversity, and Inclusion (JEDI) Outreach Group Corner is a regular component of Amstat News in which statisticians write and educate our community about JEDI-related matters. If you have an idea or article for the column, email the JEDI Corner manager at jedicorner@datascijedi.org.

Therri Usher, Lydia Gibson, Brittney Bailey, and Yates Coley

My first ASA conference was the 2021 Joint Statistical Meetings. Since it was held virtually, my only expenses were the \$100 student registration fee and \$25 add-on fee for the Career Service. JSM was a transformative experience for me both personally and professionally, as it gave me the opportunity to meet folks who would provide me opportunities I otherwise would not have known about. After connecting with her during the JSM First-Time Attendee Orientation, I began an informal mentor-mentee relationship with Theresa Utluat, senior principal engineer and director of statistics and data science technology development at Intel Corporation. Early on in our talks, we discussed the fact that women—especially those of color—are less likely than men to apply for jobs that they

don't meet 100 percent of the qualifications for. Months later, this insight would give me the needed encouragement to apply for and obtain an internship with Intel, which in turn led to a return offer as a full-time data scientist following graduation from my MS statistics program.
– Lydia Gibson

Broad exposure to the field, good mentorship, and a strong network are essential to career development. Early access to conferences creates opportunities for students to establish relationships and explore the field. For students with marginalized identities, a conference may be the first place they encounter other statisticians with similar identities, which could contribute to a sense of belonging in the field. However, equitable accessibility to conferences

If we are serious about increasing diversity in the field and promoting equity and inclusion, we need to reduce barriers to accessing the profession, especially for students.



Therri Usher is a mathematical statistician at the FDA's Center for Drug Evaluation and Research. She serves as the program chair-elect of the JEDI Outreach Group and chair of the Committee on Minorities in Statistics. She also serves as an elected member of ENAR's Regional Committee.



Lydia Gibson is a second-year master's student and president and co-founder of the ASA student chapter at California State University, East Bay. She served as a 2022 co-chair of the ASA JEDI Outreach Group Student and Young Professionals Committee, alongside Robert Tumasian III.



Brittney Bailey is an assistant professor of statistics at Amherst College. She serves as chair of the National Organizing Committee for StatFest and is a member of the Committee on Minorities in Statistics.



Yates Coley is an associate investigator at Kaiser Permanente Washington Health Research Institute and affiliate assistant professor in the department of biostatistics at the University of Washington. They currently serve as chair of the JEDI Outreach Group Communications Committee and edit JEDI Corner.

is not always available for these students. The financial cost of attending conferences is often a prohibitive factor.

While many conferences do offer student travel awards to offset the cost of attendance, the student awards do not always cover the full cost of registration and travel. Even if they do, most require students to pay for their expenses out of pocket, with the promise of reimbursement at a later time. Without the disposable income to pay for conference expenses up front, some students go into debt to produce the needed funds. And reimbursements can often take weeks—weeks in which students accrue interest on their debt.

There are also students who are unable to obtain travel awards, such as those early in their graduate program who do not have research to present. Nevertheless, these students can benefit by attending conferences, particularly in building their professional network.

So how can we fix this? Like most problems, there is no one solution. Solutions will look different for each conference, each student, and

each department, but the following changes can be implemented to improve accessibility:

- Funding can be provided up front, not via reimbursement.
- Departments can prioritize funding for student travel in their budgets.
- Advisers, particularly in soft money environments, can help students access grant funding.
- Conferences can have free or greatly reduced registration fees for students.
- Conference planners can select less-expensive locations as host sites.
- Conferences can provide food for students to reduce their out-of-pocket cost.

If we are serious about increasing diversity in the field and promoting equity and inclusion, we need to reduce barriers to accessing the profession, especially for students. Improving students' access to conferences will eliminate a major barrier. ■

March Brings Welcome News for Andreas Georgiou



Photo by Ali Arab
Andreas Georgiou supporters picket outside the Greek Embassy in Washington, DC, in December of 2022.

Friends of Greece said in a statement, “This decision is a victory for accurate statistics and the rule of law ... [and] holds the promise for the Greek government to rectify years of political persecution against Andreas Georgiou.” Prominent Greek economist Miranda Xafa wrote, “The erosion of judicial independence in the case of Mr. Georgiou, as well as in other cases, proves the necessity of institutional reforms in the [Greek] judiciary. If they are not implemented, Greece will be the big loser.” In both December and January, supporters demonstrated outside the Greek Embassy in Washington, DC, calling for justice for Georgiou.

Georgiou still awaits a decision by the Greek Supreme Court for his appeal of a conviction for simple slander. And the community awaits Greece’s reaction to the European Court of Human Rights’s decision on the violation of duty charges, which contend Georgiou violated his duty as head of ELSTAT when—in November of 2010—he did not put up the revised 2006–2009 public finance statistics for a vote following such demands of a then-existing board at ELSTAT. For this charge, he was initially cleared by a three-judge panel before being subjected to a double jeopardy trial, in which he was convicted and sentenced to two years in jail (suspended). Subsequently, the Greek Supreme Court confirmed Georgiou’s conviction.

Georgiou appealed to the European Court of Human Rights, stating his human right to a fair trial was violated because the Greek court did not consult the “European statistics code of practice,” which—under the principle Professional Independence—includes this indicator: “The heads of the National Statistical Institutes ... have the sole responsibility for deciding on statistical methods, standards and procedures, and on the content and timing of statistical releases.”

With the European Court of Human Rights judging in Georgiou’s favor, the Greek government could appeal the ruling or the Greek judiciary could reopen the case, as explicitly recommended by the European Court of Human Rights. ■

Former Greek statistician Andreas Georgiou and the broader government statistics community received encouraging news on two fronts in March. The European Court of Human Rights ruled in favor of Georgiou, finding Greece violated his right to a fair trial on violation-of-duty charges. Separately, in its annual human rights country reports, the US State Department included mention of Georgiou for the fourth straight year under a section titled Denial of a Fair Public Trial.

While the violation of duty charge is far from resolved, Georgiou and his supporters welcomed the news after more than 11 years of persecution and setbacks for his work to produce accurate and objective official statistics as president of the Hellenic Statistical Authority from 2010–2015. In a message to his supporters, Georgiou thanked them for their steadfast support and emphasized the court decision was “good news for the application of the principles and ethics of official statistics in Greece, the EU, and the world, as well as for human rights and the rule of law.”

The ASA and international community continue to rally for Georgiou. Following the decision, the

MORE ONLINE
For a summary of the charges against Georgiou, visit <https://bit.ly/3KNNaCE>.

StatFest Slated for NC with Keynote Address from Netflix's Ché Smith

StatFest—a free, one-day conference designed to encourage undergraduate students of color to pursue graduate studies and careers in statistics and data science—will bring students and professionals together September 23 at SAS headquarters in Cary, North Carolina.

This year's program will kick off with a keynote address by Ché Smith, senior analytics engineer at Netflix, who will share insights from her career. Panel discussions with professionals from industry and academic, government, and nonprofit organizations will follow. Invited speakers will also share advice for building mentorship networks and applying to graduate school.

Later in the day, students will participate in a students-only discussion with current graduate students about their experiences and how to be successful in graduate school. In a concurrent session, professionals will talk about how to promote inclusion, diversity, equity, and accessibility in statistics and data science, focusing on cultivating the next generation of leaders.

Between speaker and panel sessions, participants will have the opportunity to connect with each other, build their networks, and interact with exhibitors. Past exhibitors have included representatives from graduate programs, summer research programs, and internship programs, as well as potential employers. Students will also have the opportunity to share their work or research experience in a poster session.

A limited number of travel awards are available for undergraduate students from 250 or more miles from Cary. To be considered, students must register by May 31 and indicate their need on the registration form (<https://bit.ly/3ZRJsf7>).



MORE ONLINE

For details about this year's conference and to register, visit <https://bit.ly/3MrZeuB>.

About StatFest

StatFest is made possible by support from the ASA and several academic and industrial sponsors. If your organization is interested in supporting the event, contact Amanda Malloy at amanda@amstat.org and Therri Usher at therri.usher@fda.hhs.gov. If you have questions about StatFest 2023, contact this year's chair, Brittney Bailey, at bebailey@amherst.edu.

StatFest is an ongoing initiative of the American Statistical Association through its Committee on Minorities in Statistics. The committee seeks to foster participation in statistics and data science by historically underrepresented minorities. It focuses much of its effort on two key programs: StatFest, a pathway program, and the Diversity Mentoring Program, an early-career success program. ■



Members Share Gratitude for Those Who Made Big Impact on Their Careers

May is graduation month and a great time to reflect on the people who have helped and inspired us along our journeys. Whether it was a grade-school teacher, an undergraduate or graduate professor, or a seasoned statistician, mentors have a big impact on how we navigate the many paths laid before us. Over the last month, the ASA GivesBack team asked members to submit ‘thank-you notes’ to a mentor who made a big difference for them. The following are some of the submissions received.

Chris Bellamy

Submitted by Trudy Beerman



Bellamy

I used analytics in my business as if it were a rear-view mirror. Analytics told me if a decision I made was good or needed to be tweaked, but I did not use business analytics to project or influence my decisions. Facebook ads metrics were the trigger to turn off a poorly performing ad, and it never occurred to me to examine the analytics for anything else. My doctoral course at Liberty included business analytics in the lineup for me to get my degree, so it was not a specific choice of mine to take this class. Still, I am grateful to Liberty University for including this course as they groom future leaders.

Bellamy (aka – Dr. B.) brought business analytics to my attention as a way to influence my decisions, not just to justify the ones I had made. With his influence, I now have a new perspective on the value of business data analytics. Of all the classes I have taken on my DSL journey, business

analytics has become my favorite, and I have Dr. B. to thank for that. I now view analytics like a magnifying glass or a seat in the Delorean (the name of the time travel car in the movie *Back to the Future*). Dr. B opened my eyes to see data analytics as an untapped area to create a competitive advantage in my business. This class did not feel like something just to get checked off as done [for] my doctoral degree, but a real opportunity to bring growth to the organizations I serve.

Ana-Maria Staicu

Submitted by Xiaoxia Champon



Staicu

Ana-Maria Staicu has been my adviser for almost three years. She exemplifies the true meaning of a mentor and offers tremendous support, including—but not limited to—academic advancement, emotional support, and opportunities for professional growth. Given the fact I am a returned graduate student who hasn't been back to school for 10 years, her

personal encouragement, honest guidance, and additional care made it possible for me to not only survive my graduate study, but to thrive. As an adult student, I appreciate clear expectations and directness, both of which Staicu has provided. Staicu acted not only as a wonderful mentor, but also as a good friend. She once asked me to take care of myself, to prioritize my research, and to not stretch myself too thin. It was in those moments I almost felt like she was an “adviser-mom,” someone who wants the best for me and will steer me in the right direction when it’s needed. In my progress report each year, she is honest and direct. It is because of Staicu that I have not only learned to be a good researcher, but have also formed good habits that will lead me to success in the long term.

The greatest things I have learned from Staicu are not necessarily what I have been taught, but rather what I have observed. She is a role model who has shown me how to be a leader. In all the examples given above, she helped me grow in maturity and showed me how to handle complex situations. I have learned that by giving opportunity to others, by providing a safe environment where ideas can be shared honestly, and by expressing true caring, I will make a great impact in any organization. Thanks for this wonderful opportunity to have her recognized.

Monnie McGee

Submitted by Micah Thornton

As a former computer engineering student, I was drawn to the potential of data and technology to address complex problems. Pursuing a PhD in biostatistics felt like a natural progression, but I quickly discovered my background did not fully prepare me for the rigors of the program.

I struggled to keep up with my peers, feeling lost and disconnected as they breezed through the material. It was a difficult time, and I wondered if I had made a mistake.

But then I met Monnie McGee, a distinguished statistician who was renowned not only

for her expertise but also her kindness and willingness to help statistics students. She recognized my potential and took me under her wing, spending countless hours working through problems and concepts with me, answering my questions patiently, and providing guidance and support.

Thanks to McGee’s mentorship, I began to excel in the program. I found a passion for statistical methods and began contributing to the field in meaningful ways. My dissertation focused on using Fourier coefficients for genomic sequences to form phylogenies of viruses, an accomplishment that solidified my place in the biostatistics community.

While my dissertation was not widely recognized, it was an important achievement for me. It represented the culmination of years of hard work and dedication, and it gave me a sense of pride and belonging in the biostatistics community.

Looking back, I realized I never could have achieved my success without McGee’s mentorship and support. She was not only an accomplished statistician, but also a kind-hearted person who made a significant difference in my life. I was grateful for the experience and knew I would always be part of the biostatistics community, a community that embraced me and helped me achieve my dreams.

Tanya Garcia

Submitted by Sarah Lotspeich

Tanya Garcia is absolutely a unicorn. Not only is she strong technically, publishing exciting and impactful biostatistics work, but she is always training to become the best mentor she can possibly be. I feel so truly lucky to have met Tanya as a fresh postdoc because she was there to support me through so many big ups and downs in my early-career life. She shares in her mentees’ joys and the struggles, both in research (like paper rejections) and life in general (like when I got married), and devotes so much of her energy to the people around her. Thank you, Tanya, for everything you do for me, your students, and my students.



McGee



Garcia

Arjun Kumar Gupta

Submitted by Ying-Ju (Tessa) Chen



Gupta

I had the pleasure of working with Arjun K. Gupta, my adviser, during my PhD dissertation study on change-point problems at Bowling Green State University. I first met Gupta when I arrived in the United States in 2009 to pursue a master's degree in statistics. As an international student, I sometimes struggled to understand the course material, but Gupta was always there to help. He had an incredible ability to detect when a student was confused and would check in to see if we had any questions. He was always willing to discuss research studies and encourage us to think for ourselves, rather than give us answers.

Gupta was an exceptional mentor who possessed many wonderful qualities. He was knowledgeable, open-minded, supportive, motivating, and an excellent listener. He recognized my talent and encouraged me to continue my academic journey by pursuing a PhD after completing my master's degree. Despite his impressive scholarly achievements and recognition in the statistical community, Gupta always treated everyone equally and provided collaboration opportunities whenever possible. He respected every team member's opinion and appreciated their contributions to the research results.

I will always cherish the memories of working with Gupta. I can still remember the days we spent in his office, working through the proof of a theorem, and the moment when my first article was accepted and we read the email together. He was one of the most influential people in my life. Even though he passed away peacefully on December 25, 2022, I am confident that his multi-dimensional life will continue to inspire others. I will remember him forever, and I feel blessed to have had the opportunity to work with such a remarkable adviser.

Rameela Raman

Submitted by Jamie Joseph



Raman

When I first arrived at Vanderbilt to begin my PhD, I was terrified and felt very isolated. I knew nobody in the higher academic field and nothing about what my path would look like for the next five to seven years. When the director of our program emailed me the summer before beginning the program about a potential research assistantship opportunity, something students usually joined in their second year, I was averse to the idea of adding more stress and uncertainty into the mix. I felt like I was obligated to at least meet with the adviser to discuss the project, though, which is how I ended up in a discussion with Rameela before ever stepping foot on campus. She was kind, interested in me and my life, and straightforward about what the RA would look like and what the expectations were. I also discussed the opportunity with other current students and alumni, all of whom told me in no uncertain terms that working with Rameela was an absolute pleasure and an opportunity that wasn't to be missed. They were more correct than I can put into words.

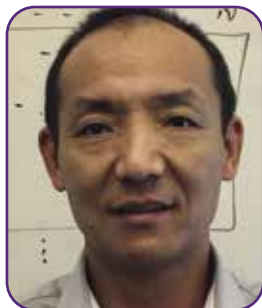
I joined the RA after hearing testimony from the other students and, from the start, it became obvious that Rameela was more than just a boss; she was a mentor and someone I could go to with questions or concerns that had nothing to do with our projects. She fiercely protected my time when collaborators would ask too much and made sure my class work for the first two years of the program was prioritized and I never felt overwhelmed. She gave amazing and constructive feedback while making sure to acknowledge everything I had done right, and she emphasized communication and collaboration skills I have found valuable in all other projects I have worked on since first year. She goes out of her way to send her students opportunities she thinks could be appropriate and helpful and leadership roles she thinks we'd be a great fit for. She starts every meeting, no matter how pressing the work is, by asking about us and our life and checking in on our progress in the program. She is the most responsive person in the entire department and

always makes the time for her students when we ask, even though she manages staff and has many other projects she is involved with. Rameela is my role model in this department, the field of biostatistics, and in life. I can think of nobody more deserving of thanks and accolades than her; she has made such an impact on my career and my life, and I am forever grateful!

Hao Wu

Submitted by Wenjing Ma

I would like to thank Hao Wu for all the inspiration he has brought to me. He has a very sharp mind and likes to make everything simple and straightforward. With his brilliant ideas and statistical mind set, I have learned a lot from him about how to apply advanced deep learning techniques and statistical learning to single-cell genomics data to develop useful tools for biomedical researchers. His ideas always work and have an elegant form.



Wu

He is also supportive of my every career decision. When I mentioned to him that I would like to pursue an academic career, he helped me build connections with other professors in this area and suggested I do a postdoc with them to have more statistical training. He also encouraged me to attend conferences to talk with other people and seek potential collaborations.

Besides academic support, he motivates me to be an independent and responsible researcher. When I was in the early stages of research and always worried about being scooped, he told me to have an abundance mind set and collaborate with people to make the cake bigger, instead of viciously competing with them. Later on, when I became more familiar with my research area, he suggested I do more critical thinking, rather than aimless work. He smoothly shifted the mentoring style from hands-on to hands-off to help build my independence in doing research. Overall, he is a very professional mentor, and I appreciate every effort he has poured into making my PhD grind easier and more fascinating.

Alex Kaizer

Submitted by Wenru Zhou

I am a fifth-year PhD candidate in biostatistics at the University of Colorado, Anschutz Campus. Alex Kaizer is my thesis mentor. My thesis topic is adaptive clinical trial design.

Kaizer has a great personality. He is patient, positive, thoughtful, and grateful. He always thinks about others. Although he has deep knowledge of biostatistics, especially in clinical trial design, he is also very humble. Because of the limitation of words, I will only talk about two important virtues he has.



Kaizer

When I met trouble in my research and the project could not move forward, he did not focus on pushing the project forward. Instead, he encouraged me to develop my independent thinking skills by trying to solve the problem. He is always ready to offer help if I need it. In addition, I gave birth to a baby during my PhD program. Since taking care of a baby is very time-consuming, I cannot even continue my research before sending the baby to daycare. Kaizer cares about the well-being of women and children, and he supports me by letting me decide my pace of research. Alex is willing to do this because he loves research, itself, rather than finishing more projects to get more money, and he wants to train students by developing their interests in research and research skills.

Kaizer facilitates student success. He reviewed my CV, cover letter, and emails for opportunities. This semester, I met some credit issues and needed to postpone my graduation. He agreed to support me with more funding than we discussed before. As an international student, we have many policy limitations on seeking a job and maintaining a visa. Kaizer is always supportive and helpful. Without his help, I could not have successfully found an internship last summer and gain experience at a pharmaceutical company. Without his support, I could not continue my valid status in the US after postponing my graduation.

In summary, Kaizer is a fantastic mentor for students. I am so thankful for everything he has brought to me during this period of my PhD. ■

Better Employer Records Could Advance Research, Statistics, Evaluation

Erica L. Groshen of Cornell University ILR School; Demetra Nightingale of Urban Institute; and Andrew Reamer, Youstina Magdy, and Madison Raju of The George Washington University

How could our national data infrastructure serve us better in the 21st century? As the pandemic struck the US in early 2020, policymakers moved decisively to help protect Americans' health and economic well-being. Now, as the pandemic recedes, important questions remain about jobs and work: How well did policy steps work? Could policies have been better targeted? What does the 'new normal' look like?

A new report suggests more uniform and enhanced standards for employers' records on workers could enable us to answer such questions quickly. Wage records maintained by employers contain valuable information about the business, its workers, and their pay. Some of these records are collected and used by governments for unemployment insurance programs, other policy and tax programs, research, and national statistics.

Even so, US wage record systems are characterized by few common standards in source data, minimal and uncoordinated data fields, and lim-

ited accessibility for analysis. These deficiencies impede production of more timely, accurate, relevant, and granular labor market statistics and research for the public good. In addition, nonuniform, noninteroperable wage records and collections make it costly for employers to comply with reporting requirements and benchmark data for their own purposes.

Jobs and Employment Data Exchange (JEDx) Initiative

Modern technology and data science offer a major opportunity to upgrade systems for employer wage records. One effort in this direction is the Jobs and Employment Data Exchange (JEDx) initiative, led by the US Chamber of Commerce Foundation. Currently, the main information in wage records that governments collect are a worker's identification code and quarterly earnings, plus the employer's identification code, location, and industry. The public-private JEDx initiative aims to enhance the content and systems for these records for the mutual benefit of businesses and government.

Potential for Improving Official and Other Statistics

A recent report published by the JEDx-Research Enhancement Project (JEDx-REP) and funded by the Alfred P. Sloan Foundation advises JEDx on how to best support research, statistics, and evaluation outcomes. The report



(<https://bit.ly/3H1BHx3>) finds that standardized records with richer detail on worker and business characteristics could benefit many important activities, including the following:

- **Official federal and state statistical reports:** Improved estimates of gross domestic product, gross domestic income, productivity, occupational trends, labor market dynamics, employment, and geographic conditions
- **Social science research:** Estimating interactions between earnings and education or training, the impact and nature of employer-jobholder relationships, and the spatial nature of work arrangements
- **Program evaluation:** Assessing the individual and community outcomes and costs and benefits of education and workforce development programs
- **Benchmarking, analytics, and tracking:** Informing local occupational demand and supply analysis, job quality measurement, local/state/regional economic development strategies, and equal employment opportunity regulations

Recommendations for JEDx

The report also presents the following recommendations for JEDx going forward:

1. Quickly develop prototypes of new data products of high value to data providers and users:
 - a. Improved benchmarking and analysis of regional/state/local occupational supply and demand
 - b. More rapid priority policy analysis (e.g., job impacts of extreme weather or high unemployment)
 - c. Analysis of social determinants of labor markets and labor force participation (e.g., long-term unemployment, worker skills, location of new or high-quality jobs)
2. Focus on data enhancements that will improve statistics and research:
 - a. Prioritize worker information likely to be easiest for employers to provide, particularly hours worked and paid; geocode work location and worker

residence; job title; employment start and stop dates and reason for separation; nature of employer-worker relationship (regular employee, full-time or part-time, union status); compensation, earnings, wages; identifying codes for employer and worker to facilitate linking for statistical and research purposes

- b. Collect earnings and hours information more frequently than quarterly, with more granularity and on a more timely basis
 - c. Devise a strategy for obtaining universal data (all workers, all employers, all states)
 - d. Explore other sources for several high-priority data enhancements difficult for employers to provide, including nonstandard workers, worker demographics, education and training attainment, occupation, duties, and skill requirements
3. Recognize different access modes are required to address different research uses, thus:
 - a. Include an explicit pilot to provide researchers with access to the data to generate products of value to policymakers, businesses, researchers, and other interested parties
 - b. Include government agencies in pilots to provide internal and/or external researchers with access to the comprehensive, fully curated microdata that underlie official statistics and other government information products, including any data shared by a JEDx system
 - c. Support the establishment of one or more public-private portals, such as an administrative data research facility (possibly state-sponsored) and explore tiered access for different kinds of research

Technological advances provide new opportunities for enhanced reporting systems—like JEDx—that can result in better data for employers, researchers, and policymakers to improve our understanding of labor markets and jobs. ■

MORE ONLINE
<https://bit.ly/41rC0td>

Statistics Without Borders Celebrates 15th Year, Aims to Update Charter



Matt Brems (he/him) is principal data scientist, technical excellence and product at DataRobot. He also founded BetaVector, a data science consultancy. Brems volunteers with Statistics Without Borders, serving on its executive committee as chair. He is a mentor with the Washington Statistical Society and Coding It Forward.



Sloka Iyengar is a neuroscientist and Indian classical dancer, passionate about relieving suffering through the sciences and arts. She is creating the foundation for the use of Bharatanatyam for creative aging and has developed productions that explore the intersections between the arts and neuroscience. Iyengar serves as the director of marketing and communication at Statistics Without Borders. Learn about her work at www.slokaiyengar.net.

Over the last 15 years, Statistics Without Borders volunteers have completed hundreds of projects around the world for not-for-profit and nongovernmental organizations. (Right now, there are active projects in Austria, Canada, Egypt, India, Malawi, Nigeria, and the United States.) They have accomplished this with support from the American Statistical Association but without accepting remuneration for their work.

In the last 15 years, the following has changed:

- Many projects have expanded beyond what one might expect from ‘statistics.’ There’s no bright line separating what is statistics from what is not, but projects increasingly involve aspects of software development, data engineering, and machine learning.
- The availability of the internet, open-source software, and resources to self-educate has made it significantly easier to do more across the globe.
- The importance of incorporating justice, equity, diversity, and inclusion into all work and decisions has become central.

Statistics Without Borders’ leadership last updated the outreach group’s charter in 2018, and they have recently been facing some good, but tough, questions from their volunteers—questions about the types of organizations they support and the commitments they make to their volunteers. For some questions, they don’t yet have great answers, so they are taking an opportunity to reflect.

Members of the executive committee connected for a strategic retreat in February. Michiko Wolcott volunteered her time and expertise to lead the governing board through the retreat, and they came away hoping to align the following:

- **Vision:** What is the ideal state of our world, as described by SWB?
- **Mission:** What does SWB do to help achieve its vision?
- **Guiding Principles:** What core values help dictate SWB’s actions and choices?

Information for External Use

Statistics Without Borders’ mission, vision, and guiding principles help people understand what the group is and does. If one has never heard of SWB and is thinking about recommending a client or volunteering, it’s important to know what SWB is. The vision, mission, and guiding principles provide that first insight into SWB.

A statistical analogy is principal component analysis. If you aren’t familiar with PCA, it’s an unsupervised learning technique. If you have many variables in your data, PCA can be used to combine these variables in a specific way. Your first principal component is the “most important” dimension of your data. That is, if you could only keep one dimension of your data, PCA indicates which is most important. (PCA does a lot more and uses a specific definition of most important.)

If you don’t have much time to read about SWB, reading its vision, mission, and guiding principles is like using the first principal component from your data in a model. This information won’t tell you everything about SWB, but it may be the information with the highest impact. It allows SWB to communicate effectively with prospective clients, partner organizations, and future volunteers.

Information for Internal Use

SWB governing board members want to empower volunteers to make decisions faster. Fifteen years ago, when four statisticians founded SWB at JSM, it was feasible for members of the executive committee to make most decisions. Now, SWB consists of roughly 2,500 volunteers throughout the world who complete around 30 projects annually. Governing board members know they need to make changes to how SWB operates to keep up. An updated and clearly communicated vision, mission, and set of guiding principles is key to empowering volunteers to make more decisions themselves.

When a volunteer—at any level of the organization—has a question about what decision they should make, the ideal outcome is they look to the vision, mission, and guiding principles. They might ask themselves, “In making this decision,



am I fulfilling SWB's mission? Am I moving us toward SWB's vision? Would an action violate any of SWB's guiding principles?"

Updating the vision, mission, and guiding principles isn't a perfect solution, but it's a start.

So, What Are the Vision, Mission, and Guiding Principles?

The governing board members are still working on them. If they intend to use them as fundamental building blocks for the work they do, they think it is paramount they get them right, and that takes time. They are also requesting feedback from all SWB volunteers by conducting surveys, holding office hours, and meeting directly with some of the most active volunteers. However, they have identified the following important themes:

- **Greater Good.** How do they prioritize the competing needs of the world, communities they aim to help, clients, and volunteers?
- **Do No Harm.** SWB's work should be positive and never harmful, but it's more

important that SWB's impact is positive and never harmful.

- **Professional Integrity and Ethics.** As with any statistics work, this includes impartiality in their analyses. SWB should not simply be a 'stamp of legitimacy' for a client's predetermined outcome. Instead, SWB should be their clients' partner, empowering them with statistical expertise. That might include training them on proper statistical methods, doing statistical work themselves, or both.
- **Equity.** Governing board members are taking steps to diversify SWB's membership at every level, but they think they can and have a responsibility to do more.

As SWB turns 15, governing board members are turning their attention toward 25 years and beyond. At JSM in Toronto, Ontario, Canada, they will have lots of updates regarding their new strategic direction.

To recommend clients to SWB or volunteer, email chair.statisticswithoutborders@gmail.com. ■

STATtr@k

84.51° Data Science Director Shares Advice, Skills Needed to Succeed



Chad Stripling is a director of data science at 84.51° (www.8451.com), where he serves its consumer packaged goods clients by creating new tools and products to provide value and insights and providing data science consultation using the company's portfolio of products. His primary focus is 84.51° Collaborative Cloud. You can reach him at Chad.Stripling@8451.com.

Chad Stripling—as director of data science at 84.51°, a retail data science media company—helps companies such as Kroger create valuable personalized experiences for shoppers. What skills does he use daily, and why did he choose data science as a career? He tells us here and offers advice for future data scientists.

Tell us a little about where you grew up and what led you to study statistics and data science.

I grew up moving all over the Midwest, as my father was a college football coach and my mother was a teacher. I think both their professions and backgrounds are the reasons I became passionate about math and data science. Math and data science allowed me to blend the values I learned growing up—attention to detail from football and the desire to learn and understand from education.

When did you start working at 84.51°, and what was your first role?

I started as an intern for 84.51° back in 2014. My first full-time position was within our communications and consulting teams, helping clients develop their marketing strategies. Another part of the role was building propensity models and measuring campaign results. I have had several roles within the company since then that focus on insights delivery and cloud computing.

What tools and skills do you use daily to do your job?

The team and I use Databricks, Azure, and other business intelligence tools to build and enhance our sciences and client offerings. We often code in Pyspark, SQL, and various other languages when needed. Tech stakes and languages continue to change year in and year out, so we are always learning and studying the newest techniques.

What is the most challenging part of your job as director?

The most challenging part of my role as a director is identifying the right areas on which to focus our energy. We as well as many companies and clients are continuously evolving and increasing our data science capabilities, which results in an ever-changing landscape. These changes cause conflicting priorities, making strategic planning a critical part of the role.

What is the most rewarding part of your job?

The most satisfying part of my job is seeing the team identify client questions and issues, collaborate on solutions, and deliver insights and recommendations to improve both our clients' and customers' lives.

What advice would you give a data scientist or statistician beginning their career?

Look to find as many opportunities as possible during college to gain real business experiences. You can do this through not only internships, but co-op programs and research experiences for undergraduates, as well. Last, use websites or universities that offer online training and certifications to gain knowledge on a data science specialty and add that achievement to your résumé.

Look to find as many opportunities as possible during college to gain real business experiences.

What do you wish you had learned while in school that would help you today?

One thing I wish I had learned while in school is how to tell a story with the data. Insights and measurements are only as good as the story and recommendations that come from them. Using data science and analytics to gain an understanding of a problem or challenge is only the first step to producing a solution.

What do you do for fun?

My wife, daughter, dog, and I love to get outside for hikes, kayaking, and exploring whenever we get the chance! ■

STATS4GOOD

ASA Committee Defends Statistics, Statisticians Around the World

One of the best things I get to do here in the Stats4Good column is highlight the many ASA groups and committees making an impact on Data for Good. An important one is the Committee on Scientific Freedom and Human Rights, whose charge includes addressing “violations of and threats to the scientific freedom and human rights of statisticians and other scientists throughout the world.” Data for Good makes the world a safer place through statistical science, and the Committee on Scientific Freedom and Human Rights makes the world a safer place for statisticians engaged in this work.

The committee has a long history of advocacy. It was established in 1979 in response to the enforced disappearance of Argentine government statistician Carlos Noriega during the “Dirty War.” Discussion of this issue led to the formation of an ad hoc committee to advocate for scientific freedom. In 1985, then ASA President Richard Savage gave a talk on hard/soft problems, what we now call Data for Good. Leading D4G advocates David Banks and Herb Spierer began their profoundly influential work by asking Savage how they could get involved in human rights research. The committee president at the time was Thomas Jabine, who led an effort to expand the mission to include human rights work.

Over the years, committee members have worked on projects throughout the world, sponsored JSM sessions on important topics of the day, and collaborated with international organizations such as Statistics Without Borders and Human Rights Watch.

JSM sessions are an important avenue for the committee. In recent years, it has sponsored sessions on the ASA ethical guidelines and best practices, statistics and fact-checking on migration at the US southern border, and the work of statistical humanitarian groups. The committee also coordinates efforts to support statisticians in the US and abroad subject to political pressure due to their scientific findings.

An example of the latter is the politically motivated prosecution of Greek statistician Andreas Georgiou, who has been persecuted for carrying out his work in a manner free from bias. Following the 2008 financial crisis, the European Union called for reform in the Greek national statistics

GET INVOLVED

In opportunities this month, recommend someone for the Prize for Young Scientists. This award from SciLifeLab and *Science* magazine recognizes the best PhD thesis work in the life sciences. Submissions, due July 15, must include an essay on the research.

Also this month, take a look at the JSM program. The conference is in Toronto this year, so planning early will help secure funding for those traveling internationally.



David Corliss is the lead of industrial business analytics and manager of the Data Science Center of Excellence at Stellantis. He serves on the steering committee for the Conference on Statistical Practice and is the founder of Peace-Work.

office. Georgiou, a well-respected statistician and economist, was recruited to lead the reform but came under pressure and, eventually, prosecution. The ASA Committee on Scientific Freedom and Human Rights has been a leading voice within the international statistical community, protesting these actions and calling for Georgiou’s exoneration and implementation of protections for scientific freedom in official statistical reporting.

This year at JSM, the committee is sponsoring a memorial session in honor of Jabine. A distinguished scientist, mentor, and ASA Fellow, Jabine authored a number of books, including *Human Rights and Statistics*. The session, to be held August 9 at 2 p.m., features a panel of leaders in Data for Good. Come be inspired and learn about how you can become involved in defending scientific freedom and human rights.

A large part of my mission for this column is to highlight people and programs making a positive impact with statistics and data science. Sometimes, though, it’s not all sunshine and rainbows. Justice analytics is like an onion: You cut into it layer by layer and sometimes cry. The fact that statistical science is such a powerful tool for justice can make it a target. When that happens, the Committee on Scientific Freedom and Human Rights steps in. To learn more about their work and how you can be part of it, visit their website at <https://bit.ly/3ogmTnI>. ■

STATISTICIAN'S VIEW

The United States Needs to Fill the Gaps in Its Crime Statistics



Janet L. Lauritsen is Curators' Distinguished Professor Emerita in the department of criminology and criminal justice at the University of Missouri - St. Louis and 2022 president of the American Society of Criminology. She also served as chair of the Panel on Modernizing the Nation's Crime Statistics for the National Academies' Committee on National Statistics and the ASA Committee on Law and Justice Statistics.

EDITOR'S NOTE

The comments here are adapted from Lauritsen's 2022 presidential address to the American Society of Criminology published in *Criminology* in 2023 (<https://bit.ly/402zF6r>) and presented at the March meeting of the Council of Professional Associations on Federal Statistics.

The US lacks sufficient data for many types of crime of great concern to society, and this is particularly the case for crimes falling under federal—as opposed to state and local law enforcement—jurisdiction. This lack of data poses significant problems for determining whether government resources are adequate for responding to these crimes and whether programmatic, legislative, or target-hardening efforts to prevent or reduce their occurrence are effective.

At this point, the crime data we do have is primarily focused on personal violence and property crime, often referred to by criminologists as “index” or “street” crimes, which include homicide, rape and sexual assault, aggravated assault, robbery, burglary, motor vehicle theft, and personal thefts. However, for many other types of crime, we are unable to answer basic questions about the levels and trends in the frequency with which they occur.

Consider for example, trends in financial law violations, fraud against government agencies, and embezzlements and pilferage against businesses. It is challenging to find estimates of these crimes and, when one appears to have done so, they will often find competing estimates, including some released by private groups. The amount of economic harm resulting from these types of theft crimes compared to the losses associated with the larcenies, robberies, and burglaries we do measure relatively well is challenging to assess. It is also difficult to know the level and rate of increase or decrease in crimes such as environmental law violations by businesses or persons and consumer financial and product/services fraud.

These types of data gaps are a problem not only for researchers who claim to specialize in knowledge about crime, but also for those who must respond to crime. I am routinely contacted by the media and others asking how often a particular crime occurs and whether it is increasing or decreasing, and I often find myself saying, “We don't know” or “I am not aware of any data that can answer that question.” The people I speak with who would like to be well informed about crime wonder how this can be possible in an era that seems to be awash in data.

The modernization of US crime data is critical for providing an empirically sound and more

complete description of the nature, distribution, and extent of different forms of crime; who is most affected and victimized by these crimes; and the extent of harm resulting from these incidents to both persons and society at large.

These general points were made in two reports released by the Committee on National Statistics Panel on Modernizing the Nation's Crime Statistics. This project was prompted by the Office of Management and Budget in partnership with the FBI and Bureau of Justice, and the panel's work involved an interdisciplinary group of scholars, practitioners, and stakeholders. The panel's first report recommended a new classification system for crime (www.nap.edu/download/23492), and the second report suggested methodological and implementation strategies for collecting data based on the recommended crime classification (www.nap.edu/download/25035). These efforts constituted the first major reassessment of the definition and coverage of US crime statistics since the Uniform Crime Reporting program was developed in 1929. The reports contain a wealth of information about the crime classification system, as well as recommendations and suggestions for how this work might move forward.

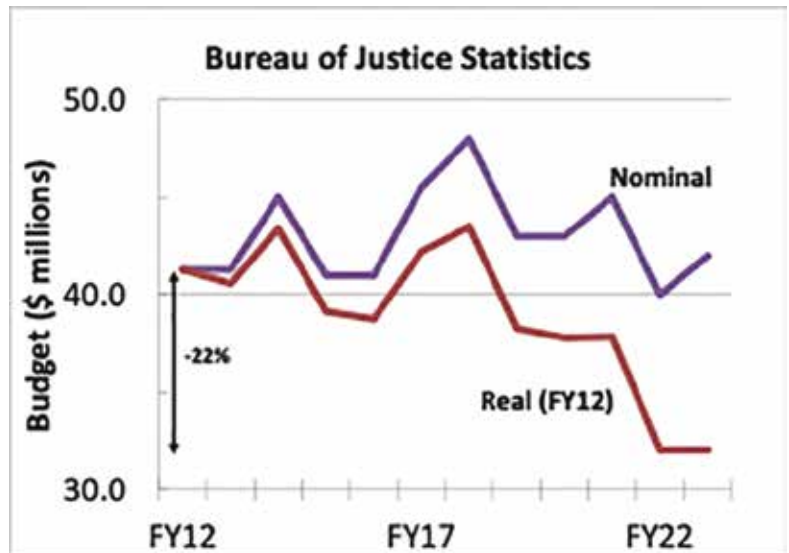
Of the 11 major categories of the panel's recommended crime classification, the first five major categories include violent and theft offenses that currently have the greatest degree of coverage in the nation's two major crime data sources. Data coverage for the remaining categories is woefully sparse and incomplete. These offenses include acts involving controlled substances, fraud, deception, corruption, public safety, and national security, as well as acts against the public order, environment and animals, and other offenses. The details of these categories are elaborated upon in the panel's first report and in my 2022 presidential address to the American Society of Criminology (<https://bit.ly/43qY8VZ>).

Finding and developing the data necessary to understand the full range of crime will not be easy. Many forms of crime will be more difficult to enumerate than the traditional index crimes, and simple counts of incidents may be misleading or uninformative. For example, a single ransomware attack might hobble the personal computer of one victim,

Categories of Crimes

Four-level classification with 11 first-level offense categories:

1. Act leading to death or intending to cause death
2. Acts causing harm or intending to cause harm to the person
3. Injurious acts of a sexual nature
4. Acts of violence or threatened violence against a person that involve property
5. Acts against property only
6. Acts involving controlled substances
7. Acts involving fraud, deception, or corruption
8. Acts against public order and authority
9. Acts against public safety and national security
10. Acts against the natural environment or against animals
11. Other criminal acts not elsewhere identified



The BJS budget for FY12–FY23 in nominal and inflation-adjusted dollars

It is also critical for the executive branch of the federal government to be committed to providing the coordination to develop the data necessary for setting priorities and policymaking, particularly because so many of these crime types fall under federal jurisdiction.

Without strengthened federal resources and financial supports—as well as governance for crime statistics that operates under the established principles and practices of a federal statistical agency—the US will continue to be plagued by incomplete crime data and an increasing set of competing so-called ‘facts’ about crime put forth by private companies with proprietary methodologies or organizations and individuals with vested financial and advocacy interests in their depictions of crime.

We must also begin to fill in the crime classification proposed in the panel’s first report with information about potential data sources for crimes not well measured. Ideally, this work would involve a Bureau of Justice Statistics ad hoc working group and criminologists, practitioners, and data holders with a wide range of knowledge about types of crime that are not well measured. The combination of knowledge from those in- and outside the statistical agency is necessary to further this progress, as it will require various forms of expertise. As information about potential data grows for each of the crime categories, a straightforward documentation of this information would serve as a major resource for academics, other researchers, journalists, policymakers, and the public.

For the safety of our communities and public servants, and to improve evidence-based policymaking, we should support efforts underway to fill the data gaps in our measures of crime and the criminal justice system. ■

or it might shut down the operations of an entire hospital, school, business, or municipality resulting in many more victims and more extensive damage and costs. The development of reliable new metrics will be necessary for the system of crime data collection methodologies that was recommended by the Committee on National Statistics panel.

New resources will be necessary to mount, coordinate, and govern these efforts, as well as to assess the quality and usefulness of the new and more detailed crime data. The criminology field must pay greater attention to the development of data that forms the basis of their research if they want their work to continue to benefit both scholarly and public interest.

I am heartened to see the major initiatives of this administration to provide more robust data on crime and our criminal justice system (<https://bit.ly/41qInwe>). The Bureau of Justice Statistics has been chronically under-resourced for the demands placed on it, and thus it is imperative it receive the necessary federal resources proposed in this year’s budget and beyond to do this work.



Gearing up for
TORONTO
Ontario, Canada • August 5–10
JSM2023

Get your passports ready and plan to head to Toronto, Ontario, Canada, August 5–10 for the statistical event of the year—the Joint Statistical Meetings.

With a focus on the 2023 theme, *One Community: Informing Decisions and Driving Discovery*, the JSM program consists of invited, topic-contributed, and contributed technical sessions, as well as poster presentations, roundtable discussions, professional development courses and workshops, award ceremonies, and countless other meetings and activities.

Here are special events, including the featured speakers and activities for early-career professionals. To view the full program and register, visit ww2.amstat.org/jsm.

Featured Speakers



ASA PRESIDENT'S INVITED ADDRESS

TBD

Monday, August 7, 4 p.m.



DEMING LECTURE

Malay Ghosh, University of Florida

Small Area Estimation: A Personal Perspective

Tuesday, August 8, 4 p.m.



ASA PRESIDENT'S ADDRESS

Dionne Price, US Food and Drug Administration

Tuesday, August 8, 8 p.m.



Don't Miss These Additional Lectures

IMS LAWRENCE D. BROWN PHD STUDENT AWARD SESSION

Sunday, August 6, 2 p.m.



Yaqi Duan, Massachusetts Institute of Technology

Optimal Policy Evaluation Using Kernel-Based Temporal Difference Methods



Yuetian Luo, University of Wisconsin - Madison

Tensor-on-Tensor Regression: Riemannian Optimization, Over-Parameterization, Computational Barriers, and Their Interplay



Tudor Manole, Carnegie Mellon University

Plugin Estimation of Smooth Optimal Transport Maps

MEDALLION LECTURE I



Ingrid Van Keilegom, Université catholique de Louvain

Copula-Based Cox Proportional Hazards Model for Dependent Censoring
Monday, August 7, 8:30 a.m.

WALD LECTURE I



Bin Yu, University of California, Berkeley

Seeking Boolean Interactions in Biomedicine and Proofs
Monday, August 7, 10:30 a.m.

MEDALLION LECTURE II



Runze Li, Penn State University

Feature Screening for Ultra-High Dimensional Data: Methods and Applications
Monday, August 7, 2 p.m.

IMS PRESIDENTIAL ADDRESS



Peter Bühlmann, ETH Zurich

IMS: What Does It Stand For? What Could It Stand For?
Monday, August 7, 8 p.m.

IMS GRACE WAHBA AWARD LECTURE



Wing-Hung Wong, Stanford University

Causal Inference by Encoding Generative Modeling
Tuesday, August 8, 10:30 a.m.

FLORENCE NIGHTINGALE DAVID AWARD



Karen Bandeen-Roche, Johns Hopkins University

Tuesday, August 8, 2 p.m.

BLACKWELL AWARD LECTURE



Ya'acov Ritov, University of Michigan

Minimax vs. (Empirical) Bayes Prediction
Tuesday, August 8, 2 p.m.

WALD LECTURE II



Bin Yu, University of California, Berkeley

Sparse Dictionary Learning and Deep Learning in Practice and Theory
Tuesday, August 8, 4 p.m.

MEDALLION LECTURE III



Yingying Fan, University of Southern California

High-Dimensional Random Forests Estimation and Inference
Wednesday, August 9, 10:30 a.m.

MEDALLION LECTURE IV



Aurore Delaigle, University of Melbourne

Measurement Errors in Diet and Nutrition
Wednesday, August 9, 2 p.m.

COPSS DISTINGUISHED ACHIEVEMENT AWARD AND LECTURESHIP



Bin Yu, University of California, Berkeley

Wednesday, August 9, 4 p.m. ■



2023 COPSS Awards

The Committee of Presidents of Statistical Societies presents awards annually to honor statisticians who have made outstanding contributions to the profession. This year, the following Leadership Academy winners were selected in addition to winners of the Distinguished Achievement Award and Lectureship, F. N. David Award, and George Snedecor Award. All awards will be presented at the Joint Statistical Meetings.

Maya Sternberg, COPSS Secretary/Treasurer

Leadership Academy Welcomes 8 More



Peng Ding

University of California, Berkeley

For outstanding contributions to the foundations and applications of causal inference and for both randomized experiments and observational studies, with emphasis on settings with high-dimensional covariates and complex structures.



Gongjun Xu

University of Michigan

For making breakthroughs on challenging problems in the behavioral sciences; for significant theoretical and methodological contributions to latent variable models, high-dimensional inference, and survival analysis; and for outstanding editorial services and leadership.



Edgar Dobriban

University of Pennsylvania

For fundamental contributions to the development of random matrix theory-based statistical methods, theory for analyzing massive data sets, uncertainty quantification in machine learning, including parallel analysis for principal component analysis, distributed statistical learning, scalable inference via random projections; for innovative methods for COVID-19 pooled testing using hypergraph factorization; and for outstanding mentoring.



Lorin Crawford

Microsoft Corporation & Brown University

For path-breaking research combining theory and methods of mathematics, statistics, and computing to generate new knowledge and insight about the genetic basis of disease and for exceptional mentoring of students from multiple scientific disciplines.



Jingyi Jessica Li

University of California, Los Angeles

For innovative and disruptive research at the junction of statistics and biology, especially in statistical genomics; for advocacy of the importance of statistical rigor in the biomedical science community; and for outreach efforts and commitment to improve the diversity in quantitative research.



Yates Coley

Kaiser Permanente Washington Health Research Institute

For impactful statistical contributions in the areas of ethical clinical prediction model development and learning health systems science and for significant leadership and advocacy to advance justice, equity, diversity, and inclusion in the profession and practice of statistics.



Avi Feller

University of California, Berkeley

For ground-breaking research in causal inference and program evaluation; for bridging statistics, public policy, and education research; and for commitment to building a more inclusive field.



Veronika Rockova

The University of Chicago

For ground-breaking contributions to theory and methodology at the intersection of Bayesian and frequentist statistics; for outstanding editorial service to the profession; and for excellence in the advising and supervision of doctoral students. ■



Distinguished Achievement Award Lectureship Goes to Bin Yu

Hayian Huang, Kathryn Roeder, and Jianwen Cai

The Committee of Presidents of Statistical Societies selected Bin Yu from the University at California, Berkeley for the 2023 Distinguished Achievement Award and Lectureship, which recognizes meritorious achievement and scholarship in statistical science and the significant impact of statistical methods on scientific investigations. She will deliver the lecture on veridical data science at the 2023 Joint Statistical Meetings in Toronto.

Yu's research focuses on practice, algorithm, and theory of statistical machine learning, interpretable machine learning, and causal inference. Her group is engaged in interdisciplinary research with scientists from genomics, neuroscience, and precision medicine. She and her group have developed the PCS (predictability, computability, and stability) framework for veridical data science toward responsible, reliable, and transparent data analysis and decision-making. PCS unifies, streamlines, and expands on ideas and best practices of machine learning and statistics to uncover and address a hidden universe of uncertainties well beyond sample-sample uncertainty in a data science life cycle.

In the past, Yu jointly developed a highly cited spatially adaptive wavelet image denoising method and a low-complexity, low-delay perceptually lossless audio coder that was incorporated in Bose wireless speakers. She also co-developed a fast and well-validated Arctic cloud detection algorithm. Her collaborative paper in 2011 with the Gallant Lab at Berkeley on movie reconstruction from fMRI brain signals received extensive and intensive coverage by numerous media outlets, including *The Economist*, *Forbes*, *Der Spiegel*, *Daily Mail*, *New Scientist*, and *Technology Review*. This work was named one of the best 50 inventions in 2011 by *Time* magazine.

Yu and collaborators also mapped a cell's destiny in *Drosophila* via stability-driven nonnegative matrix factorization and used the PCS framework to stress test or internally validate clinical decision rules used in the emergency room.

Additionally, Yu pioneered Vapnik-Chervonenkis-type theory needed for asymptotic analysis of time series and spatio-temporal processes. She made fundamental contributions to information theory and statistics through work on minimum description length and entropy estimation. Recently, she and her collaborators developed iterative random

Yu is awarded ...

For fundamental contributions to information theory and statistical and machine learning methodology; for interdisciplinary research in fields such as genomics, neuroscience, remote sensing, and document summarization; and for outstanding dedication to professional service, leadership, and mentoring of students and young scholars.

forests, X-learner for heterogeneous treatment effect estimation in causal inference, hierarchical shrinkage decision trees, and fast and interpretable greedy trees.

Yu is chancellor's distinguished professor in the departments of statistics and electrical engineering and computer sciences and Center for Computational Biology at the University of California, Berkeley. She earned her BS in mathematics from Peking University and her MS and PhD in statistics from UC Berkeley. She was an assistant professor at the University of Wisconsin - Madison, visiting assistant professor at Yale University, a member of the technical staff at Lucent Bell-Labs, and a Miller Research Professor at UC Berkeley. She was also visiting faculty at MIT, ETH, Poincare Institute, Peking University, INRIA-Paris, Fields Institute at the University of Toronto, Newton Institute at Cambridge University, and Flatiron Institute in New York City. She also served as chair of the department of statistics at UC Berkeley and had a crucial role in the intellectual and organizational vision for the UC Berkeley Division of Computing, Data Science, and Society as a faculty advisory committee member.

Yu is a member of the National Academy of Sciences and American Academy of Arts and Sciences. She was president of the Institute of Mathematical Statistics from 2013–2014, Guggenheim Fellow, Tukey Memorial Lecturer of the Bernoulli Society, and Rietz Lecturer of the Institute of Mathematical Statistics. In 2018, COPSS awarded the Elizabeth L. Scott Award to Yu. She holds an honorary doctorate from the University of Lausanne and served on the inaugural scientific advisory board of the UK Turing Institute of Data Science and AI. She is serving on the *Proceedings of the National Academy of Sciences* editorial board and is senior adviser at Simons Institute for the Theory of Computing at Berkeley. She will also give the Wald memorial lectures at JSM in Toronto. ■



Bin Yu

MORE ONLINE

To view the full JSM program and register, visit ww2.amstat.org/jsm.



F. N. David Award Goes to Karen Bandeen-Roche

Brian Caffo, Ingo Ruczinski, and Catherine Crespi



Karen Bandeen-Roche

The Committee of Presidents of Statistical Societies has named Karen Bandeen-Roche, Hurley Dorrier Professor and chair of the department of biostatistics at the Johns Hopkins Bloomberg School of Public Health, the 2023 recipient of the F. N. David Award. She is a highly established biostatistician with signature leadership in research, education, and administration.

A biostatistical generalist in her methods research, Bandeen-Roche has published nearly 300 peer-reviewed manuscripts about a wide range of topics. She has contributed greatly to latent variable model methodology and led methods work in the medical and epidemiology literature.

In particular, she has been a tireless leader in the promotion of biostatistical thinking in the field of aging. Her leadership roles at the Johns Hopkins Center on Aging and Health have guided an organization the size of a large statistics department.

As a bridge researcher who is helping to close the gap between aging research and biostatistics, Bandeen-Roche is a fellow of both the American Statistical Association and Gerontological Society of America. She has been an active participant and leader in major biostatistical and statistical organizations. Of particular relevance are her service as chair and executive committee member of the International Biometric Society Eastern North American Region, chair and executive committee member of the ASA Caucus on Academic Representatives, chair of the ASA Biometrics

Bandeen-Roche is awarded ...

For outstanding leadership and service in the biostatistics and statistics community; for her leadership in statistical education; and for her achievements in biostatistical research, particularly in the field of aging research and frailty.

Section, and chair of the Biostatistical Methods and Research Design National Institutes of Health study section, which represents the primary funding outlet for methodological, theoretical, and general applied biostatistical research.

Bandeen-Roche was also elected to the International Biometric Society Executive Board, which allows her to shape the vision and activities of the society. Since 2020, she has served on the National Institute of Statistical Sciences Board of Directors.

In education, Bandeen-Roche's leadership has expanded biostatistical instruction, including onsite, hybrid, and online teaching at all levels. The Johns Hopkins Bloomberg School of Public Health biostatistics department now has a large presence in online open education, including massive open online courses. At the same time, she remains a dedicated and passionate in-person educator and is regularly recognized as such.

Bandeen-Roche won the Bloomberg School's highest teaching award, the Golden Apple Award for Excellence in Teaching. In addition, she is a three-time recipient of the Advising, Mentoring, and Teaching Recognition Award, given annually by the students of the Johns Hopkins Bloomberg School of Public Health in recognition of outstanding educational contributions. ■

MORE ONLINE

To view the full JSM program and register, visit ww2.amstat.org/jsm.

She has been a tireless leader in the promotion of biostatistical thinking in the field of aging.

Michael Kosorok Receives George W. Snedecor Award

Sebastien Haneuse and Eric Laber

Michael R. Kosorok, W. R. Kenan Jr. Distinguished Professor of Biostatistics and professor of statistics and operations research, has been named the 2023 recipient of the George W. Snedecor Award from the Committee of Presidents of Statistical Societies. The award was given in recognition of Kosorok's foundational, creative, and original contributions to mathematical statistics; methodological developments in empirical processes and machine learning; advancement of precision health; and mentoring of students, postdocs, and junior faculty.

Kosorok has authored more than 200 peer-reviewed manuscripts appearing in top-tier journals and conference proceedings. In 2008, he published his monograph, "Introduction to Empirical Processes and Semiparametric Inference," which quickly became the canonical introduction to the area. Shortly thereafter, he focused his research on artificial intelligence and precision medicine. He was among the first to provide rigorous theoretical results for machine learning methods for estimation of optimal treatment regimes, including some of the earliest applications of Q-learning and direct search estimation. His paper on outcome-weighted learning (cited nearly 750 times) began lines of research on direct-search estimation and revealed connections between optimal treatment regimes and classification.

In the *Biometrics* paper titled "Estimating Individualized Treatment Regimes from Crossover Designs," Kosorok and his co-authors developed a novel direct-search estimator of the optimal regime under a 2x2 crossover design. Such crossover designs are common in pilot testing, rare diseases, and other settings in which recruiting a large pool of participants is difficult. Nevertheless, prior to this publication, there were no direct search estimators for estimating an optimal treatment regime under such a design. The proposed method accounts for carryover effects, uses a convex relaxation for computational efficiency, and is Fisher consistent.

This publication is an illustration of Kosorok's research modus operandi. He identifies an important practical problem, develops a novel methodological approach, and then provides a



Michael Kosorok

Kosorok is awarded ...

For foundational, creative, and original contributions to mathematical statistics; for methodological developments in empirical processes and machine learning; for advancement of precision health; and for mentoring of students, postdocs, and junior faculty.

rigorous and complete description of the method's operating characteristics.

In addition to his prolific publication record, Kosorok has shaped the field through his service and mentoring. He served as head of the biostatistics department at The University of North Carolina from 2006–2020 and chair of the COPSS Presidents' Award committee. He is currently president-elect of the Institute of Mathematical Statistics and has mentored more than 50 PhD students, many of whom now hold prominent positions at academic institutions or in industry. ■



2022 Diversity Mentoring and Workshop Program participants in Washington, DC

Hallmark Diversity Workshop and Mentoring Program Returns to JSM

The program features one-on-one mentoring, professional development, and networking

The 2023 Diversity Workshop and Mentoring Program will take place August 6–9 in Toronto, Ontario, Canada, during the Joint Statistical Meetings. This hallmark program brings together historically underrepresented minority (African/African American, Hispanic/Latino, and Native American) statisticians/data scientists at early- to mid-career levels (e.g., graduates, post-doctoral scholars, working professionals) with senior-level statisticians/data scientists from academia, government, and the private sector. The program features one-on-one mentoring and professional development such as small group discussions and networking.

Interested students and professionals are encouraged to apply on or before May 31. Limited student travel funding support is available, and full consideration for travel funding will be given to applications received by May 31. Applications received after the deadline will be considered as space allows.

For more information about the program and to fill out the mentee application, visit <https://bit.ly/40Oad63> or contact the chair, Madhu Mazumdar, at madhu.mazumdar@mountsinai.org.

This program is an ongoing initiative of the American Statistical Association through its Committee on Minorities in Statistics. Contact Emily Butler at emily.lynn.butler@gmail.com for details about sponsoring the JSM Diversity Workshop and Mentoring Program and other initiatives led by the Committee on Minorities in Statistics. ■



Scan this QR code to learn more about the workshop.



JSM Has Much in Store for Students

Are you an ASA student member who is thinking about attending the Joint Statistical Meetings? This year, we head to Toronto, Ontario, Canada, where you will find many opportunities to learn, network with other statisticians and data scientists, and get more involved in the association. Don't miss these special events created for student members:

Join Other Newbies

Don't miss the first-time attendee reception August 6 at 12:30 p.m. You will learn about new and innovate JSM sessions and social

events, as well as career opportunities. You'll also receive information about the EXPO, where you can win prizes and pick up merchandise. Most of all, you'll meet colleagues in your field.

Meet Fellow Student Members from Around the World

Join your contemporaries at the JSM Student Mixer August 7 at 6:00 p.m. Enjoy free food and drinks, enter a raffle, and mingle with other student attendees. Also learn how to navigate the largest gathering of statisticians in the world. ■

Volunteer and Attend a Short Course for Free

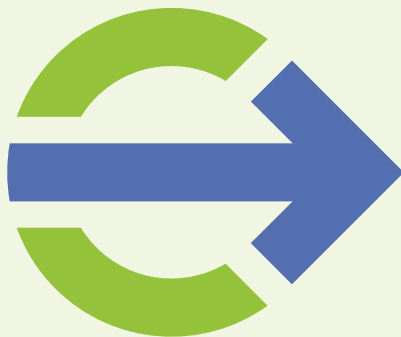
JSM's continuing education short courses give conference attendees the chance to learn from experts. As a volunteer monitor for these courses, you can attend one for free. Monitors help courses run smoothly and, in turn, get to follow along with course content and meet the instructor and attendees.

Contact Rick Peterson, the ASA's professional development and chapters and sections manager, at rick@amstat.org by May 31 to volunteer. ■

MORE ONLINE

To view the full JSM program and register, visit www2.amstat.org/jsm.

Check out upcoming ASA webinars.



Continue your
**PROFESSIONAL
DEVELOPMENT**

from your desk!

www.amstat.org/pd



CSP 2023 attendees chat during a poster session February 4 in San Francisco, California.

Live from San Francisco ... CSP 2023

Ralph M. Turner, 2023 Conference on Statistical Practice Steering Committee Chair



Ralph M. Turner is the chair of the 2023 Conference on Statistical Practice Steering Committee. He is also the owner and principal consultant of Phoenix Data Analytics.

The 2023 Conference on Statistical Practice took place February 2–4 in San Francisco and was attended by 358 statistical practitioners and data scientists who learned new statistical methodologies and best practices in statistical analysis, design, consulting, and programming to help solve real-world problems.

Opening Keynote Speaker

Dionne Price, 2023 ASA president, gave the opening keynote address, titled “Our Impact in the Evolving Data Landscape.” When she is not guiding the ASA, Price is the deputy director of the Office of Biostatistics in the Office of Translational Sciences of the Center for Drug Evaluation and Research at the FDA. She provides leadership to statisticians involved in the

development and application of methodology used in the regulation of drug products. She talked about her experiences as a statistical practitioner and working her way up the management system.

Price was enthusiastic about the importance of statistical analysis and encouraged the audience to keep engaging in continuing education to improve their statistical skills, but to also learn about topics outside statistics so they can stretch their expertise. She encouraged everyone to go to meetings and events that give them the opportunity to talk to specialty scientists one-on-one to find out what they are working on.

Closing Keynote Speaker

Megan Price, executive director of the Human Rights Data Analysis Group, gave the closing

keynote address, which was a new feature for 2023. The title of her talk was “Does the Truth Matter? The Role of Statistics in Human Rights Advocacy.” Price is a fellow of the American Statistical Association and human rights editor for the *Statistical Journal of the International Association for Official Statistics*. She also serves on the editorial board of *Significance* magazine.

Price discussed how she has used statistics to answer important questions about social justice and human rights. She gave an overview of traveling the world to collect data that was used as evidence in the prosecution of war crimes, among other human rights issues. Her talk was a rousing end to the conference.

Day 1 Courses

A highlight of CSP are the half-day and full-day courses that



ASA Associate Executive Director Donna LaLonde and ASA Executive Director Ron Wasserstein host a live broadcast of the *Practical Significance* podcast at CSP 2023.

take place on Day 1. This year's offerings included the following:

- **Advanced Programming in R** by William Lamberti
- **DEPICT: A Framework for Ethical Reasoning in Statistics and Data Science** by Mario Davidson and Jennifer Van Mullekom
- **Hands-On Python Programming for Predictive Analytics and Machine Learning** by Mei Najim
- **Version Control and Git for Data Analytics** by Bogdan Rau
- **An Introduction to Second-Generation P-Values and Their Use in Statistical Practice** by Jeffrey Blume and Megan Murray
- **Introduction to the Federal Statistical System: Challenges and Opportunities** by Brian Harris-Kojetin
- **Navigating Tough Conversations in**

Statistical Collaboration by Emily Griffith, Julia Sharp, and Zachary Weller

William Lamberti, who taught “Advanced Programming in R,” told Ralph Turner, CSP steering committee chair, he had a great time and thanked the steering committee for inviting him to teach. He said the students who came to his class were enjoyable and asked a lot of insightful questions—so much so that he wished he could have stayed longer and had more opportunities to interact with them.

Practical Significance Podcast

A special component this year was the live presentation of the *Practical Significance* podcast, co-hosted by ASA Executive Director Ron Wasserstein and ASA Associate Executive Director Donna LaLonde.

Practical Significance endeavors to inspire listeners with compelling stories from statistics and data science. The podcasts present a diverse and engaging lineup of ASA members who share their passions

2023 Conference on Statistical Practice Steering Committee

CHAIR

Ralph (Mac) Turner, Phoenix Data Analytics

VICE CHAIR

Julia Sharp, NIST

Allison M. Florance, Novartis Pharmaceuticals

Margaret Anne Betz, Purdue University

David Corliss, Fiat Chrysler

Mike Jadoo, Bureau of Labor Statistics

Anne Meibohm

Salvador Melendez

Sudeshna Paul, Emory University

Mary Jeanne Kwansy, Northwestern University

Kristin Mohebbi, ASA

Donna Lalonde, ASA

and professional initiatives. The live episode focused on conference attendees' experiences at CSP.



CSP 2023 attendees enjoy a coffee break February 4 in San Francisco, California.

Student Poster Awards

All student posters presented at CSP were evaluated at the conference by a panel of judges using structured rating scales. Judges rated the posters on the topic, methods used, and presentation of the material visually and orally. Winners received a certificate from the ASA and a one-year student membership. Following are the winners:

1. **Adeline Guthrie**, “A Bayesian Approach Towards Balanced Probability Calibration and Boldness” (First Prize)
2. **Cody Leporini**, “Automation of Personalized Reports: Effective Communication Through Data Visualization” (Second Prize)
3. **David Edwards**, “Quantifying Polarization in Newspaper Media” (Third Prize)
4. **Megan McCabe**, “An Overview of Statistical Approaches and Operational Challenges Related to Non-Concurrent Controls in Platform Trials” (Third Prize)

Honorable mentions went to Yuyan Yi for “CW_ICA:

An Efficient Dimensionality Selection Method for Independent Component Analysis,” Paula Hatum for “A Dynamic Bayesian Network Model for Predicting the Resilience of Seagrass Ecosystem to Future Heatwave Events,” and Christopher Grubb for “Automating Data Cleaning, Merging, Processing, and Visualization in Real Time.”

Travel Award Winners

In addition to the student poster awards, The Lingzi Lu, John Bartko, and Lester R. Curtin awards offer registration and travel support to students attending the conference.

The John J. Bartko Scholarship was awarded to Michael Palazzolo. Yuxuan (Daisy) Jin won the Lester R. Curtin Award, and Lydia Suzanne Gibson won the Lingzi Lu Memorial Award.

Networking

The smaller size of CSP means attendees have opportunities to come together, converse with each other, and digest what they are taking in at the conference. Gatherings included meals organized for isolated statisticians and those practicing in health care. Although only one poster session was an

official mixer, all three of these sessions served to attract small crowds, leading to in-depth conversation and connection among the attendees.

Concurrent Session Presentations

Paper presentations run concurrently over the last two days of the meeting. This year, talks focused on a range of topics and included “Precision Medicine with Imprecise Measurements: Exploring Measurement Error in Personalized Decision-Making” and “Network Optimization for Real-World Problems: Vehicle Routing Problem in Supply Chain.” Additionally, there was a panel session, “Leveraging the ASA Ethical Guidelines for and by Practicing Statisticians,” and several papers about issues related to SARS-Cov19 such as “Adjusting Incidence Estimates with Laboratory Test Performances: A Pragmatic MLE-Based Approach Motivated by a Longitudinal Study for SARS-CoV-2 Incidence.”

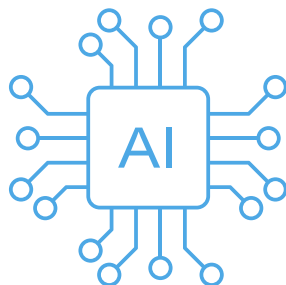
CSP 2024

The 2024 Conference on Statistical Practice will take place February 27–29 in New Orleans. Visit ww2.amstat.org/meetings/csp/2024 for details. ■

Early Registration Deadline on Horizon for AIPM

Demissie Alemayehu of Pfizer and David Madigan of Northeastern University

The early registration deadline of April 30 is approaching for AIPM 2023—a platform for statisticians, data scientists, regulators, and other professionals to address the challenges and opportunities of AI in pharmaceutical medicine; foster collaboration among industry, academia, regulatory agencies, and professional associations; and propose recommendations



with policy implications for proper implementation of AI in promoting public health.

The theme of this year's conference is "AI and Causality," and Nobel laureate Guido Imbens of Stanford University is the keynote speaker.

The one-day symposium is scheduled for June 5 at the Portland Ocean Gateway in Portland, Maine.

Details of the symposium, which can be attended in person or virtually, can be found at <https://roux.northeastern.edu/aipm>. ■



Register today for

2023 Symposium on Risks and Opportunities of AI in Pharmaceutical Medicine

Join leaders from industry, academia and regulatory agencies for this innovative one-day event

Presented by



June 5 in Portland, Maine

roux.northeastern.edu/aipm

MWM: Free Virtual Workshop for Statistics and Math Teachers

The American Statistical Association will host Meeting Within a Meeting—a free, virtual statistics workshop for middle- and high-school math and science teachers—July 24–25, with additional opportunities to continue learning all year with community-building and virtual learning options. This workshop is being conducted on behalf of the Joint Committee of the American Statistical Association and National Council of Teachers of Mathematics. This year’s theme is “Building the Future Through Student Engagement with Data and Statistics.”

The MWM program provides middle- and high-school mathematics and science teachers an opportunity to discuss and apply the data analysis, data science, and statistical concepts embodied in the NCTM Catalyzing Change books and the ASA’s *Guidelines for Assessment and Instruction in Statistics Education (GAISE) Report*. The workshop emphasizes the growth of statistical literacy and thinking as teachers explore problems that require them to formulate questions and collect, organize, analyze, and draw conclusions from data. Teachers will learn to use strategies and technology tools that support students’ learning and empower them to investigate questions using real-world data. The full program schedule, including presenters and topics, is available at www.amstat.org/education/mwm.

The MWM workshop was designed to enhance educators’ understanding of statistics and

provide them with hands-on activities they can use in their own classrooms to strengthen the teaching of statistics in their schools. A secondary goal was to encourage cooperation between mathematics and science teachers in the teaching of statistics and make connections between teachers and local statisticians. “One of the primary missions of the American Statistical Association is to work for the improvement of statistical education at all levels,” said Ron Wasserstein, the ASA’s executive director. “We are pleased to reach out to the K–12 mathematics and science community through the MWM workshop and follow-up activities,” he added. “MWM will not only enhance understanding and teaching of statistics concepts in the classroom, but also provide participants with a network of statisticians and educators to assist in developing the quantitative literacy of their students.”

The workshop is free, though space is limited and registration is required by June 30 at www.amstat.org/education/mwm. Around 100 teachers are expected this year. Due to support from the ASA Biopharmaceutical Section, a small stipend is available. Participants engaged throughout the workshop will also receive a certificate documenting 10 hours of professional learning that may be submitted to their local agency for CEUs.

MWM was held in person at the Joint Statistical Meetings from 2007–2019 and has been held virtually since 2020. Katherine Halvorsen of Smith

BAPS to Be Held in June

The American Statistical Association/National Council of Teachers of Mathematics Joint Committee on Curriculum in Statistics and Probability will hold the Beyond AP Statistics (BAPS) workshop after the US Conference on Teaching Statistics (USCOTS) on June 4 at Penn State University.

BAPS is offered for experienced AP statistics teachers and designed to strengthen and expand teachers’ statistics backgrounds by introducing them to topics beyond the content of the typical AP Statistics course.

To register for BAPS, you go to <https://bit.ly/3mMOxZe>. USCOTS registration is not required to attend. High-school teachers can apply online at <https://bit.ly/41E6g3O> for registration grants to attend USCOT. The cost of the workshop is \$50.

College served as MWM program chair from 2007–2021. Hollylynn Lee and Gemma Mojica of NC State University have served as co-chairs since then. Both are also co-directors of the Hub for Research and Innovation in Statistics Education (HI-RiSE) at the Friday Institute. Additionally, ASA K–12 Statistical Ambassador Christine Franklin is on the planning committee and has been involved with MWM since the first workshop in 2007.

More free K–12 statistics education resources are available at <https://bit.ly/41HqVUI> and www.statisticteacher.org. ■

Obituary

Don Ylvisaker

Jan de Leeuw, Rob Gould, and Ker-Chau Li, UCLA Department of Statistics

Don Ylvisaker, a fellow of the American Statistical Association and Institute of Mathematical Statistics, passed away peacefully on March 20, 2022.

Don played a pivotal role in establishing the UCLA Department of Statistics. As head of the division of statistics within the UCLA Mathematics Department, he was instrumental in shaping the personality of the emerging department as one focused not just on theory, but also teaching, consulting, and computation.

Don was born in Minneapolis in 1933 and earned a BA in mathematics and economics from Concordia College, an MA in mathematics from the University of Nebraska, and a PhD in statistics from Stanford. His dissertation was titled “On Time Series Analysis and Reproducing Kernel Hilbert Spaces” and his adviser was Emanuel Parzen.

He joined UCLA in 1968 and, although he retired in 1996, was extremely active in the department he helped found. Don rarely missed a faculty meeting or an opportunity to have coffee with his colleagues and discuss statistics, campus politics, or poker. He



Don Ylvisaker

was known as a great teller of stories, which were often about courtroom statistical arguments, lottery oddities, games, and professional magicians.

Don’s research placed him in the center of some of the most important issues of our time, including the use of adjustments in the US Census, counting homeless, and—indirectly at least—the O.J. Simpson trial. For many years, he was a statistical consultant to the California Lottery and advised the lottery on a great number of issues, including ensuring random outcomes for some of their more elaborate games.

Don began his career as a mathematical statistician. At a time when computer resources were scarce and rudimentary, he specialized in stochastic processes for modeling complex phenomena. While most research in statistics deals with noisy data gathered by either observational studies or design

of experiments, a natural connection of his expertise to the complexity study in computer science gradually emerged. Don became one of the few visionary statisticians to focus on error-free data generated by computer models.

In 1984, Don presented an IMS special invited lecture and published a paper titled “Prediction and Design” (*Annals of Statistics*, 1987). This is a subject in which he had long been interested and to which he made substantial contributions. The paper provided a broad framework—G-MAP (Gaussian, Markov Associated Process)—for connecting a wide range of problems concerning finite observation of a stochastic process, thus presenting a fresh perspective to bridge Gaussian Markov random field, kriging in geostatistics, infinite dimensional estimation under reproducing kernel Hilbert space, model robust design, time series sampling, etc. His papers on design and analysis of computer experiments are among the most highly cited in the area.

Don’s writing is elegant and precise, warm and candid. A sense of his personality is captured in a transcribed record of a lively dialogue he had with his longtime collaborator, Jerry Sacks, in “After 50+ Years in Statistics, an Exchange” (*Statistical Science*, 2012).

This dialogue portrays how Don's research transformed from mathematics-driven statistics to data-driven statistics in response to the rapidly evolving world and several critical moments, including the unexpected loss of Jack Kiefer, founder of optimal design.

The current UCLA Department of Statistics was created on the foundation of Don's view of statistics. Since 1986, the division of statistics in the department of mathematics had some autonomy in constructing its undergraduate and graduate courses, but not many resources were available for a graduate program and statistics research. It is fair to say mathematics saw the importance of statistics service teaching, but it was more reluctant to prioritize statistics research, especially the data and computing-centered statistics Don envisioned. Thus, hiring statisticians who could help the division grow became increasingly problematic. Don was convinced statistics at UCLA could only flourish outside the mathematics department.

In 1986, the dean of social sciences proposed a program to overhaul graduate teaching and research in quantitative methods in the social sciences. He also created a campus-wide committee, which included Don from the division of statistics, to advise on the construction of the program.

Don saw an opportunity to promote a far-reaching reorganization of statistics. He made sure those hired into the social sciences program were data and computing oriented. The ultimate goal of the reorganization was a stand-alone department of statistics. To grow UCLA statistics, he also realized it was necessary to build on the foundation of undergraduate statistics teaching. Thus, a great deal of the initial effort from the interdisciplinary group that grew out of the social science initiative was on modernizing lower-division statistics teaching.

Don was instrumental in obtaining large NSF grants to reorganize and computerize statistics teaching and research. Especially after the 1994 retirement wave in the division of statistics, a number of lecturers were hired into semi-permanent positions and into full participating membership in the statistics group. After more than 25 years, most of them are still there.

The data emphasis in Don's philosophy was evident in the establishment of a statistical consulting center, in searching for contacts within outside companies and organizations in the Los Angeles area, and in the initial moves to create a professional master's degree (all of this in an up-to-then nonexisting department). It was also a natural outcome of Don's view of statistics that

the initial members of the new department had degrees in a variety of disciplines, not just statistics or mathematics. Data is everywhere.

It goes without saying that subsequent developments have shown Don's view anticipated world-wide developments in the statistics discipline, even to the extent that some statistics departments now want to have "data science" in their names.

Don's influence and personality have had a deep and lasting effect on the UCLA Department of Statistics. He was a strong advocate for and supporter of DataFest and served, without fail, as a judge for the annual event, even after moving to Santa Barbara. In honor of his commitment and support, the Best Insight Award has been renamed the Don Ylvisaker Best Insight Award.

Although Don's retirement was 26 years ago, he kept close tabs on department news and communicated frequently with his colleagues. His contributions are long-lasting and his loss is deeply felt. To keep Don's memory alive, the department will be giving an annual award—the Donald Ylvisaker Award for the Best Practice of Statistics—to the graduate student whose statistics practice best reflects Don's sense that the truth of statistics is best expressed in real problems.

ASA COMMITTEE ON MEMBERSHIP RETENTION AND RECRUITMENT

Member Feedback Sparks Initiatives

Charged to promote and preserve membership in the association, the ASA Committee on Membership Retention and Recruitment works on initiatives in this vein. Several such initiatives are underway: focus groups to understand qualitatively the current membership experience; networking opportunities; and efforts to reinstate a fun tradition at the Joint Statistical Meetings.

Focus Groups

To pursue the committee's charge, committee members work to foster a vibrant community in which everyone feels welcome and included. Building community is a process that requires collaboration, so committee members work with chapters, sections, other committees, and individuals to understand the needs of our members and how, working together, we can meet those needs.

To help us understand what is important to the ASA community, we spent part of 2021 and 2022 conducting research with focus groups of current and former members. We wanted to learn what was working and what was missing. After reading recorded transcripts, comments, and suggestions from those who participated, we came away with the following key learnings:

- **Making connections with other members is critical.** Individuals from each focus group discussed the importance of making

connections with other ASA members. They noted it is challenging at all stages of membership and intentional focus on networking opportunities is needed. We need to be sure to identify opportunities so all members (e.g., industry, government) have a sense of belonging.

- **There is a lack of awareness of existing opportunities within the ASA.** There were suggestions for how to target specific groups with specific activities. Members are individuals who might have different needs. There were suggestions to provide additional resources to sections and chapters to help raise awareness of the opportunities the ASA provides for its members.
- **Communication is challenging.** This is related to the previous item but focuses on how we communicate. Is email the best way to communicate with members? What more can we do with social media platforms? Different demographics favor different methods of communication, so we need to employ a variety of methods. Our takeaway was that identifying the best method and messaging depends on the audience.
- **We need to increase our effort to promote data science.** The field

of data science is exciting and exploding. The ASA should play a larger role in it and provide guidance to those who are interested in it.

- **ASA perspective on advocacy:** While recognizing members will have diverse perspectives on any issue, participants agreed it was important that the ASA represent the profession. It was also expressed that it's important the board's process for making advocacy-related decisions be sound and transparent.
- **Mentoring is critical at all stages.** Participants appreciate the efforts of the various mentoring programs. This is an area for growth.
- **The value of journals:** Access to journals was acknowledged as a significant member benefit.
- **Participation in conferences:** The opportunity to participate was identified as essential to both gain knowledge and build professional networks. We need to be creative about opportunities for participation.
- **Appreciation of the ASA and the value it brings to its members:** Participants acknowledged that having a professional community was essential to their success.

Our data was qualitative, so consider the results as qualitative

2022 Committee on Member Retention and Recruitment

Theresa Utlaut	Chair (2021–2022) Member (2020–2022)
Erin Wiley	Vice Chair (2020–2023) Member (2018–2023)
Mark Otto	Membership Vice Chair (2017–2022)
Yingwen Dong	Member (2021–2023)
Will Eagan	Member (2020–2025)
Ann Marie Matheny	Member (2022–2024)
Anindya Roy	Member (2020–2022)
Sourav Santra	Member (2022–2024)
Mark Ward	Member (2017–2023)
Amy Farris	Staff Liaison (2002–2025)
Kim Gilliam	Staff Liaison (2019–2030)
Donna LaLonde	Staff Liaison (2015–2025)

2023 Committee on Member Retention and Recruitment

Will Eagan	Chair (2023) Member (2020–2025)
Yingwen Dong	Vice Chair (2023) Member (2021–2023)
Elizabeth Mannshardt	Membership Vice Chair (2023–2025)
Su Chen	Member (2023–2025)
Ann Marie Matheny	Member (2022–2024)
Sourav Santra	Member (2022–2024)
Mark Ward	Member (2017–2023)
John Watts	Member (2023–2025)
Erin Wiley	Member (2018–2023)
Cong Ye	Member (2023–2025)
Amy Farris	Staff Liaison (2002–2025)
Kim Gilliam	Staff Liaison (2019–2030)
Donna LaLonde	Staff Liaison (2015–2025)

summaries of a nonrandom sample with bias in the interpretation. They should not be viewed as a comprehensive summary of the entire membership population. Nevertheless, we do find the information useful and think the committee and broader community can use what we learned to help increase membership value.

To find participants for the focus groups, we developed an interest form, which was shared via email with all ASA members. A follow-up invitation went out in *Member News*. We sent invitations to participants with the goal of forming groups representative of employment sector, length of membership, race, gender, chapter participation, and section participation.

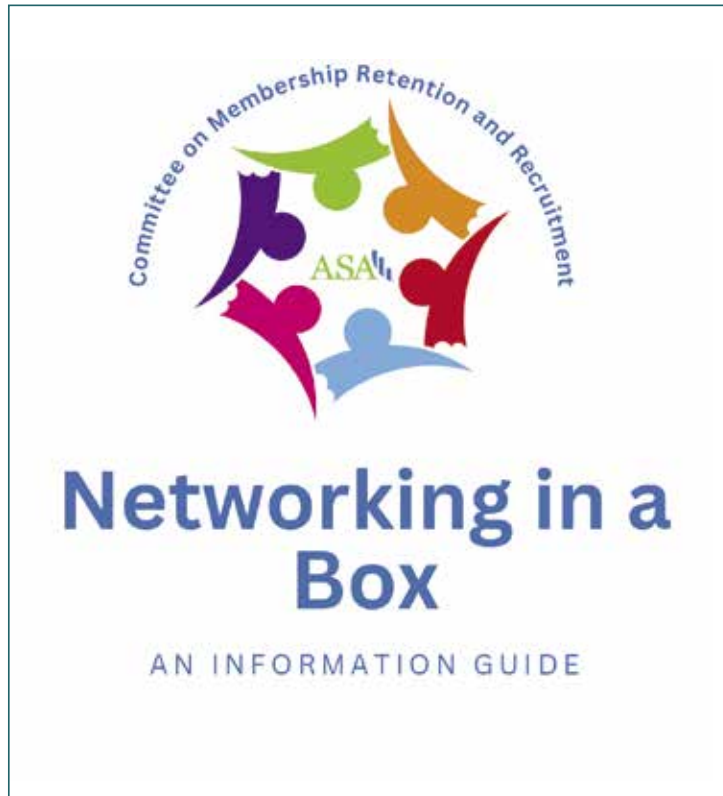
Each focus group session lasted an hour with facilitated discussion about different aspects of ASA membership. We also collected information from those who were not able to participate in the focus group sessions through an online form. We conducted nine focus group sessions, including a pilot with members identified by the Council of Chapters Governing Board, ASA GivesBack Leadership Team, and one committee from the Membership Council.

Each session took on a life of its own, depending on the direction the participants took it. By using the same set of questions, we attempted to consistently address areas of interest. The questions were selected from the following as time permitted:

- What do you “like” about ASA? What don’t you like about it?
- What aspects of your professional life are you

finding challenging (and how can ASA help)?

- How can we improve the value of ASA membership?
- Tell us about your involvement in ASA sponsored meetings.
- How important is ASA to your professional networking?
- How important is membership in ASA versus other statistical organizations?
- What journals and ASA-sponsored meetings do you find most useful?
- How could the ASA improve its communication with you?



The committee recently released *Networking in a Box*, a guide to hosting networking events for the statistics and data science communities.

Networking in a Box

The committee recently released *Networking in a Box* at <https://bit.ly/3zXGY4M>. Inspired by the success of *DataFest in a Box* (<https://bit.ly/40eDANA>), *Networking in a Box* is a document describing how to host a successful networking event for the statistics and data science communities.

The information guide contains several sections, starting with the ASA Code of Conduct. Considering how important students are to the future of the ASA and the immense success of student chapters, a section is dedicated to events catering to such an audience. The Rules of Thumb section provides helpful insights and brings up the Committee on Membership Retention and Recruitment Speakers Bureau.

The guide walks you through setting up and conducting a successful event from start to

finish. It instructs on how to recruit, how to build connections on social media, how to participate in ice-breakers and activities, and how to follow up.

Committee members encourage suggestions for improving *Networking in a Box* and look forward to hearing feedback from events held using the guidance.

Stat Bowl

- What is your degrees of freedom of the t -test?
- What comes before:
_____ Smirnov test?
- Who was the first ASA president?
- In which year was the ASA established?

Know all the answers? Want to test your knowledge? In the 2000s and early 2010s, the ASA Stat Bowl at JSM was a fun-filled and exciting event for students. It offered a nail-biting trivia competition covering the history of statistics, the ASA, and statistical methodology.

The Stat Bowl has not been part of JSM in recent years, but Committee on Membership Retention and Recruitment members are working hard to bring it back.

Are you interested? Want to be a contestant? Want to help organize? Want to sponsor? Reach out to a committee member. Visit <https://bit.ly/3AcvMS4> to find email addresses for all members. ■

chapternews

San Francisco Bay Area

The San Francisco Bay Area Chapter recently held its fourth K–12 student summer project program. The goal of the program—started by former chapter president Li Zhang in 2019—is to provide students with mentoring from chapter officers and volunteers during student-designed projects.

The kick-off meeting for the 2022 program took place June 4. During the meeting, students were introduced to the program objectives and assigned to mentors. Throughout the next two weeks, students worked with their mentors to brainstorm ideas, lay out a project plan, and finalize their data sources. During the three months of summer, students worked toward their objectives. Their efforts culminated in project presentations on September 11, 2022, via video conference.

Students presented the following work to chapters members and gained feedback:

Detecting Freezing of Gait in Parkinson's Patients Using Machine Learning Methods

- **Anurag Jakkula**, 11th Grade, Dublin High School

Mentors:

- **Ron Yu**, Executive Director of Biostatistics, Gilead Sciences; Director of Public Relations for SFASA
- **Dong Xi**, Statistical Adviser, Gilead Sciences

The Relationship Between GDP and Mental Disorders Globally

- **Vivian Wang**, 12th Grade, Aragon High School

Mentor

- **Jerry Ping**, Director of Biostatistics, Pharmacyclics, an AbbVie Company

Comparison of Private and Public Colleges in the United States

- **Anna Khodakovskaia**, 9th Grade, Lycée Français de San Francisco
- **Amelia Surdulesku**, 9th Grade, Lycée Français de San Francisco

Mentor

- **Tao He**, Associate Professor of Statistics, San Francisco State University

Relationships of Sleep Patterns and Demographics: A Case Study of Undergraduates from Taiwan

- **Elaina Li**, 9th Grade, San Mateo High School
- **Avelyn Liang**, 10th Grade, San Mateo High School

Mentor

- **Ray Lin**, Principal Statistical Scientist, Genentech/Roche; Past President of SFASA

For additional information about the mentoring program, email sfasaofficers@googlegroups.com. ■



How Can We Help?

We want to help you share your own news with colleagues and showcase your latest successes.

It is important to us that everyone knows about your research, recent awards, and promotions!

If you have any news you would like to share, email megan@amstat.org.

Come to Your Census

Join the U.S. Census Bureau to help produce quality data that enable Americans to better understand our country—its population, resources, economy, and society.

Your Work as a Mathematical Statistician at the Census Bureau

- Design sample surveys and analyze the data collected.
- Design and analyze experiments to improve survey questionnaires and interview procedures.
- Improve statistical methods for modeling and adjustment of seasonal time series.
- Perform research on statistical methodology that will improve the quality and value of the data collected.
- Publish research papers and technical documentation of your work.

Requirements

- U.S. citizenship
- Bachelor's, Master's, or Ph.D with at least 24 semester hours in math and statistics (see Web site for more specifics on required coursework)

Apply at www.census.gov, click on Census Careers, Type of Position, Professional/Scientific/Technical, Math Statistician

The U.S. Census Bureau is an Equal Opportunity Employer.



U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU
census.gov

Professional Opportunity listings may not exceed 65 words, plus equal opportunity information. The deadline for their receipt is the 20th of the month two months prior to when the ad is to be published (e.g., May 20 for the July issue). Ads will be published in the next available issue following receipt.

Professional Opportunities vacancies also will be published on the ASA's website (www.amstat.org). Vacancy listings will appear on the website for the entire calendar month. Ads may not be placed for publication in the magazine only; all ads will be published both electronically and in print.

Employers are expected to acknowledge all responses resulting from publication of their ads. Personnel advertising is accepted with the understanding that the advertiser does not discriminate among applicants on the basis of race, sex, religion, age, color, national origin, handicap, or sexual orientation.

Also, look for job ads on the ASA website at <https://jobs.amstat.org/jobseekers>.

New York

Department of Biostatistics at the University at Buffalo invites applications for tenure-track assistant/associate professor expected to develop an extramurally funded independent research program, with emphasis on graduate-level teaching, mentoring graduate and under-graduate students, developing interdisciplinary collaborations and engaging in service activities. PhD in statistics/biostatistics or related quantitative fields required with experience and/or strong interest in interdisciplinary research preferred. Anticipated start August 2023. Apply online: www.ubjobs.buffalo.edu/postings/39317. The University at Buffalo is an affirmative action/equal opportunity employer and, in keeping with our commitment, welcomes all to apply, including veterans and individuals with disabilities. ■

This month's Top 10 is the 'Top Ten April Fool's Jokes for Podcast Hosts to Play on Their Producer'

As is tradition, *Amstat News* continues its hilarious offering by ASA Executive Director Ron Wasserstein, who delivers a special Top 10—one that aired during a recent edition of *Practical Significance*. As an April Fool's joke in Episode 28, Ron thought it would be amusing to imagine practical jokes he and co-host Donna could—but wouldn't—pull on Kim, the podcast's producer. He says, "Of course, we wouldn't do any of those things because Kim is a great producer and could pull way worse practical jokes on us. In fact, if I sound like Alvin the Chipmunk and Donna sounds like Marge Simpson next month, you will know why."



Wasserstein



To listen to the *Practical Significance* podcast, visit <https://magazine.amstat.org/podcast-2>.

10



Keep telling our producer she is muted, even though we hear her just fine.

09

Challenge her ... editing ... skills by ... putting ... in ... pauses where ... they ... make no ... sense.

08

Skip number 8 in the top 10 list just to see if she notices.

07

Use a lot of statistical jargon in a way that makes no sense but tell her the audience will totally get it.

06

Read the top 10 list out of order just to see if she notices.

05

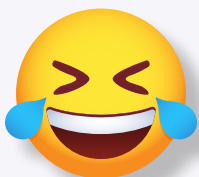
Inform her that we are switching from a monthly podcast to a weekly, effective immediately.



04

Mention that listener numbers are down in Vladivostok and tell her she needs to go there to investigate.

03



02

Mention that listener numbers are down in Maui and the podcast hosts need to go there to investigate.

01

Insist that what the podcast needs is more cowbell.



Women in Statistics and Data Science



Come grow with us in the Evergreen State!

OCTOBER 25–27, 2023 | BELLEVUE, WASHINGTON

WSDS brings together a vibrant community of talented women to share their perspectives on the role of women in today's statistics and data science fields. It offers empowering opportunities for personal and professional growth—establish fruitful collaborations, share your knowledge, and grow your influence. Join us this fall!

At WSDS, doors open wide to:

- Technical talks on important, modern and cutting-edge research
- Powerful plenary sessions
- Informal networking events



Scan me!

PARTICIPATE

Concurrent and Speed Session Proposal Submission

March 1 – April 14

Speaker Registration

June 1 – July 14

ATTEND

Early Registration

June 1 – August 24

Regular Registration

August 25 – October 27

Housing Reservations

June 1 – October 4



influence



community



knowledge

Learn more and get involved in WSDS 2023 at ww2.amstat.org/wds.

The logo for Stata 18, featuring the word "STATA" in a bold, sans-serif font, followed by the number "18" inside a rounded square border. The background of the entire advertisement is a dark blue overlay on a photograph of a person's hands typing on a laptop keyboard, with the laptop screen displaying a Stata software interface showing a regression table and a graph.

STATA 18

Announcing Stata 18

Experience the power of Stata: fast, accurate, and easy-to-use statistical software. Stata is a complete, integrated software package that meets all your data science needs, including statistics, visualization, data manipulation, reporting, and more.

Now available in Stata 18:

- Bayesian model averaging
- Tables of descriptive statistics
- Group sequential designs
- Multilevel meta-analysis
- Meta-analysis for prevalence
- Wild cluster bootstrap, multiway clustering, ...
- Local projections for IRFs
- Causal mediation analysis
- Heterogeneous DID
- TVCs with interval-censored Cox model
- Lasso for Cox model
- RERI
- IV quantile regression
- All-new graph style

Discover these and all the new features that were added in Stata 18.

[stata.com/amstat18](https://www.stata.com/amstat18)