

October 2020 • Issue #520

# AMSTATNEWS

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



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**JSM 2020**  
VIRTUAL CONFERENCE  
**THE HIGHLIGHTS**

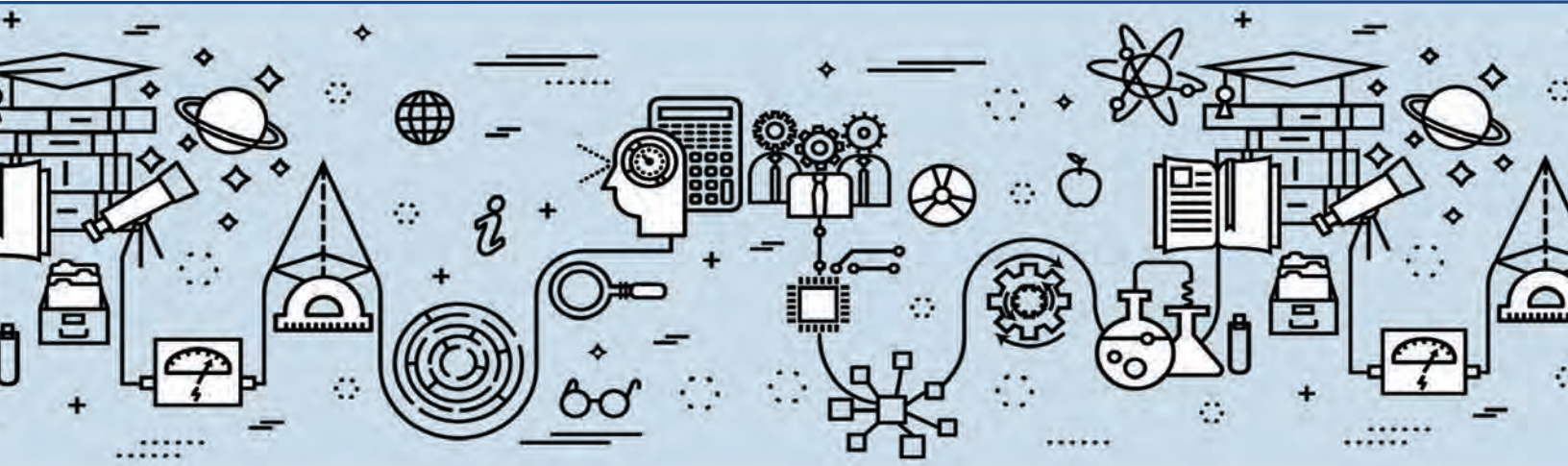
**ALSO:**

ASA Fellows Analysis

To Get a PhD or Not to Get a PhD?



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- The condition and progress of U.S. STEM education

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# AMSTATNEWS

OCTOBER 2020 • ISSUE #520

## Executive Director

Ron Wasserstein: [ron@amstat.org](mailto:ron@amstat.org)

## Associate Executive Director and Director of Operations

Stephen Porzio: [steve@amstat.org](mailto:steve@amstat.org)

## Senior Advisor for Statistics Communication and Media Innovation

Regina Nuzzo: [regina@amstat.org](mailto:regina@amstat.org)

## Director of Science Policy

Steve Pierson: [pierson@amstat.org](mailto:pierson@amstat.org)

## Director of Strategic Initiatives and Outreach

Donna LaLonde: [donnal@amstat.org](mailto:donnal@amstat.org)

## Director of Education

Rebecca Nichols: [rebecca@amstat.org](mailto:rebecca@amstat.org)

## Managing Editor

Megan Murphy: [megan@amstat.org](mailto:megan@amstat.org)

## Editor and Content Strategist

Val Nirala: [val@amstat.org](mailto:val@amstat.org)

## Production Coordinators/Graphic Designers

Olivia Brown: [olivia@amstat.org](mailto:olivia@amstat.org)

Megan Ruyle: [meg@amstat.org](mailto:meg@amstat.org)

## Advertising Manager

Claudine Donovan: [claudine@amstat.org](mailto:claudine@amstat.org)

## Contributing Staff Members

Naomi Friedman

*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](mailto: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. Annual subscriptions are \$50 per year for nonmembers. *Amstat News* is the member publication of the ASA. For annual membership rates, see [www.amstat.org/join](http://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](mailto:asainfo@amstat.org)

**ADDRESS CHANGES:** [addresschange@amstat.org](mailto:addresschange@amstat.org)

**AMSTAT EDITORIAL:** [amstat@amstat.org](mailto:amstat@amstat.org)

**ADVERTISING:** [advertise@amstat.org](mailto:advertise@amstat.org)

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

Printed in USA © 2020  
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.

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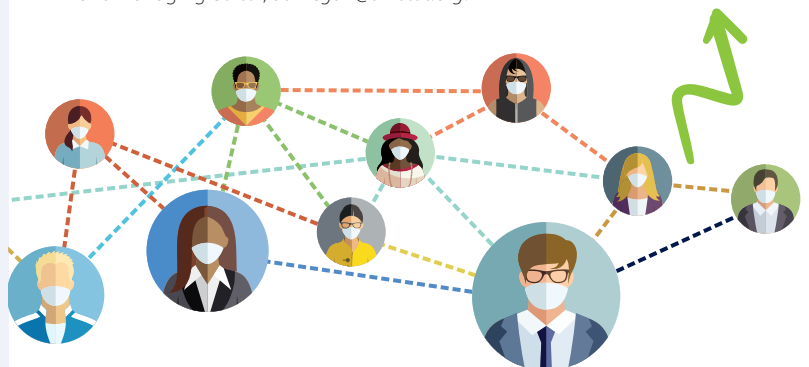
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### 17 MASTER'S NOTEBOOK To Get a PhD or Not to Get a PhD?

This column is written for statisticians with master's degrees and highlights areas of employment that will benefit statisticians at the master's level. Comments and suggestions should be sent to Megan Murphy, *Amstat News* managing editor, at [megan@amstat.org](mailto:megan@amstat.org).

### 18 STATtr@k Staying Motivated and Connected During COVID-19

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](mailto:megan@amstat.org).



# Online Articles

The following articles in this issue can be found online at <http://magazine.amstat.org>.

## STATS4GOOD

**Francesca Dominici of Harvard receives the Karl E. Peace Award** —The American Statistical Association has awarded the 2020 Karl E. Peace Award for Outstanding Statistical Contributions for the Betterment of Society to Francesca Dominici of Harvard University. With a background in statistics and public health, Dominici's work has addressed some of the most important challenges facing our society today, including the public health impact of air pollution, improving the quality of cancer research, and climate change.

Dozens of articles published in ASA journals have been cited in patents. Rick Cleary and Brigitte Muehlmann show how the statistical community contributes to inventions in **"Statisticians Quietly Support Innovation Through Patents"** at <https://magazine.amstat.org>.

The first **Caribbean and Central American Workshop on Statistical Literacy for High School Students** (PARIS21) took place this past December. Several innovative and respected statistics instructors participated in this three-day workshop, including Anna Bargagliotti, Loyola Marymount University; Beth Chance, Cal Poly San Luis Obispo; Christine Franklin, University of Georgia; Kaycie Maddox, Northeast Georgia Regional Educational Service Agency; and Roxy Peck, Cal Poly San Luis Obispo. Visit [magazine.amstat.org](http://magazine.amstat.org) to read more about PARIS21.

**"The Philosophy of Data Science"** is the first of an annual series directed at early-career statisticians and data scientists. It will provide in-depth understanding of a single topic to augment the formal graduate school curriculum. Each episode is free and available at any time. Visit the Pod of Asclepius website at [www.podofasclepius.com/philosophy-of-data-science](http://www.podofasclepius.com/philosophy-of-data-science) for details.

## CORRECTION

David Corliss was incorrectly named author of *Legislative Advocacy and Data Science* in the September issue. Sarah Warner, chair of legislation and policy for End Slavery Cincinnati Anti-Human Trafficking Coalition, is the correct author. We regret the error.

## CLARIFICATION

In the September print issue of *Amstat News*, both Statistics Without Borders articles included a volunteer number of 900 or more. The accurate number is closer to 1,600.

# departments

## 20 meetings

- JSM 2020: Like No Other
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- Highlights from a JSM 2020 Virtual Panel on Professional Development in Statistical Organizations
- 2020 Virtual Diversity Mentoring Program
- Winners of 2020 COPSS Awards
- Rina Foygel Barber Wins 2020 COPSS Presidents' Award
- 2020 SPAIG Award Honors Research Collaboration
- NISS Writing Workshop an Annual Success for Early Researchers
- SDSS 2021 - Beyond Big Data: Shaping the Future

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# Justice, Equity, Diversity, and Inclusion

After the death of George Floyd, many professional organizations confronted the need to issue statements regarding their commitment to justice, equity, diversity, and inclusion (JEDI). I am proud to say that this includes the ASA, whose statement can be found at [www.amstat.org/asa/files/pdfs/JEDI-Statement.pdf](http://www.amstat.org/asa/files/pdfs/JEDI-Statement.pdf), and I am privileged to announce the formation of an ASA Anti-Racism Task Force. To help us make progress on the goals outlined in our statement, the task force has been charged with the following:

- Review the association's infrastructure, policies, and procedures to determine how structural and systemic barriers conflict with the association's position on justice, equity, diversity, and inclusion. The task force will develop infrastructure and policy recommendations to the board of directors and other senior leaders to help drive positive cultural change within the association that aligns to the association's stated position on justice, equity, diversity, and inclusion.
- Assess the communications and activities of groups within the association that provide services, benefits, or support to key stakeholders, other professional associations, and the public for the presence and impact of racial and ethnic bias. Examples of communications and activities include, but are not limited to, educational guidance and support, professional development programs, development activities, and public relations campaigns. The task force will develop recommendations to the board of directors and other senior leaders to ensure communications and activities of the association's groups align with the association's position on justice, equity, diversity, and inclusion.
- Propose mechanisms to the board through which the association will inform the public on the responsible use of statistics and data

science in systems that can unintentionally contribute to widespread racial and ethnic bias in society, such as facial recognition algorithms, predictive policing, and machine learning optimization algorithms, etc. Also propose how statistics should be used to support anti-racist systems.



Wendy Martinez

The co-chairs of the task force are Adrian Coles and David A. Marker. Also serving on the committee are Emma Benn, Emily Lynn Butler, Necip Doganaksoy, Samuel Echevarria-Cruz, Portia Exum, Emily Hadley, Susan Halabi, Ofer Harel, Diane Herz, Monica C. Jackson, Elizabeth Mannhardt, Wendy Martinez, Miles Q. Ott, Roy Dooti, Douglas A. Samuelson, Abdus S. Wahed, Erin A. Wiley, David C. Wilson, Jenny Hang Yang, and Steve Ziliak.



Adrian Coles



David A. Marker

The task force will hold their initial meeting this month, and I want our members and colleagues to know more about their important work so we can all contribute. To begin our community's conversation, this column will be devoted to an exchange with Adrian and David, ending with a conclusion provided by a surprise guest—Rob Santos, our 2021 ASA president.

**Thank you, Adrian and David, for agreeing to hold this conversation, but more importantly for leading the charge. Please start us off by introducing yourselves.**

**David:** I am a senior statistician and associate director at Westat, where I've worked for almost my entire career. I have served on the ASA Board of Directors and currently serve as vice chair of the Professional Issues and Visibility Council, which includes our committees focusing outward from the ASA to society. I have been a longtime activist on racial justice, but despite lots of progress, we now see a more determined effort to undermine our future that must be addressed. I have served on our local Human Rights Commission, facilitated anti-Apartheid efforts, and been an expert statistical witness on voter ID cases in federal and state court. I look forward to being a strong advocate and ally for our anti-racist actions.

**Adrian:** I am a senior research scientist at Eli Lilly and Company. I am also the chair of the Committee on Minorities in Statistics, the associate director for industrial relations for the Math Alliance, and heavily involved in diversity and inclusion efforts within my company. As these roles suggest, I am passionate about creating a just, equitable, and inclusive culture within our discipline. As such, I'm excited to take part in this initiative.

**What qualities and abilities do the members of the task force have that will make this a good team?**

**David:** We have a task force with membership from a great deal of different backgrounds. This will provide a rich basis for learning from one another and growing to meet our needs. If we identify additional specialty skills that are needed, I'm sure we'll be able to call upon experts from the ASA to assist us.

**Adrian:** I am personally acquainted with several members of the task force. I know this group of professionals to be committed and dedicated to driving positive cultural change. In addition, I know members of this team to be incredibly bright, respectful, courageous, and not afraid to challenge the status quo. All of these traits are critical for our success.

**The task force has a formal charge. In your own words, what do you hope we accomplish?**

**David:** I hope that we identify ways in which the ASA and the statistical profession can become even more welcoming to all races. Many of us believe that statistical methods allow our society to better understand itself and make decisions that will better reflect our goals and aspirations. However, we often find people using statistical methods in ways that undermine such aspirations, and indeed can be used in harmful ways (think predictive policing and facial recognition software). I hope that this task force can identify positive ways to use statistics and reverse these mis-applications so it can be a force for good.

**Adrian:** As much as I wish we could eradicate racism within our discipline and the broader scientific community, I recognize that that is too lofty of a goal. However, I'm confident that we will identify several opportunities to help minimize the negative impact of overt and covert racial and ethnic bias within our discipline. I'm also hopeful that our team will provide valuable ideas to our board and other senior leaders to help the ASA and, more broadly, our discipline capitalize on those identified opportunities.

**If anything is possible and achievable for our association and profession, what will it look like in 10 years? What do we have to do to accomplish your vision?**

**David:** We need to become more proactive. The board has indeed spoken up more frequently, as has been needed in these times. But through activities like StatFest, recruiting and supporting HBCUs [historically Black colleges and universities], and other activities, we have to expand the membership and activities of the ASA to bring us closer to our goals.

**Adrian:** My 10-year vision is to be a professional organization that not only leads the way in helping statisticians and data scientists find and use our full voice in the various sectors within which we exist, that not only provides meeting places for like-minded professionals to gather and advance the technical aspects of our profession, but one that also sets the example of equity and inclusiveness within the broader scientific community. There are many things that must be done to achieve this vision. Two critical items are developing a system of accountability within our

organization to help guide our progress and allocating more resources to initiatives that aim to make us more diverse and inclusive. Society is demanding it; it's up to us to deliver!

**We know the work of the task force will be challenging. Are you optimistic we will be successful?**

**David:** Yes, I am optimistic. To quote Barack Obama when he was running for president, "In the face of impossible odds, people who love their country can change it."

**Adrian:** You are right. We have a tough road ahead. This journey will teach us a lot about ourselves, including some things we are proud of and some things that may be difficult to accept. But our courage to lean into this difficult moment and to embrace the work of this task force will create a profession that we are all proud to pass down to the next generation of statistical thought leaders. It will take each of us to do our part, but I'm optimistic that we will progress together.

**Again, thank you both for your leadership during these challenging times. I am also hopeful, and I'm proud to be part of the efforts to shape a better future for all. I know our 2021 president, Rob Santos, is also committed to JEDI, so I asked him to conclude this column with a preview of the year ahead.**

**Rob Santos:** As the incoming ASA president, I would like to thank current President Wendy for the opportunity to comment on the task force and this dialogue. The association—and indeed, society—is at an inflection point in dealing with systemic, institutional racism. ASA leadership has chosen to face the "demons of racism" that can permeate much of what we do as statisticians. This includes, but is not limited to, networking; mentoring; hiring; staffing and working on project teams or ASA committees, chapters, or sections; analyzing data and interpreting results; our association policies; governance and funding decisions, etc. An equity/diversity lens on what essentially amounts to our *professional culture and practice* will generate the fresh look needed to embrace practices that are already inclusive, identify areas that could benefit from improvement and—if necessary—end practices or policies that are tacitly and/or unwittingly biased.

**Be a JEDI!**

The new JEDI Outreach Group will bring together individuals and groups with an active interest in working together to enrich and support justice, equity, diversity, and inclusion in statistics and data science.

Join us! Use the form at [forms.gle/VpCz7AHerFNAomGr6](https://forms.gle/VpCz7AHerFNAomGr6) to share your ideas for activities and initiatives.

Targeting areas for improvement and developing mitigation strategies will be challenging. It is for this reason that we intentionally staffed the Anti-Racism Task Force (TF) with members reflecting diversity in terms of gender, race-ethnicity, professional sector, and geography. We also developed a comprehensive TF charge that examines internal association policy and practices, external practices including outreach, and, of course, statistical practice, itself.

Taken as a whole, the TF will be examining who we are as an association, how we operate, and what we should aspire to be. Their product will be a report of findings and a roadmap that can be used to set the ASA on a course toward a more diverse, equitable, and inclusive association. Following that path will improve our inclusive culture. It will also position us to better serve society.

The overarching theme of my presidential initiatives will be building community. If there was ever a time when our membership needed to come together in support of each other, it is now. I am currently working with the ASA to develop specific actions to improve membership support, value, and retention; to promote pipelines to statistics careers; and to demonstrate more visibly our manifold contributions to society. All this is meant to be both consistent with and supportive of the work of the Anti-Racism Task Force.



# Highlights of the July 28–30, 2020, ASA Board of Directors Meeting

ASA President Wendy Martinez gavelled in the “JSM meeting” of the ASA Board. The board met via video-conference over a three-day period in the run-up to virtual JSM 2020. The highlights of the board meeting follow.

## 2020 Board of Directors

**Wendy Martinez**, President

**Rob Santos**, President-Elect

**Karen Kafadar**, Past President

**Katherine Monti**, Third-Year Vice President

**Richard De Veaux**, Second-Year Vice President

**Dionne Price**, First-Year Vice President

**Don Jang**, Third-Year Council of Chapters Representative

**Anamaria Kazanis**, Second-Year Council of Chapters Representative

**Ji-Hyun Lee**, First-Year Council of Chapters Representative

**Katherine Halvorsen**, Third-Year Council of Sections Representative

**Mark Glickman**, Second-Year Council of Sections Representative

**Rebecca Hubbard**, First-Year Council of Sections Representative

**Alexandra Schmidt**, International Representative

**Scott Evans**, Publications Representative

**Ruixiao Lu**, Treasurer

**Ron Wasserstein**, Executive Director and Board Secretary

## Actions

- The board approved the 2021 ASA budget, noting it will likely need to be adjusted as circumstances warrant.
- The board approved in principle a revision to the *Guidelines for Assessment and Instruction in Statistics Education (GAISE) Report*, subject to forthcoming edits.
- The board heard a proposal to create a new journal tentatively titled *Innovations in Statistical Consulting &*

*Collaboration*. Concerned about paper flow and the budget for the journal, the board suggested alternate strategies to develop a proof of concept before committing to a new journal launch.

- The board approved changing the name of the *Journal of Statistics Education* to the *Journal of Statistics and Data Science Education*, effective January 1, 2021.
- The board approved a policy for renaming ASA awards, should the need arise.
- The board accepted the recommendations of its Constitution and Bylaws Review Task Force and put forward the recommended revisions to these ASA governance documents for final board consideration after the required public comment period.
- The board approved the formation of the Justice, Equity, Diversity, and Inclusion (JEDI) Outreach Group.

## Reports and Discussions

- Associate Executive Director and Director of Operations Steve Porzio updated the board on 2020 financials. He noted that the ASA will operate at a loss in 2020. The extent of that loss is not yet clear, Porzio said, but he also noted the ASA’s balance sheet is healthy, with reserves to help us weather this storm.
- ASA Treasurer Ruixiao Lu reported on the ASA’s investments. She reviewed the diversity of investments in the portfolio and noted we are doing reasonably well. She again cautioned about market volatility and said the investments committee works with

our investment manager to keep up to date on developments.

- Sharon Hessney, the moderator of What’s Going On in This Graph (WGOITG), joined the board by video. WGOITG is a free, weekly online feature of the *New York Times* Learning Network (NYTLN) that encourages students in grades 7–12+ to better understand and critically interpret graphs that relate to the world they live in. Hessney provided data and anecdotes showing that the program, now three years old, continues to grow and succeed.
- Rebecca Nichols, ASA director of education, updated the board on the diverse set of programs and initiatives the ASA undertakes to promote statistics education at all levels.
- Martinez updated the board on her three initiatives in 2020. She said the TEDx initiative is on hold because of the pandemic. She provided the board with highlights from the LGBTQ+ Inclusion and K–6 Statistics and Data Science initiatives and indicated she is pleased with the progress made given the difficulties everyone is experiencing this year. ASA President-elect Rob Santos is developing three Building Community initiatives: building community through membership development; building community through advancing diversity, inclusion, and equity; and building community through external outreach. He walked the board through goals and philosophies for each and asked for feedback and involvement.



- Council of Chapters Representative Ji-Hyun Lee updated the board on council activities for JSM 2020, the status of the traveling course, and plans for future council meetings.
- Council of Sections Representative Katherine Halvorsen updated the board on the council schedule for JSM 2020, the upcoming section leadership conference, and resources (including a video) for new section representatives.
- Linda Young and Xuming He, co-chairs of the Statistical Significance and Reproducibility Task Force, presented the report and recommendations of the task force, which was appointed by 2019 ASA President Karen Kafadar. The board sent suggestions back to the task force for further consideration.
- ASA Director of Science Policy Steve Pierson reported on advocacy efforts of the association, focusing on issues surrounding the decennial census, COVID-19 data reporting, and National Center for Education Statistics staffing. He provided the board with a comprehensive history of the citizenship-related issues on the decennial census.
- Amanda Malloy, ASA director of development, briefed the board on the status of 2020 fundraising. She reviewed the plans for ASA's Giving Day in October. Malloy said fundraising is down in 2020 over 2019, but not by much, and not by nearly as much as other non-profits are experiencing.

The board will meet next the week of November 16 via videoconference for its final 2020 meeting. ■

## Technometrics Calls for Editor Applications and Nominations

The American Statistical Association and American Society for Quality invite nominations and applications for the position of editor of *Technometrics*.

*Technometrics* contributes to the development and use of statistical methods in physical, chemical, and engineering sciences, as well as information sciences and technology. These include developments on the interface of statistics and computer science such as data mining, machine learning, and large databases. The journal places a premium on clear communication among statisticians and practitioners of these sciences and an emphasis on the application of statistical concepts and methods to problems that occur in these fields.

The *Technometrics* editor reviews new submissions and makes final decisions about which papers to accept for publication. The editor also appoints the editorial board and works with them to handle the journal's peer-review process. Papers submitted to *Technometrics* are refereed using a rigorous double-blind review system.

The editor prepares short articles consisting of each issue's highlights, which are published in *Amstat News* (both in print and online) and writes an annual editor's report, which is published in the journal.

The *Technometrics* editor is provided with an online manuscript submission and tracking system and given training in the use of the system. The system allows the editor to review papers and assign reviewers easily, as well as to generate reports. Editors also receive funds for office supplies used in the course of the editorship.

The editor receives significant assistance from the editorial coordinator, an independent contractor

engaged by the ASA. The editor also works with the production editor to create each issue and ensure timely production and publication.

The editor works with the *Technometrics* Management Committee, which oversees and guides the operation of the journal. The chair of the management committee represents the journal on the ASA's Committee on Publications.

The new editor will serve from 2023–2025, with the transition beginning in 2022. During that year, the incoming editor will handle all new submissions to the journal.

*Technometrics* editors should be active members of the ASA and ASQ during their terms.

### Nominations

If you know someone who would be a good candidate for the editorship of *Technometrics*, nominate that person by sending his or her name, email address, and a brief description of his or her qualifications to [eric@amstat.org](mailto:eric@amstat.org). The search committee will consider your nomination along with others received.

The deadline for nominations is **November 15, 2020**.

### Applications

Applications for the editorship should be sent electronically to [eric@amstat.org](mailto:eric@amstat.org) and include a CV; the names of three references; and a letter of interest in the position that includes a statement of the candidate's vision for the publication, directions the candidate would pursue, and contributions she or he would make if selected as editor.

The deadline for applications is **December 15, 2020**. ■

# Multi-Stakeholder Alliances: A Must for Equity in Higher Education for the Fourth Industrial Revolution

Linda Espahbodi

Multi-stakeholder alliances are essential to developing and maintaining a diverse talent pool for the Fourth Industrial Revolution (4IR). 4IR, the advent of cyber-physical systems (CPS, [www.nsf.gov/news/special\\_reports/cyber-physical](http://www.nsf.gov/news/special_reports/cyber-physical)), involves new uses of technologies created by the internet and automation during the third revolution. It has created entirely new capabilities for people and machines ([www.weforum.org/centre-for-the-fourth-industrial-revolution](http://www.weforum.org/centre-for-the-fourth-industrial-revolution)) and, as such, has had a profound effect on most professions, including accounting. An example of CPS in accounting is the profession's use of drones to collect and analyze data on inventory to confirm the client's enterprise resource planning (ERP) system records. Information from this CPS application has allowed for better real-time decisions.

Moreover, the process of gathering, analyzing, and communicating data on a large scale using various technologies to improve decision-making has become mainstream, and employers have signaled that this mindset must be developed in students at earlier stages in higher education and integrated into curriculum. Thus, graduates today must be proficient in the fundamentals of statistics to thrive in the 4IR workplace.

On the employer side, the ability to attract and retain top diverse talent in the workplace is important for success in the 4IR. To date, minorities (Hispanics, Blacks, and Asians) have not been able to enter and advance at professional accounting firms in meaningful numbers, even though accounting is a popular major among them. As the demographics of the United States shift to a minority majority by 2045, it is imperative that these individuals have access to a solid foundation in statistics for good career opportunities—a must for equity in higher education in the 4IR.

Since traditional higher education institutions have not solved the issue of universal quality education, new frameworks must be developed to tackle this issue. A multi-stakeholder approach—a collaboration among employers, government, and other stakeholders—to

create and support new types of educational organizations will allow for universality in quality education and, thus, excellent career opportunities for minority groups in the accounting profession.

Inspiring Accounting Talent for a Sustainable Society ([iat4ss, www.iat4ss.org](http://iat4ss.org)), a nonprofit educational organization, was created to assist minorities enter the profession by providing relevant curriculum at an early stage in higher education. For example, students can enroll in Data Analytics and Statistics in Accounting after completing the principles of accounting courses. Further, data analytics is integrated into the entire curriculum.

Our society depends on certified public accountants (CPAs), as trusted professionals, to ensure reliable information for making financial and investment decisions. The traditional route for becoming a CPA has generally been to earn an undergraduate and/or master's degree in accounting, pass the CPA examination, and gain work experience. To date, the CPA examination has primarily focused on accounting and regulatory topics: financial, managerial, and governmental accounting; auditing; tax; and business environment and regulations. The ability to use office and productivity software such as Excel, electronic workpapers, tax software, and email was all that was required of professional accounting staff in the past. IT professionals were added to the audit, tax, and consulting teams as support to automate routine work and electronically access and analyze client records.

Thus, the traditional CPA model essentially did not require technology heavy or data savvy professionals. Now, with the increase in nature, volume, and velocity of data and rapid changes in technology related to the way data is collected, analyzed, communicated, and used, professional services firms have reassessed their talent acquisition needs and are hiring non-accounting majors. Specifically, they are hiring more graduates who are competent in data analytics by using current and exponentially developing technologies such as artificial intelligence, machine learning, and blockchain.

This shift in hiring has caused the certifying bodies in the accounting profession to initiate the CPA Evolution project ([www.evolutionofcpa.org](http://www.evolutionofcpa.org)). Specifically, the National Association of State Boards of Accountancy (NASBA) and American Institute of Certified Public Accountants (AICPA) are working together to transform the CPA model. The new model will include technology as a core body of knowledge that candidates must be proficient in, similar to auditing, financial accounting, and tax.

However, technology skills of the workforce alone are insufficient for professional services firms (and other organizations) to achieve success in the new environment. They need a workforce that (1) is learned in quantitative reasoning with data, commonly known as data analytics; (2) can apply knowledge in a collaborative, diverse, and multidisciplinary environment; and (3) adheres to ethical standards. To solve problems in our data-driven world, data analytics is now first and foremost on the minds of employers. This ability—in conjunction with a robust and dynamic skillset in technologies to analyze issues, arrive at possible solutions, and communicate to a diverse group of stakeholders—is essential for individuals to thrive in the workplace in the 4IR. Since artificial intelligence provides us with content on an immediate basis, graduates will be hired not for content knowledge, but for how they can apply knowledge resourcefully and work collaboratively within diverse teams to solve real problems in the world.

There is an immediate need for a multi-stakeholder collaboration to develop and deliver an application-based multidisciplinary curriculum to a diverse and competent talent pool. This application-based, multidisciplinary approach of learning is being used at a few colleges and universities, but it needs to become pervasive in higher education and available to underserved students.

Harvard University already has made quantitative reasoning a part of general education requirement

for their Arts and Sciences students ([www.harvardmagazine.com/2019/04/harvard-course-requirements-quantitative-reasoning](http://www.harvardmagazine.com/2019/04/harvard-course-requirements-quantitative-reasoning)). An example of such a course is Raj Chetty's Using Big Data to Solve Economic and Social Problems (<https://opportunityinsights.org/course>).

However, the challenge at many colleges and universities is that professors who are “old school” are reluctant to change to the new pedagogy of learning. In addition, the demographics of some colleges and universities in the United States do not provide students with the opportunity to collaborate with a diverse group of individuals, so students must find alternate ways of gaining learning experiences that will make them attractive to employers during 4IR.

Preparing a competent workforce for 4IR would also require developing a student mindset with a strong conviction to adhere to ethical standards. Technology has unfortunately been used for wrong reasons. Currently, the major tech companies are dealing with an ethical issue regarding the operations of their respective businesses. Congress and other global legal and regulatory bodies have questioned how these companies collect and use customer and sales data. Ethics is already an important consideration in the CPA profession because of the high level of public trust necessary in financial reporting. As such, ethical standards will continue to evolve to address 4IR issues in this field.

The students and doers of statistics have much to offer professional services firms in the accounting profession, and now there is a path for these individuals to become CPAs with the CPA Evolution project via iat4ss. On the other side, these firms offer individuals excellent career choices with opportunities to grow during a lifetime. The complementing of a statistical mindset with lifelong learning in the CPA profession is a match made for 4IR.

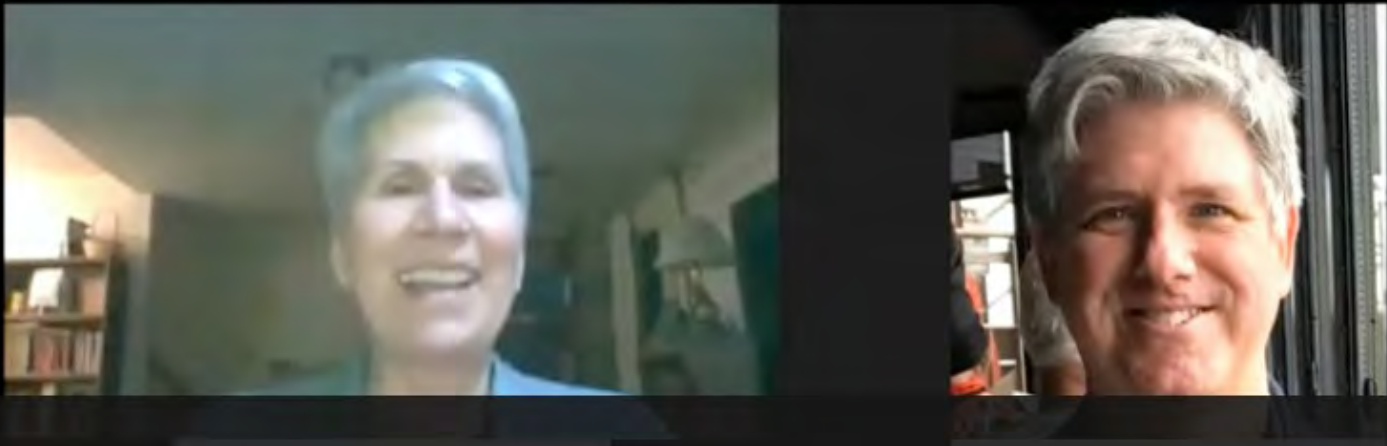
To share your thoughts, or for more information about iat4ss and its program, contact Linda Espahbodi at [lespabbodi1@gmail.com](mailto:lespabbodi1@gmail.com). ■

#### **MORE ONLINE**

For more information about Inspiring Accounting Talent for a Sustainable Society (iat4ss), visit [www.iat4ss.org](http://www.iat4ss.org).

# ASA DataFest 2020: A Virtual Experience

Mine Çetinkaya-Rundel, Robert Gould, and Donna LaLonde



Wendy Martinez (left) and Robert Gould during virtual DataFest

ASA DataFest ([www.amstat.org/education/datafest](http://www.amstat.org/education/datafest)) is a data analysis competition in which teams of up to five students analyze a real and complex data set over the course of one weekend. But spring 2020 was not typical. As many colleges and universities transitioned to a remote format, the ASA DataFest steering committee considered alternatives for the competition. The goal was to adapt DataFest to the new remote environment while maintaining the parts of the event that make it an inviting and valuable experience for students with a wide range of data analysis experience.

The 2020 DataFest was held as a virtual data challenge in which students worked in teams to explore an impact of the COVID-19 global pandemic. Given the variety of potential topics, part of what made this year's challenge unique was it involved participants finding a data set for their analysis. In a typical ASA DataFest, a surprise data set is revealed to participants at a kick-off event on Friday afternoon and students work throughout the weekend to analyze the data and derive insights.

DataFest events were held in April through June, a time when data and modeling about the direct health outcomes of the pandemic were rapidly changing and unreliable. Building models and drawing reliable conclusions about infection, mortality, or

recovery rates would require participants to understand the nuances and limitations of the COVID-19 health data at a level that would likely not be feasible in the short span of the DataFest competition. Therefore, participants were advised to “tell us about something affected by the COVID-19 pandemic other than its direct health outcomes” to discourage them from presenting conclusions that could be potentially misleading or harmful.

Suggested analysis questions included the following:

- How has the pandemic affected the airline industry, and what are some potential downstream effects of this other than economic strain on the industry?
- As a student, how would you quantify the effect of the pandemic on your education?
- With shelter-in-place / lockdown orders, many workers have started working from home, which requires internet access. How prepared was the nation / your local area for this shift?
- How has the spread of the pandemic affected people's opinion of government tracking and privacy?

- What is the effect of the social distancing / shelter-in-place / lockdown recommendations and policies on pollution?
- How can we quantify the potential effects on nutrition and general health of the public, outside of those affected by the virus?
- How are refugees affected by COVID-19?

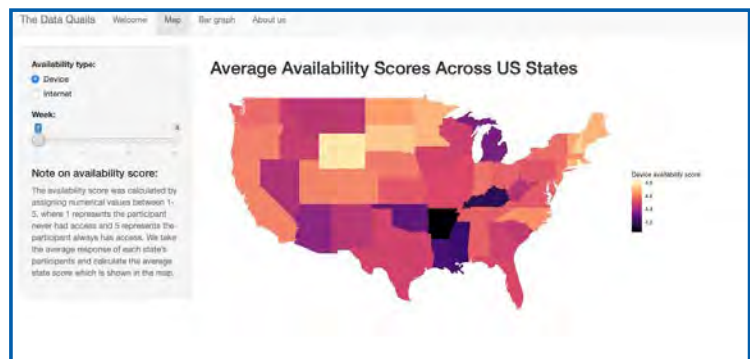
By suggesting these potential analysis questions to students, we were worried we might be hampering their creativity. This was not the case! Students who participated in the event came up with a wide variety of questions on their own. Educators considering classroom projects using COVID-19 data may find the analysis foci from the winning teams useful as a starting point. Here is a sample:

- Societal Impacts of the COVID-19 Pandemic on Education in the United States: Analysis of data from surveys conducted by the US Census Bureau's Household Pulse Survey, examining the availability of devices and internet in households with children in public or private schools in the US over a period of four weeks, April 23 – May 26, 2020 (The Data Quails - University of Edinburgh)
- Relationship Between Dengue Fever Outbreak and Lockdown: Investigation of whether the dengue fever outbreak in Singapore, which coincided with Circuit Breaker (Singapore's COVID-19 lockdown measures), could be attributed to the Circuit Breaker or, alternatively, if the Circuit Breaker had worsened the dengue fever outbreak (Team lemonchocolatecheesecake - University of Edinburgh)
- Dreams in the Time of COVID-19: Exploration of Google search trends as well as sentiment analysis of tweets related to people having vivid dreams during COVID-19 outbreak (Apoorv Jha - Duke University)
- How Research Priorities Shift as COVID-19 Progresses: Exploration of the data set provided as part of Kaggle's COVID-19 Open Research Dataset Challenge (CORD-19) suggesting that research focus shifted from finding a cure to preventative measures for containing COVID-19 (Team N & N - Duke University)

## Student Presentations and Data Sets

- **UCLA**, <http://datafest.stat.ucla.edu/2020-results/awards-announcement>
- **Duke University**, [www2.stat.duke.edu/datafest-covid19/winners.html](http://www2.stat.duke.edu/datafest-covid19/winners.html)
- **University of Edinburgh**, <https://datafest-edi.github.io/web>
- **University of Toronto**, <https://datafestuoft.github.io/winners.html>

- Purchasing Behavior via Amazon and Google Trends: Analysis of purchasing behavior data based on Amazon prices and Google Trends (Team Maskman - UCLA)
- Driving During Quarantine: Investigation of traffic data to evaluate the effectiveness of the call for social distancing in Toronto measured by the decrease in the amount of people driving in residential areas of the city (Team Shirley Eva - University of Toronto)



An app created by one of the teams from the University of Edinburgh

ASA President Wendy Martinez, who virtually welcomed the students participating in the UCLA event, summed up the ASA DataFest experience with this comment: "It is amazing and inspiring what students working together and supported by faculty and volunteer experts are able to accomplish. It makes me optimistic for the future of our profession." ■



# ASA Fellows Analysis

Lucy D'Agostino McGowan and Katherine Monti

The 2020 ASA Fellow awards were presented this year virtually for the first time. Although the festivities were curtailed, the honor to the recipients is as distinguished as ever.

There were 57 new fellows selected from 124 nominations in 2020. Per the ASA bylaws, the maximum number of fellowships awarded each year is one-third of one percent of the current membership.

This article is an update to previous articles published in *Amstat News* (most recently in 2015, [bit.ly/2Evfhas](http://bit.ly/2Evfhas)) detailing the breakdown of ASA Fellow awards and nominations by employment sector and gender.

## Employment Sector

As of February 2020, the percentage of ASA members in each employment sector is approximately 48 percent in academia, 42 percent in business/industry/other (including unknown), and 10 percent in government. These figures reflect a slight change during the last four years, with the largest shifts being increases in the percentage of academic members (up 42–43 percent earlier) and decreases in the percentage of business/industry/other members (down from 46–47 percent). The number of ASA Fellow awards given by employment sector for the most recent 17 years is presented in Table 1 and Figure 1.

**Table 1: Number and Percentage of ASA Fellow Awards in Each Employment Sector by Year**

Year	Employment Sector			Total
	Academia	Business/ Industry	Government	
2004	36 (64%)	11 (20%)	09 (16%)	56
2005	38 (68%)	08 (14%)	10 (18%)	56
2006	50 (83%)	05 (08%)	05 (08%)	60
2007	37 (63%)	11 (19%)	11 (19%)	59
2008	32 (60%)	13 (25%)	08 (15%)	53
2009	36 (63%)	15 (26%)	06 (11%)	57
2010	43 (81%)	05 (09%)	05 (09%)	53
2011	45 (78%)	08 (14%)	05 (09%)	58
2012	37 (77%)	07 (15%)	04 (08%)	48
2013	41 (69%)	11 (19%)	07 (12%)	59
2014	44 (70%)	15 (24%)	04 (06%)	63
2015	50 (81%)	10 (16%)	02 (03%)	62
2016	47 (72%)	10 (15%)	08 (12%)	65
2017	44 (71%)	09 (15%)	09 (15%)	62
2018	50 (82%)	07 (11%)	04 (07%)	61
2019	48 (81%)	05 (09%)	06 (10%)	59
2020	42 (74%)	09 (16%)	06 (11%)	57

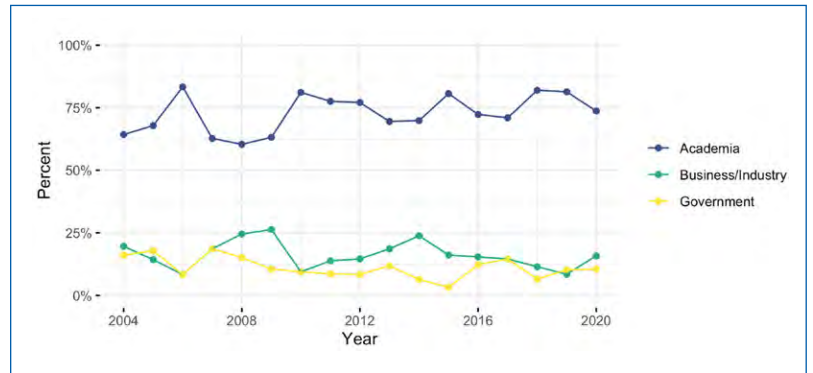
**Table 2: Number and Percentage of ASA Fellow Nominees in Each Employment Sector by Year**

Year	Employment Sector			Total
	Academia	Business/Industry	Government	
2004	044 (59%)	16 (21%)	15 (20%)	75
2005	051 (57%)	22 (25%)	16 (18%)	89
2006	081 (73%)	19 (17%)	11 (10%)	111
2007	079 (66%)	22 (18%)	19 (16%)	120
2008	060 (65%)	18 (19%)	15 (16%)	93
2009	059 (62%)	23 (24%)	13 (14%)	95
2010	071 (72%)	13 (13%)	14 (14%)	98
2011	076 (72%)	18 (17%)	11 (10%)	105
2012	062 (76%)	14 (17%)	06 (07%)	82
2013	071 (72%)	15 (15%)	13 (13%)	99
2014	086 (73%)	24 (20%)	08 (07%)	118
2015	078 (76%)	17 (17%)	08 (08%)	103
2016	074 (71%)	16 (15%)	14 (13%)	104
2017	072 (69%)	19 (18%)	14 (13%)	105
2018	082 (76%)	16 (15%)	10 (09%)	108
2019	104 (74%)	25 (18%)	12 (09%)	141
2020	098 (79%)	17 (14%)	09 (07%)	124

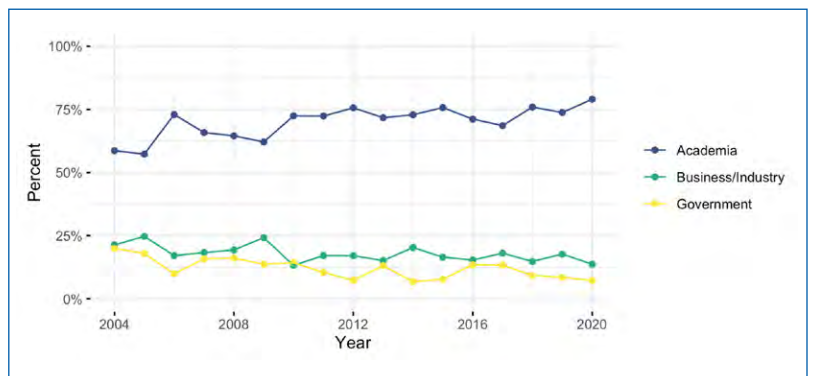
The number and percentage of fellow nominations in each employment sector are shown in Table 2 and Figure 2. Those in academia have been nominated at a consistently high rate (at least 60 percent of nominations compared to 42–48 percent of membership), and those in business/industry have been nominated at a consistently low rate (no more than 26 percent of nominations compared to 42–47 percent of membership). Government employees have constituted about 10–11 percent of the membership and about 7–20 percent of the nominations in the last 17 years.

Figure 3 displays the rate of success for nominations in each employment sector. Averaged across the past 17 years, nominations submitted from academia fared slightly better than business/industry and government; however, both business/industry and government had high success rates (53 percent and 67 percent, respectively) compared to academia (43 percent) in 2020.

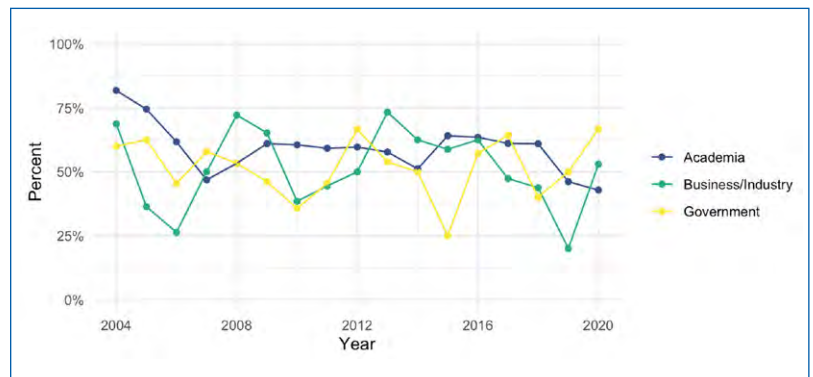
There is a caveat to the interpretation of the employment sector data, namely that it is difficult to ascertain the employment sector of some members. The “business/industry” category includes approximately 10–12 percent in the “other” category. Additionally, while identifying the employment sector of nominees, and thus newly named fellows, is usually relatively straightforward, that identification applies only to the sector in which the nominee is currently employed and not necessarily the sector in which they have spent all, or possibly even most, of their career.



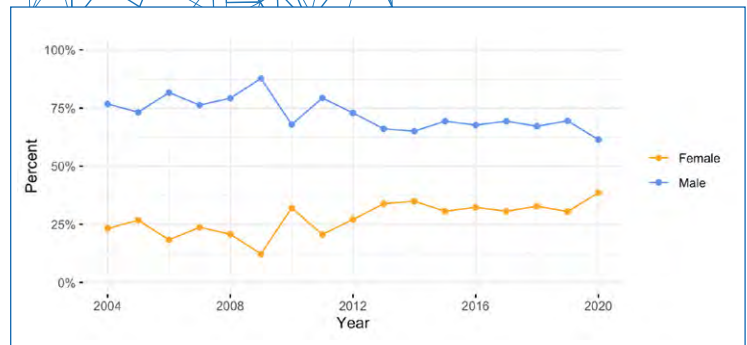
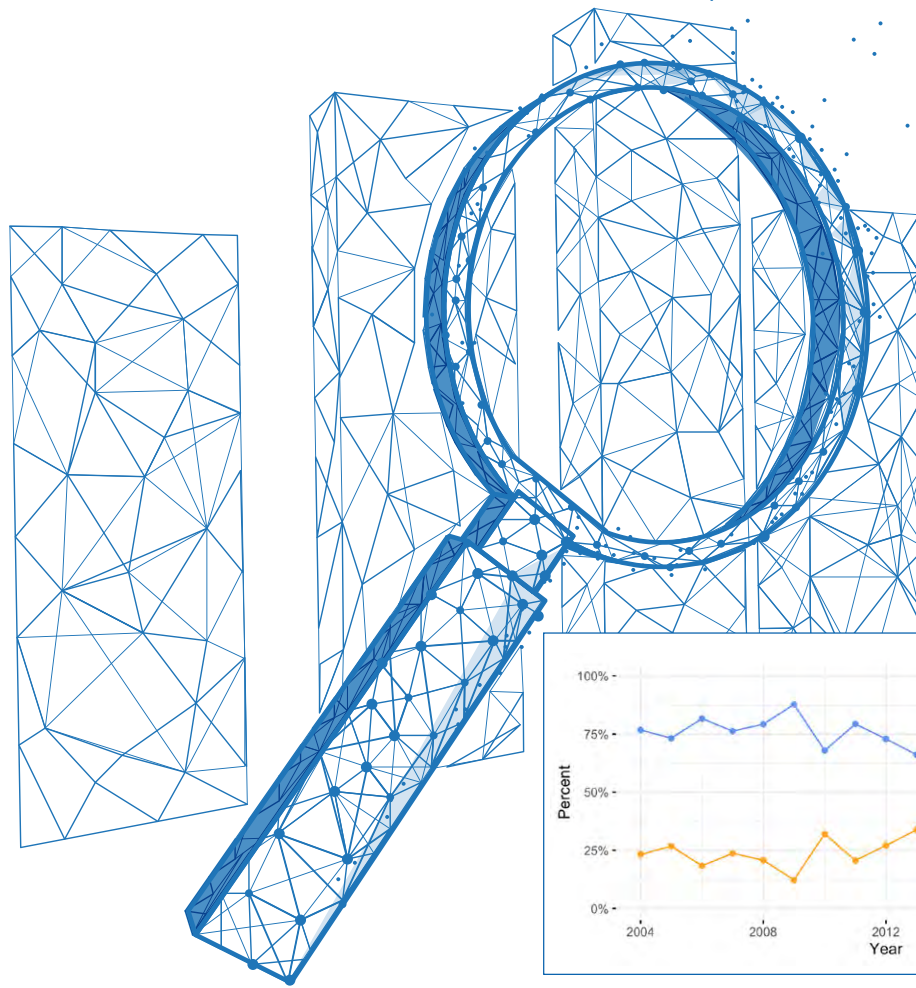
**Figure 1: Percentage of ASA Fellow awards for each employment sector by year**



**Figure 2: Percentage of fellow nominees for each employment sector by year**



**Figure 3: Percentage of fellow nominees for each employment sector by year**



**Figure 4:** Percentage of ASA Fellow awards by self-reported gender and year

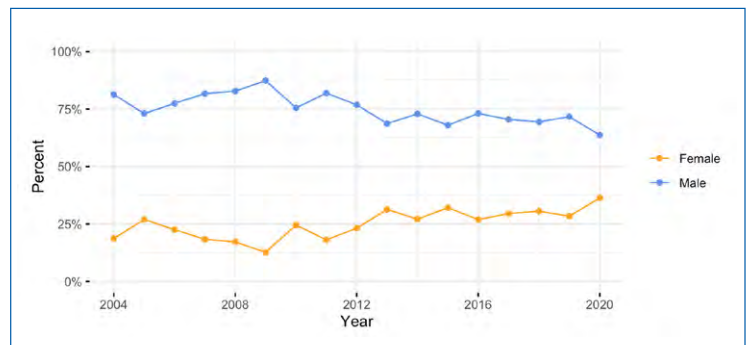
## Gender Analysis

As of February 2020, 64 percent of ASA membership self-reported their gender as male and 33 percent self-reported their gender as female. Three percent declined to answer. This distribution is comparable to self-reported percentages in 2010—67 percent male, 31 percent female, 1 percent declined to answer—but is consistent with the gradual increase in female membership over time.

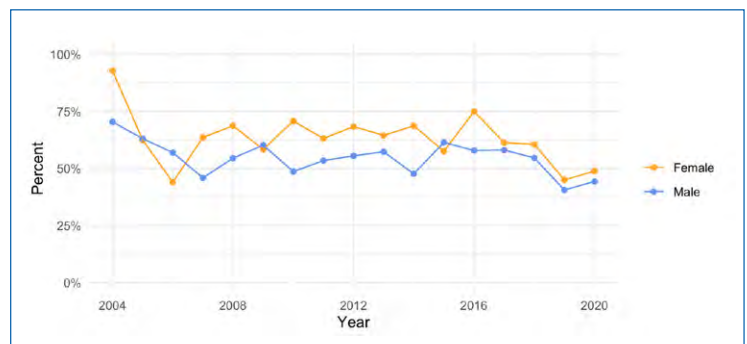
The number and percentage of ASA Fellow awards given by gender for the most recent 17 years is presented in Table 3 and Figure 4. The percent of female fellow awards and the overall percent of female ASA members are increasing over time.

The number and percentage of Fellow nominations by gender for the most recent 17 years is presented in Table 4 and Figure 5.

Figure 6 displays the rate of success for nominations by gender. Averaged across the past 17 years, nominations submitted on behalf of females fared slightly better than males. In 2020, 49 percent of female nominees were successful and 44 percent of male nominees were successful. The success rates for both genders were low in 2019 and 2020 due to the relatively high number of nominations.



**Figure 5:** Percent of ASA Fellow nominees by self-reported gender and year



**Figure 6:** Percentage of successful ASA Fellow nominations for each self-reported gender by year



**Table 3: Number and Percentage of ASA Fellow Awards by Self-Reported Gender and Year**

Year	Self-Reported Gender		
	Female	Male	Total
2004	13 (23%)	43 (77%)	56
2005	15 (27%)	41 (73%)	56
2006	11 (18%)	49 (82%)	60
2007	14 (24%)	45 (76%)	59
2008	11 (21%)	42 (79%)	53
2009	07 (12%)	50 (88%)	57
2010	17 (32%)	36 (68%)	53
2011	12 (21%)	46 (79%)	58
2012	13 (27%)	35 (73%)	48
2013	20 (34%)	39 (66%)	59
2014	22 (35%)	41 (65%)	63
2015	19 (31%)	43 (69%)	62
2016	21 (32%)	44 (68%)	65
2017	19 (31%)	43 (69%)	62
2018	20 (33%)	41 (67%)	61
2019	18 (31%)	41 (69%)	59
2020	22 (39%)	35 (61%)	57

**Table 4: Number and Percentage of ASA Fellow Nominees by Self-Reported Gender and Year**

Year	Self-Reported Gender		
	Female	Male	Total
2004	14 (19%)	61 (81%)	75
2005	24 (27%)	65 (73%)	89
2006	25 (23%)	86 (77%)	111
2007	22 (18%)	98 (82%)	120
2008	16 (17%)	77 (83%)	93
2009	12 (13%)	83 (87%)	95
2010	24 (24%)	74 (76%)	98
2011	19 (18%)	86 (82%)	105
2012	19 (23%)	63 (77%)	82
2013	31 (31%)	68 (69%)	99
2014	32 (27%)	86 (73%)	118
2015	33 (32%)	70 (68%)	103
2016	28 (27%)	76 (73%)	104
2017	31 (30%)	74 (70%)	105
2018	33 (31%)	75 (69%)	108
2019	40 (28%)	101 (72%)	141
2020	45 (36%)	79 (64%)	124

## Conclusions

From the above analysis, we can draw a few conclusions regarding the fellow awards over the last 17 years:

1. Members in academia have consistently received the most fellow awards and the highest percentage of awards (Table 1 and Figure 1). This trend reflects the fact that there are far more nominations from the academic sector (Figure 2), with nomination rates for academics being high relative to membership rates.
2. Members from business and industry have consistently received fairly low numbers and percentage of awards (Table 1 and Figure 1). This trend reflects the fact that there are fewer nominations from this sector (Figure 2), with nomination rates for business/industry being low relative to membership.
3. Members in all employment sectors are selected as fellows in approximately the same proportions as their nomination rates (Figure 3).
4. The percentages of women who are nominated and who are selected as ASA Fellows have both increased over time (Figures 4 and 5). These trends reflect the changing demographics of the ASA, which has had an increase in ASA members who self-report as women.
5. Once nominated, women often receive awards at a slightly higher rate than men (Figure 6). This slightly higher success rate may suggest a slight preference toward women nominations; however, perhaps women are waiting until they have accomplished somewhat more professionally before the nomination is submitted, making them more likely to be selected.



# Collaboration Videos Help Train Next Generation of Applied Statisticians

Teaching applied statisticians to be effective statistical collaborators, particularly in challenging situations, can be difficult. However, in large or online classroom settings—where it can be challenging to conduct mock meetings—students can benefit from videos and corresponding discussion questions.



Above: scenes from the video series on statistical collaboration

With support from the American Statistical Association’s member initiatives program, Julia Sharp, Megan Higgs, and Emily Griffith—with the help of Ann Hess—created a set of 10 short videos covering challenging and salient topics of

communication for collaborative statisticians. The videos are freely available online and cover subjects including communication and planning, aspects of statistical inference, and professional ethics. These topics were identified from collaborating statisticians’ personal experiences, with input from graduate students in statistics working as statistical collaborators.

The 10 videos, along with written scripts and discussion questions, are meant to be used as a basis for meaningful discussion and reflection in courses teaching statistical collaboration. The scenarios portray realistic situations commonly encountered by practicing applied statisticians. Students are provided a unique experience that allows them to reflect on common challenges and possible ways to respond before the situations arise for them in practice. The goal is to improve communication skills and confidence in handling difficult situations.

The videos are not meant to provide straightforward “how-to” instruction, but instead to motivate thoughtful discussion. Toward this goal, the scenarios provide context and points for further dialogue among students, rather than depicting the most effective ways to deal with the challenges presented. For each scenario, there are many reasonable strategies and directions the conversation could have gone depending on the individuals involved, as well as their roles and expectations. Follow-up discussions can be tailored to fit a variety of contexts.

The written script accompanying each video can be used for reference during a discussion or to facilitate student role-playing (in addition to or instead of watching the videos). Two discussion questions or prompts are presented at the end of each video, with additional questions available in the materials accompanying each video. The additional questions add further context to the scenarios portrayed in the videos and scripts and support students and instructors in extending the conversation to topics not explicitly included in the videos. Instructors are encouraged to read through all questions beforehand and choose those that fit their classes best.

The videos and materials can be found at [bit.ly/StatsCollabVideos](https://bit.ly/StatsCollabVideos). ■

## MASTER'S NOTEBOOK

## To Get a PhD or Not to Get a PhD?

*In graduate school or after, many of us become statistical Hamlets, asking, “to get a PhD or not to get a PhD?” Unable to pull off an acceptable crossover trial, the ASA Committee on Applied Statisticians gives you the experiences of four statisticians who took different paths after their master’s degrees. We’ll post them throughout the year. Starting off the series is Kathryn M. Irvine.*

**K**athi Irvine is a research statistician with the US Geological Survey at the Northern Rocky Mountain Science Center in Bozeman, Montana. She was chair of the Section on Statistics and the Environment in 2018, president of the Montana Chapter of the ASA several times (small group), and is currently publications chair-elect for the Government Statistics Section. Kathi has both an MS and a PhD in statistics.

**Should I get a PhD in statistics?** The question inevitably comes up as one is working through a master’s degree in statistics. The pondering becomes even more intense if you have passed your MS comprehensive exams at a PhD level and the department has invited you to stay on. This was my experience, and I decided to stay.

In retrospect, my decision was easy. I enjoyed graduate school and the department I was in (Oregon State Statistics Department). I had no competing family or other obligations to keep me from staying. Also, I had a BS and MS from other institutions, so I wasn’t in the “trap” of an academic history that listed the same university for all my degrees. Finally, the faculty was great and well-respected in my area of interest at the time—Bayesian and spatial statistics as applied to ecological problems.

**Should I have worked for a doctorate?** In fact, I didn’t need a PhD in statistics to be a research statistician in the federal government (US Geological Survey). I wouldn’t have suffered through real analysis and probability and measure theory—and, believe me, I did suffer. Most of my colleagues with the same position description have a master’s degree in statistics and a PhD in another discipline. If I had known this, would I have made another choice? Maybe.

Yet, being a “card-carrying PhD in statistics” affords me opportunities I don’t think I would have had otherwise. There were insights gained through



Kathryn Irvine

my PhD experience I don’t think I would have gotten elsewhere. I am able to span scientific disciplines and statistical methodology. I could consider competing for other jobs if I wanted to—pharmaceutical companies or Google aren’t high on my list, but it is reassuring to know my PhD wouldn’t hold me up if I wanted a change.

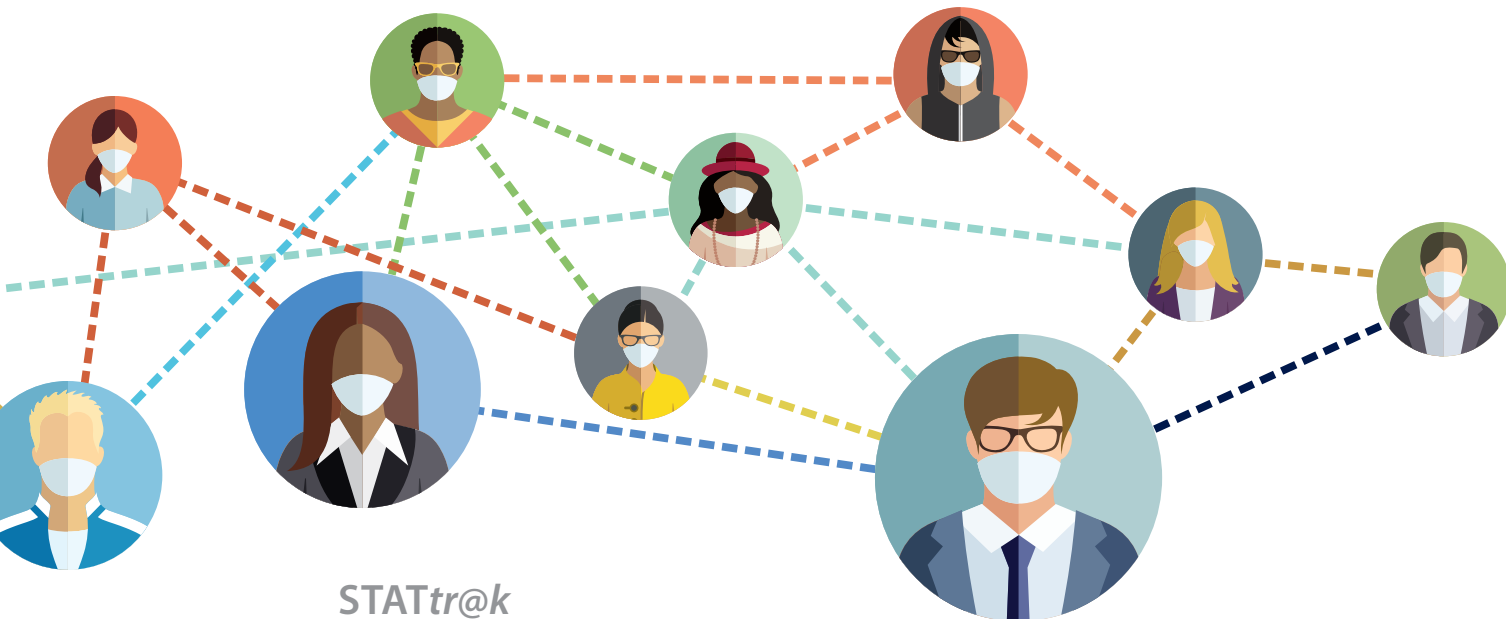
If I had pursued a PhD in ecology or wildlife sciences, my only real options would be nongovernmental agencies, environmental consulting, state and federal land management agencies, or academia. Plus, these folks often do postdoctoral work for years. My cohort of PhDs in statistics, on the other hand, got jobs before the ink was dry on our diplomas, and we now work at banks, corporations, consulting firms—where real money can be earned.

But could I have gotten my current job as an ecological statistician with just an MS in statistics? Possibly. Would I have been able to advance to higher pay grades under the research grade evaluation process without a PhD? I doubt it.

Another upside for me is I have a huge amount of autonomy in my current position, still within the scope of my agency’s mission, of course. I am not so sure I would have that without a PhD. Even in my agency, a PhD holds cachet—for better or worse. Academic pedigree can be helpful in some situations.

So, was earning a PhD worth it? For me, absolutely! ■

Be sure to check in next month to read about Mark Otto and the path he took after he earned his master’s in statistics.



STATtr@k

# Staying Motivated and Connected During COVID-19

Meg Ruyle, ASA Graphic Designer/Production Coordinator

It is the fall of 2020 and many school and career goals have changed drastically. The COVID-19 pandemic has led to canceled classes, lost or virtual internships, and a tough job market. Students are having to adjust their 2019 goals as best they can.

Change brings opportunity, even if it's not always easy to adjust, said Elizabeth Mannshardt, associate director of the US Environmental Protection Agency Information Access and Analytic Services Division. "Going forward, some things will need to be restructured; different perspectives will be valuable and thus sought out," she said. "There is such an array of options for statisticians—exploring and remaining open to opportunities and exploring along your own path is an exciting part of the journey."

The students who steer successfully through a setback can see opportunity in the midst of turmoil. "They are thinking in a versatile way about what the next year is going to look like and what the next three years are going to look like," said Mark Daniel Ward, director of The Data Mine at Purdue University.

While 2020 looks different from what most people envisioned, it's important to keep moving forward. "We can try to adapt as best we can," said Elizabeth Stuart, associate dean for education at The Johns Hopkins University.

## Stay Connected

It is important to remember that the COVID-19 pandemic is global and everyone is feeling the

impact. "No one is expecting you to have it all figured out, particularly during this uncertain time," said Mannshardt. "As we work through this together, we will all learn new things about our discipline, our careers, and our friends and colleagues. Look for ways to pursue what is of interest to you and stay connected."

Talk to mentors, friends, and colleagues when seeking out new opportunities, said Margaret Betz, corporate partners senior manager of The Data Mine at Purdue University. Those relationships can lead to alternate paths. "One of our students, when they lost their internship, we were the first people that they emailed and came to our office hours to talk to, and in return, we were able to offer them alternative projects because they had developed those relationships with us," Betz said. "There are always people that can help you if you just reach out."

Existing relationships are helpful, but don't be afraid to look beyond them. "To continue growing professionally, reach out to someone you have always wanted to meet with an introductory email, commenting on a commonality on their work that may interest you," Mannshardt said. "You may make a new connection."

The statistics field, itself, can form connections across fields, especially in a time that seems to pit fields such as economics and epidemiology against each other, said Stuart. "I would love for this to be an opportunity for statisticians to help connect and show

that we're all trying to use data the best we can," she said. "Statistics kind of forms this common language that we can use to help bring fields together."

### Try Something New

It's a good time to learn something new or hone existing skills using real-world data, said Betz and Ward. Take time to learn a new tool or explore a new programming language. "Right now is a good time to be brushing up on some of the skills that you can practice alone. You can read a new book on something or learn a new language," Betz said.

Since so much real-world data about the pandemic is publicly available, someone could take a deeper dive into that information. "There's some value at students taking a look," Ward said. "The worst thing that happens is that they learn ggplot a little better, they learn how to build a Shiny app, they have a thought-provoking discussion with a faculty member. ... There can be some small bits of good that come out of this devastation happening."

If spending time with pandemic data seems too intense, Stuart recommends doing something outside of one's comfort zone that still uses a statistician's knowledge about evidence, rigor, and study design to help inform family members and friends about the current state of the science surrounding COVID-19.

"When schools were first closing, I co-wrote an op-ed that came out in *USA Today* ([bit.ly/32WQG80](https://bit.ly/32WQG80)) on why parents should take that seriously and not plan lots of play dates," Stuart said. "It's been really good to find opportunities to collaborate with people and do work that feels really relevant right now."

### Stay Motivated

Even though life is definitely unsettled and uncertain, try to keep some semblance of a routine. "It's important to keep some form of normalcy," Betz said. "Go to bed at a normal time—whether you want to go to bed at that time or not—get up when your alarm goes off, eat dinner, and go outside a little bit."

This is also a good time to really consider what a career in statistics or data science might look like. "For some students, it's also given them an opportunity to think deeply about what they want to do with their career and where they're going to make an impact," said Ward. "I think we've all experienced this to some extent—we don't want to take for granted how life was before this pandemic set in."

Stuart agreed that it's a good time to really consider what the future might hold. "You may have unexpected free time or an uncertain schedule right now; consider using the time to think deeply about what you want to do in life, what paths it might

## Additional Resources

### Professional Development

[www.amstat.org/ASA/Your-Career/Professional-Development.aspx](http://www.amstat.org/ASA/Your-Career/Professional-Development.aspx)

### Committee on Career Development

[community.amstat.org/ccd/home](http://community.amstat.org/ccd/home)

### Leadership Institute

[magazine.amstat.org/blog/2018/03/01/leaderinstitute](http://magazine.amstat.org/blog/2018/03/01/leaderinstitute)

### Virtual Undergraduate Career Fair

[ww2.amstat.org/virtualcareerservice](http://ww2.amstat.org/virtualcareerservice)

take," she said. "But also be kind to yourself. Go for walks, enjoy time with your household, learn new recipes. Or binge watch TV shows! We are in a strange time, and we have to do what helps each of us get through."

### Stay Open to Possibilities

Betz said it's also a good time for students to try new things and seek out new learning experiences, even if it's a new path. "I came into college wanting to be an actuary and was pretty set on that, and then the more I tried other things, the more I realized I didn't want to be an actuary," Betz said. "I think it's important to set those goals, but also to test the waters as you're going to reach them."

Mannshardt agreed and added that sometimes you can enjoy aspects of one career, even if you go in a different direction. "Starting out, I had a very clear vision of where I would end up—as a university professor—and I am now on a completely different path in government and scientific policy," she said. "I have found ways to do what I loved about the academic role I initially intended to pursue. I am able to maintain academic connections via my adjunct position, and more importantly, I have found ways to teach and work with young professionals through various roles at work and with ASA, while also continuing to do research and learn in my government role."

It's important to keep your options open and look in all directions for what comes next. "Careers are built out of a series of jobs (even within the same position or organization), professional service, key projects, and various types of milestones," Mannshardt said. What is next in yours? ■



# JSM 2020:

## LIKE NO OTHER

David Banks

I don't know about the rest of you, but, psychologically, I'm near the middle of a barycentric coordinate system whose vertices are the following:

- What wonderful people we work with!
- I need a glass of wine.
- Mischief managed.

session celebrating his centenary—that would have been difficult to manage with an in-person meeting. I liked the lower costs, the ability to sleep in my own bed, and the shorter hours.

I was amazed by the quality of the program. We had dual-speaker introductory overview lectures by (in order of appearance) Lizhen Lin (Scalable Bayes and MCMC) and Dave Blei (Scaling and Generalizing Approximate Bayesian Inference); Cynthia Rudin (Interpretable Machine Learning) and Mike Jordan (Data Science and Decisions: Dynamical, Statistical, and Economic Perspectives); Beka Steorts (Entity Resolution with Application to Data in the Wild) and Megan Price (How Multiple Systems Estimation Helps Count Undocumented Victims of Conflict Violence); Giles Hooker (Introduction to Dynamical Systems Part 1) and Sy-Miin Chow (Introduction to Dynamical Systems Part 2); and Chris Bilder and Chris McMahan (both titled Just Group It), who discussed group testing in the context of COVID-19.

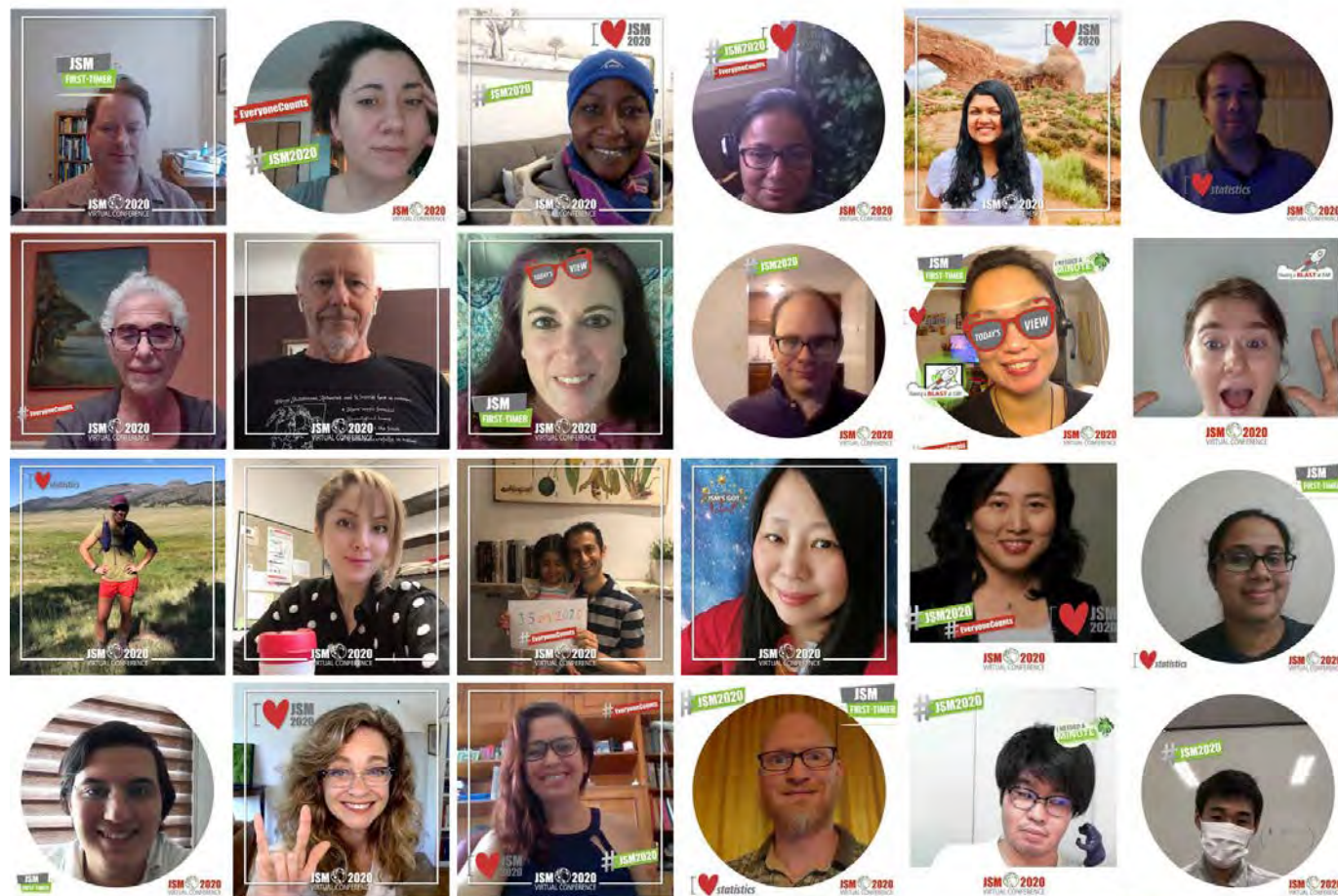
There were three late-breaking sessions. One on COVID-19 (of course), one on a human trafficking report from the National Academies, and one on another National Academies report about data science postsecondary education. The public lecture was an amazing father-daughter team, Nick and Britta Jewell, who discussed the epidemiology and impact of the pandemic. Amy Herring moderated a fascinating discussion of the historical entwinement of statistics and eugenics, the understanding and perception of which has changed enormously over the last 150 years.

The IMS arranged three tremendous Medallion lectures by Susan Holmes, Roger Koenker, and Paul Rosenbaum. Amita Manatunga gave the COPSS Elizabeth Scott Lecture, and Kathryn Roeder gave the COPSS Distinguished Achievement Lecture. And I thought the rest of the scientific program was strong across the board.

My first JSM was in 1981, and I've been to every JSM since 1984. None of them have been anything like the 2020 meeting. But, thanks to a whole lot of people whom I shall soon thank, I think we managed to pull it off. There were glitches and hiccups (e.g., Roger Koenker's Medallion Lecture had a delayed start and the first five minutes of the Cliff Spiegelman Memorial Session had to be re-recorded). On the other hand, people really enjoyed the chat feature and, although I know Google's BERT (bidirectional encoder representations from transformers) could completely overcome the occasional solecisms and profanity in the real-time captioning system, I think people found it so amusing that we should keep it unchanged if we are still virtual next year.

The new capabilities were really nice. Being able to go back to view the talks I missed was great. And Sir David Cox spoke at and C. R. Rao joined in on the

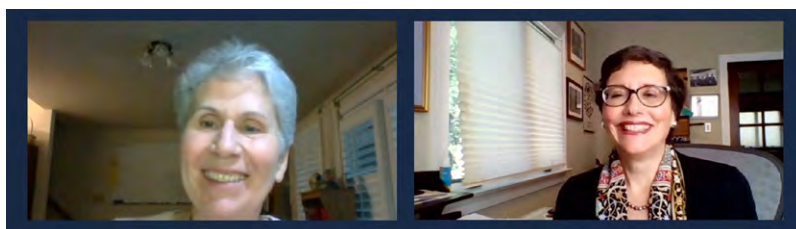
**MORE ONLINE**  
Plenary session webcasts are available at [ww2.amstat.org/meetings/jsm/2020/webcasts/index.cfm](http://ww2.amstat.org/meetings/jsm/2020/webcasts/index.cfm). Screenshots from the conference are on the ASA's Flickr page, [www.flickr.com/photos/187299426@N05](http://www.flickr.com/photos/187299426@N05).



Some of the many virtual faces of JSM 2020

I hope some of my contemporaries will remember Marisa Tomei’s line from *My Cousin Vinny*, when her fiancé has been slow to acknowledge her help: “You know, this could be a sign of things to come. You win all your cases, but with somebody else’s help, right? You win case after case, and then, afterwards, you have to go up to somebody and you have to say, ‘Thank you.’ Oh my God, what a f\*\*\*ing nightmare!”

In my case, it is no nightmare. I owe heartfelt expressions of gratitude! First, I thank all the ASA members who participated in JSM 2020 and made it a success—I am so glad to be part of this professional family. And I am even more grateful to the members of the 2020 Program Committee, who did their jobs twice this year—once at the end of February for an in-person meeting and then again a few weeks later for a virtual event. I also thank Rich Levine (the 2019 program chair); Julie Beckley and Michelle Dunn, the associate program chairs; and Maggie Niu, the associate program chair for posters. Their leadership was essential to our success. But it is no secret who the real heroes of every JSM are—the ASA staff. Kathleen Wert, Naomi Friedman, Christina Link, and Kristin Mohebbi are the ones who delivered the conference for us, triumphing over all the impediments of the pandemic and maintaining a unique combination of utter professionalism and snarky gallows humor. ■



Wendy Martinez (left) and Erica Groshen during the President’s Invited Address



JSM attendees participate in the Opening Mixer.

# Many Honored During Virtual Conference

## Founders

A special feature of the Joint Statistical Meetings is the ASA awards presentation. This year, the award winners were highlighted throughout the program and before the President's Address. Also, Wendy Martinez interviewed the 2020 Founders Award winners, John Bailer and Ronald Fecso.



**JOHN BAILER**  
*Miami University*

For leadership in statistics at the international level; for leadership of the Risk Analysis and Statistics and the Environment sections and of the Cincinnati Chapter; for service on and leadership of the Accreditation

Committee; for service on the ASA Board of Directors, including as chair of the writing group that created the "Preparing Master's Statistics Students for Success"; and for creating, producing, and performing in the Stats and Stories podcast, bringing "the statistics behind the stories and the stories behind the statistics" to public radio and a broad podcast audience.



**RONALD S. FECSO**  
*US Government Accountability Office (retired) and ASQ Solutions LLC*

For service to and leadership of the Washington Statistical Society as its president and its Council of Chapters representative; for contributions to the ASA made through service on the Deming

Lectureship Committee and the SPAIG Committee; for leadership of the Council of Chapters Governing Board over two terms; for many years of outstanding service on the Membership Retention and Recruitment Committee, including three years as chair; and for service on the ASA Board of Directors as a representative of the Council of Sections.

## Fellows

Each year, ASA Fellows are nominated by the membership and selected by the ASA Committee on Fellows. The following ASA Fellows were inducted this year:



**EDOARDO M. AIROLDI**  
*Temple University*



**GARNET L. ANDERSON**  
*Fred Hutchinson Cancer Research Center*



**REBECCA ROBERTS ANDRIDGE**  
*The Ohio State University*



**MINE ÇETINKAYA-RUNDEL**  
*University of Edinburgh and RStudio*



**KWUN CHUEN GARY CHAN**  
*University of Washington*



**CHUNG-CHOU H. CHANG**  
*University of Pittsburgh*



**FANG CHEN**  
*SAS Institute Inc.*



**YONG CHEN**  
*University of Pennsylvania Perelman School of Medicine*



**WILLIAM SCOTT CLARK**  
*Eli Lilly and Company*



**MANISHA DESAI**  
*Stanford University*



**FELICITY BOYD ENDERS**  
*Mayo Clinic*



**ROBERT BRANDON GRAMACY**  
*Virginia Tech*



**ERICA LYNN GROSHEN**  
*Cornell - ILR School*



**MATTHEW JAMES GURKA**  
*University of Florida*



**JAROSLAW HAREZLAK**  
*Indiana University School of Public Health*





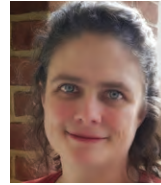
**GUIDO W. IMBENS**  
Stanford Graduate School  
of Business



**ANASTASIA IVANOVA**  
The University of North  
Carolina at Chapel Hill



**YUAN JI**  
The University of Chicago



**LAURA LEE JOHNSON**  
US Food and  
Drug Administration



**PANDURANG M.  
KULKARNI**  
Eli Lilly and Company



**HOLLYLYNNE STOHL LEE**  
North Carolina State  
University



**JEFFREY T. LEEK**  
Johns Hopkins Bloomberg  
School of Public Health



**SERGEI LEONOV**  
CSL Behring



**JIALIANG LI**  
National University  
of Singapore



**LIANG LI**  
MD Anderson  
Cancer Center



**QIZHAI LI**  
Chinese Academy  
of Sciences



**JASON JINZHONG LIAO**  
Merck & Co., Inc.



**CHING-TI LIU**  
Boston University School  
of Public Health



**LISA M. LIX**  
University of Manitoba



**SHENG LUO**  
Duke University



**JINCHAI LV**  
University of  
Southern California



**LOUIS T. MARIANO**  
RAND Corporation



**ROCHELLE WILKIE  
MARTINEZ**  
Office of Management and  
Budget



**KARY MYERS**  
Los Alamos National  
Laboratory



**JENNIFER CLARK NELSON**  
Kaiser Permanente Health  
Research Institute



**ROBERT A. OSTER**  
University of Alabama  
at Birmingham



**MARK C. OTTO**  
US Fish and Wildlife  
Service



**YONGMING QU**  
Eli Lilly and Company



**SARAH J. RATCLIFFE**  
University of Virginia



**SHERRI ROSE**  
Harvard Medical School



**MICHAEL ROSENBLUM**  
Johns Hopkins University  
Bloomberg School of Public  
Health



**KENNETH J. RYAN**  
West Virginia University



**BRISA N. SÁNCHEZ**  
Drexel University



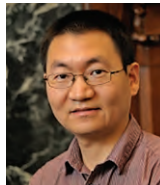
**ALEXANDRA M.  
SCHMIDT**  
McGill University



**MATTHIAS SCHONLAU**  
University of Waterloo



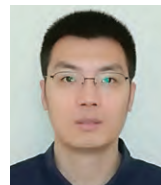
**DAMLA SENTURK**  
University of California,  
Los Angeles



**XIAOFENG SHAO**  
University of Illinois at  
Urbana-Champaign



**PAMELA A. SHAW**  
University of Pennsylvania  
Perelman School of Medicine



**YIYUAN SHE**  
Florida State University



**RAJESHWARI SUNDARAM**  
National Institute of Child  
Health and Human  
Development



**LEHANA THABANE**  
St. Joseph's Healthcare  
Hamilton



**HAONAN WANG**  
Colorado State University



**DANIELA M. WITTEN**  
University of Washington



**VICTOR J. YOHAI**  
Universidad de  
Buenos Aires



**KAI YU**  
National Cancer Institute



**ZHENGYUAN ZHU**  
Iowa State University



**RICHARD CONRAD ZINK**  
TARGET  
PharmaSolutions, Inc.

Many more people were honored for their contributions to various causes that advance the field of statistics. Following are some of the awards and recipients:

### Appreciation for Retiring Editors

- **Daniel R. Jeske**  
University of California, Riverside  
Editor, *The American Statistician*  
2018–2020
- **Jia Li**  
The Pennsylvania State University  
Editor-in-Chief, *Statistical Analysis and Data Mining*  
2018–2020
- **Regina Liu**  
Rutgers University  
Co-Editor, Theory and Methods, *Journal of the American Statistical Association*  
2018–2020
- **Steve Rigdon**  
St. Louis University  
Editor-in-Chief, *Journal of Quantitative Analysis in Sports*  
2018–2020
- **Hongyu Zhao**  
Yale University  
Co-Editor, Theory and Methods, *Journal of the American Statistical Association*  
2018–2020

### Gertrude Cox Scholarship in Statistics

Born in 1900, Gertrude Cox is fondly known as the “First Lady of Statistics” for her pioneering roles in the predominantly male-dominated discipline of statistics. Among her many accolades and accomplishments, she became the first woman—and the first person—to earn a master’s degree in statistics from Iowa State University, where she was appointed assistant professor of statistics in 1939. In 1940, she became professor of statistics at North Carolina State University.

Jointly sponsored by the ASA Committee on Women in Statistics and the Caucus for Women in Statistics, the Cox scholarship has been presented annually since 1989 to encourage women to enter statistically oriented professions. This year’s Gertrude Cox Scholarship went to Mikaela Meyer and Holly Hartman.

- To **Mikaela R. Meyer**, PhD student in statistics and public policy at Carnegie Mellon University, for her outstanding academic success, her dedication and commitment to interdisciplinary statistics-based policy research for the public good, and for her varied and extensive community engagement activities, including organizing voter registration drives, undergraduate mentoring and pedagogy research, and activism in fostering diversity in the STEM fields through Carnegie Mellon’s Women in Statistics Group and through Women in Data Science, a collection of conferences highlighting women across a variety of disciplines.
- To **Holly Hartman**, PhD student in biostatistics at the University of Michigan, for her outstanding research in clinical trials and oncology statistics, as well as her deep commitment and activism in fostering diversity, equity, and inclusion in her department, in the field of statistics, and in society in general.

### Mentoring Award

The ASA Mentoring Award honors those recognized by their colleagues for their sustained efforts to champion the work and develop the careers of statisticians.

The 2020 Mentoring Award honoree is **Barry Graubard** from the National Cancer Institute for his decades of sustained, dedicated, and impactful mentoring to statisticians at all levels, across multiple disciplines, and from diverse backgrounds and for remaining an engaged and continuing adviser to his mentees throughout their chosen careers in academe, government, and industry.

### Monroe G. Sirken Award

Monroe G. Sirken created an endowment to recognize a distinguished researcher for contributions to interdisciplinary survey research that improve the theory and methods of collecting, verifying, processing, presenting, or analyzing survey data.

**Roger Tourangeau** of Westat is this year’s Sirken Award winner for advancing the theory and application of the cognitive aspects of survey methodology and the psychology of survey response; for applying rigorous experimental designs to study mode effects, methods for collecting data on sensitive topics, and other important topics; for pioneering research on the visual aspects of survey design for web and mobile surveys; and for furthering our understanding of the relationship between response rates and non-response bias.

### Award of Outstanding Statistical Application

This award celebrates the authors of a paper that is an outstanding application of statistics in the physical, biological, or medical sciences. The two groups of honorees for Outstanding Statistical Application Award are:

- **Youjin Lee**  
*Johns Hopkins School of Public Health*
- **Mei-Cheng Wang**  
*Johns Hopkins School of Public Health*
- **Katharine Laughon Grantz**  
*Eunice Kennedy Shriver National Institute of Child Health and Human Development*
- **Rajeshwari Sundaram**  
*Eunice Kennedy Shriver National Institute of Child Health and Human Development*

For their paper, “Joint Modeling of Competing Risks Data and Current Status Data: An Application to Spontaneous Labour Study.”

- **Yiming Hu**  
*Yale School of Public Health*
- **Mo Li**  
*Yale School of Public Health*
- **Qiongshi Lu**  
*University of Wisconsin-Madison*
- **Hongyu Zhao**  
*Yale School of Public Health*

- **Haoyi Weng**  
*The Chinese University of Hong Kong*
- **Jiawei Wang**  
*Yale University*
- **Seyedeh M. Zekavat**  
*Yale School of Medicine*
- **Zhaolong Yu**  
*Yale University*
- **Boyang Li**  
*Yale School of Public Health*
- **Jianlei Gu**  
*Shanghai Jiaotong University*
- **Sydney Muchnik**  
*Yale School of Medicine*
- **Yu Shi**  
*Yale School of Public Health*
- **Brian W. Kunkle**  
*University of Miami Miller School of Medicine*
- **B. Shubhabrata Mukherjee**  
*University of Washington*
- **Pradeep Natarajan**  
*Massachusetts General Hospital*
- **Adam Naj**  
*University of Pennsylvania*
- **Amanda Kuzma**  
*University of Pennsylvania*
- **Yi Zhao**  
*University of Pennsylvania*
- **Paul K. Crane**  
*University of Washington*
- **Hui Lu**  
*Shanghai Jiaotong University*

For their paper, “A Statistical Framework for Cross-Tissue Transcriptome-Wide Association Analysis.”

### **Gottfried E. Noether Awards**

The Noether awards were established to recognize distinguished researchers and teachers and to support the field of nonparametric statistics. The 2020 Noether Senior Scholar Awardee is **Art Owen**, Stanford University, for outstanding contributions to the theory, methods, applications, and teaching of nonparametric statistics.

The 2020 Noether Young Scholar Award winner is **Tracey Ke**, Harvard

University, for outstanding early-career contributions to nonparametric statistics.

### **Jackie Dietz Best Paper Award**

Established in 2011, this award is given to the best paper published in the *Journal of Statistics Education* from the previous year. The 2019 Jackie Dietz Best *Journal of Statistics Education* Paper Award honorees are **Heather S. Smith**, California Polytechnic State University, and **Eric Vance**, LISA, University of Colorado-Boulder, for their paper, “The ASCCR Frame for Learning Essential Collaboration Skills.”

### **Karl E. Peace Award**

The Karl E. Peace Award for Outstanding Statistical Contributions for the Betterment of Society, established in 2012, recognizes statisticians who have made substantial contributions to the statistical profession and society in general. This year’s honoree is **Francesca Dominici**, Harvard University, for her high-quality, innovative, and policy-relevant science; for her commitment to transparency and reproducibility in science; and for her work in developing statistical methods for evaluating health effects of exposure to air pollution.

### **Waller Awards**

These honors—the Waller Distinguished Teaching Career and Waller Education awards—were established with a contribution from retired ASA Executive Director Ray Waller and his wife, Carolyn. The former recognizes an individual for sustained excellence in teaching and statistics education, and the latter honors an individual for innovation in the instruction of elementary statistics.

- **Waller Distinguished Teaching Career Award**

**Beth L. Chance**, *California Polytechnic State University*

In recognition of tireless and inspiring dedication to her students’ learning, creative and effective teaching of undergraduate statistics, high-impact contributions to curriculum and software development, and highly regarded statistics education research.

- **Waller Education Award**

**William Cipolli**, *Colgate University*  
In recognition of his innovative approaches to teaching and statistical collaboration, bringing the importance of statistics in daily life to his students and others, and for his tireless work to reform statistics education at his own institution and beyond.

### **W.J. Dixon Award for Excellence in Statistical Consulting**

Established through a gift from the family of Wilfrid J. Dixon, this award recognizes outstanding contributions to the practice of statistical consulting. This year’s award winner is **Terry Therneau**, Mayo Clinic, for developing and continuously updating the most widely used and respected survival analysis software in the world; for his long-term collaborations in hematology, hepatology, and dementia research and his outstanding contributions to advancing the science and art of statistical consulting; and for generously disseminating his expertise in both statistical analyses and statistical consulting through the use of illustrative examples.

### **Samuel S. Wilks Memorial Award**

The Wilks award honors the memory and distinguished career of Samuel S. Wilks and is bestowed upon a distinguished individual who has made statistical contributions to the advancement of scientific or technical knowledge, ingenious application of existing knowledge, or successful activity in the fostering of cooperative scientific efforts that have been directly involved in matters of national defense or public interest. **Malay Ghosh**, University of Florida was honored with the Wilks award for his outstanding contribution to small area estimation, his contribution to the theory and practice of Bayesian statistics, and for his superb teaching and mentoring of PhD students.

Be sure to check the section and chapter announcements for additional award honorees. ■

# Highlights from a JSM 2020 Virtual Panel on Professional Development in Statistical Organizations

Will Eagan, Shelley H. Liu, René Moore, Jeri Mulrow, Glenn White, Abie Ekangaki

On August 6, 2020, we presented a virtual panel for the Joint Statistical Meetings that focused on professional development in external professional societies and community groups. Our session was titled “E Pluribus Unum: Achieving Your Potential in Statistics Through Different Organizations.” Here, we provide some highlights from the session and online chat discussion and share our experiences and challenges in adapting the panel discussion for the virtual setting.

## When joining a new organization, how do you engage and build a network?

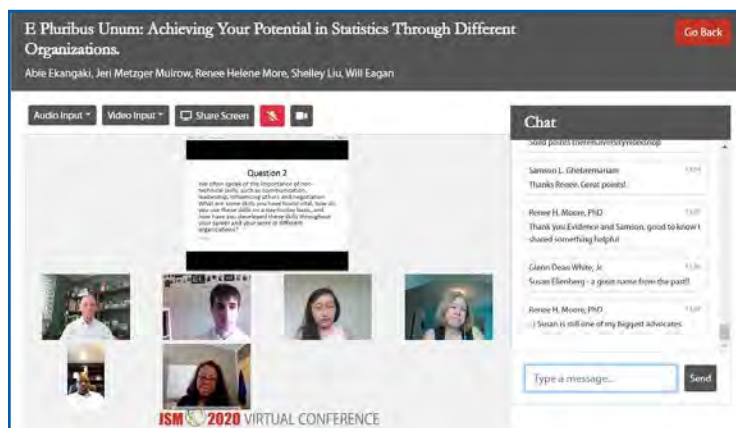
**Shelley Liu:** As a faculty member in academic medicine, my work environment is very collaborative, so when I joined Mount Sinai, I set up meetings with people I potentially wanted to collaborate with. I identified these people by speaking to supervisors and mentors, or found them while browsing the faculty profiles. While it can be helpful to have someone connect you, you can also write a cold email to someone. You can introduce yourself as a new biostatistician who joined, mention you have similar research interests, and ask if they might have time to grab coffee and chat. People generally are quite happy to meet you, but particularly in a large organization, it’s hard for them to keep track of who the new employees are. So, it’s helpful to be proactive and reach out to others. This is still possible in the current virtual world via email and video meetings.

**Jeri Mulrow:** I tried to also meet people outside of my organization but with similar career interests in statistics. I joined my local ASA chapter, which was my first foray outside of my professional work setting to start meeting people in a non-work but professional setting. I also joined internal working groups to work with people outside of my division, and that was another great way to meet people.

**René Moore:** It’s helpful to have advocates and mentors who can help guide you when you join an organization. When we talk about mentors, I like to think about “advocate.” Sometimes, this may not be your supervisor because there’s a conflict of interest with funding, but someone who can positively speak up for you and about your work when you are not in the room. As you network, be strategic in identifying potential mentors.

## What tips do you have for further developing nontechnical skills (e.g., communication, leadership, influence, and negotiation)?

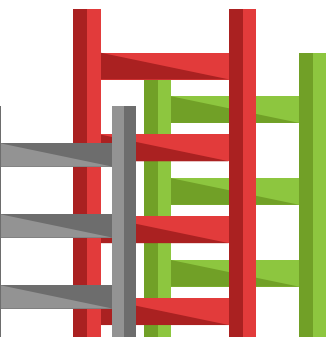
**Abie Ekangaki:** I tend to think of these very important nontechnical skills as drilling down into two key skill sets—building relationships with co-workers and building trust. In building relationships, you



The panel included, from top left, Glenn White, Will Eagan, Shelley Liu, Jeri Mulrow, Abie Ekangaki, and René Moore.

## The Panelists

- **Will Eagan**, PhD Candidate, Purdue University
- **Abie Ekangaki**, Vice President, Premier Research
- **Shelley H. Liu**, Assistant Professor, Icahn School of Medicine at Mount Sinai
- **René H. Moore**, Associate Professor and Director, Biostatistics Collaboration Core, Emory University
- **Jeri Mulrow**, Vice President and Director, Statistical and Evaluation Sciences, Westat
- **Glenn White**, Panel Chair and Chair, ASA Committee on Membership Retention and Recruitment



build a relatedness with another person, learn their interests. And in building trust, you deliver on the things you promise.

**Shelley Liu:** These skills are very important, but they also improve a lot with practice, and you can begin anytime to work on them. You can start to hone them during graduate school; some schools have a student-run biostatistics consulting service that is targeted toward students in other departments where you could practice communication skills. Graduate schools may also have negotiation classes or workshops, where you can role-play and practice negotiations with classmates through case studies. Similarly, you can practice public speaking through a graduate school class, or when you join a new organization, look for a Toastmasters chapter, which is a national club focused on public speaking.

**Jeri Mulrow:** I think of the four Cs: be clear, concise, correct, and complete in what we're writing and saying. As statisticians, we need to be multilingual. We think in a slightly different language than a lot of other people think, and we have to be able to translate what our collaborators are talking about into our language so we can actually help solve the problem. And then we have to be able to translate back into a language they understand so they can actually implement or put into practice the good statistical methods we've been developing to work with them. Getting involved in your local professional associations or other community volunteer organizations can give you an opportunity to practice these skills.

### For career development, should one stay within an organization or switch organizations in order to further develop their career?

**Reneé Moore:** I believe you should follow your passion. I was passionate about teaching, mentoring, and collaborating, rather than emphasizing developing statistical methodology, and was concerned I could not become a professor. I found a faculty track called "clinical educator" at the University of Pennsylvania that enabled me to emphasize collaborative research. I wanted to hone my skill as teacher/professor at NC State and learned to teach large classes and teach online as a teaching track professor. Now at Emory, I found a position where I have a more equal allocation of teaching, mentoring, and being a collaborative researcher on research track. At the beginning of my career, I did not plan to stay or switch organizations; my moves allowed me to follow my passions and find the right balance.

### How did the panel prepare for a virtual session?

Three months prior to the virtual meeting, our panel began to meet via Zoom to plan an outline. Through a series of five meetings, initially monthly and then weekly right before the panel session, we developed an agenda and timeline. Finally, we met two days prior to the talk to test out the panel features on the virtual app. Based on these discussions, we narrowed the focus to several topics (building networks, developing nontechnical skills, career development in one organization vs. switching organizations, how to get started in being part of statistical and community organizations, and data for the public good). As we had 110 minutes for the panel discussion, we allocated roughly the same amount of time (20 minutes) to each topic. Further, for each topic, we identified a lead speaker and secondary speakers, so the exact order of the responses was known beforehand while still providing panelists with the flexibility to chime in spontaneously.

### How did you advertise the panel session?

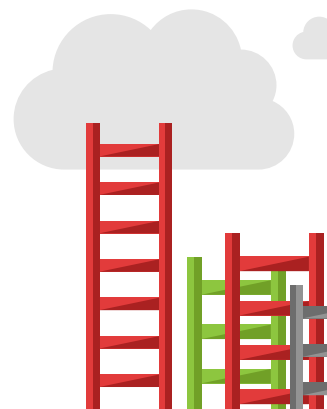
We used several routes for advertising the event: through emailing graduate statistics and biostatistics department listservs, emailing listservs from CENS and the ASA, and promotion within our LinkedIn networks.

### Do you have any tips for future panelists/organizers?

If the conference software you are using does not allow the panelists to see the audience, you can develop a poll to interact with the audience. We developed a poll asking the audience to indicate their career stage at the beginning of the panel. This also helped us know how many audience members were listening to the presentation.

You can also encourage the audience to make use of the chat feature to introduce themselves and type questions/comments throughout the session. Throughout the entire panel discussion, there was a simultaneous active chat conversation.

**Abie Ekangaki:** One way to grow is move from company to company. This is a myth. Growth does not come from jumping from one company to another company, nor does it come from staying at one company. You need to consider two factors: (1) passion and (2) opportunities for growth: lateral growth versus vertical growth. Look at growth as two dimensions to enhance your experience. You want both. Try to gain access to leadership and training; moves can be lateral or vertical. Try to determine your passions and what is important to you. Ultimately,



you will be judged by your reputation/capital. Always consider opportunities for networking.

**Jeri Mulrow:** When the position became less “fun” is when I tended to move. By “fun,” I mean new and challenging activities. In one of my earlier positions, I made a lateral move. I learned that communicating statistics to the public and policymakers was very important to me. My growth has not been linear. My passion is in official government statistics.

**Can you describe your involvement with statistical and/or community organizations and why you chose to join? How could someone get started?**

**Jeri Mulrow:** The ASA is really us; it’s really the members who make up the organization. Therefore, you can give back by becoming an actively involved member.

**Reneé Moore:** I grew up with the Eastern North American Region (ENAR) of the International Biometric Society. I first attended the Fostering Diversity in Biostatistics Workshop as an undergraduate. ENAR is one of the largest biostatistics organizations, and I have had experiences in different roles at ENAR. I am currently treasurer. I am also passionate about StatFest, a one-day statistics conference led by the ASA Committee on Minorities in

Statistics (CoMiS) that is designed for undergraduates who are under-represented minorities.

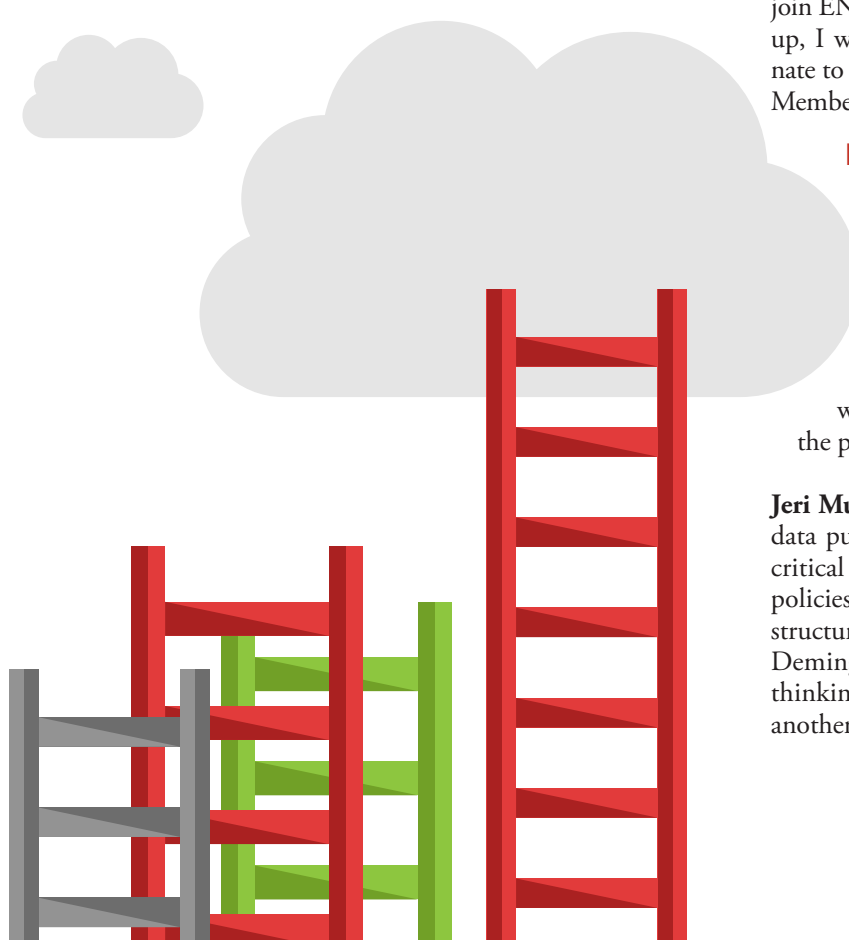
**Shelley Liu:** Right after graduate school, I got involved with ENAR’s Council of Emerging and New Statisticians (CENS). CENS is comprised of 10 members who are graduate students, postdocs, and other early-career statisticians. Key initiatives include organizing an invited session and networking sessions during the ENAR annual meeting. To get involved, look for an application during the ENAR Spring Meeting. I also serve as vice president of the Harvard School of Public Health NYC Alumni Chapter, where I help organize networking and volunteering events. I would suggest that if you move to a new city for a job, you get involved with your graduate school’s alumni chapter to meet like-minded people in biostatistics and related fields.

**Will Eagan:** My advice for students is to start simple. I started off as the treasurer of the Statistics Graduate Student Organization, and then went on to found the ASA Student Chapter at Purdue. After two years, I wanted to step back from the organization and create an organization that did not require me to sustain it. Then I could mentor future presidents. After founding the chapter, I wanted to find something that was more focused on my research and on the role of young professionals. This led me to join ENAR’s CENS. After my CENS term wrapped up, I wanted to find something new. I was fortunate to be asked to serve on the ASA Committee on Membership Retention and Recruitment.

**How can we further promote JSM 2020’s theme, “Data and Statistics for the Public Good”?**

**Will Eagan:** One thing student chapters can do is StatCom. StatCom is student pro-bono consulting for local charities and nonprofits. It is a great way to develop your technical skills and nontechnical skills with actual consulting in a manner that is for the public good.

**Jeri Mulrow:** Please fill out the 2020 Census! The data put out by the federal statistical system is so critical for the whole country. We need to make policies based on evidence. These data are infrastructure for our nation. As Dennis Lin, this year’s Deming lecturer, said, “Without good data and thinking about how it is collected, you are just another person with an opinion.” ■



# 2020 Virtual Diversity Mentoring Program

Emily Butler



The realization that the pandemic was not going anywhere fast came in the middle of the 2020 planning cycle for the Diversity Mentoring Program (DMP). However, the planning committee did not skip a beat in pivoting to a virtual format, which ensured an impactful and engaging program for participants.

More than 100 people attended each program session, and 43 mentees were matched with mentors. Participants called in from every US time zone, and the program included mentees outside of North America. This is a testament to the impact of DMP within the discipline as we close out its 11th successful year.

The program kicked off Sunday afternoon with a mentor roundtable moderated by Adrian Coles. This casual format allowed new mentors to introduce themselves and experienced mentors to share advice and best practices. Most importantly, this roundtable highlighted the deep community roots developed by the committee—a community where all are welcome and there is a strong common desire to support and foster the next generation of historically under-represented minority statisticians and data scientists.

Monday's DMP session convened at 8:00 a.m. EDT with a welcome from Dionne Price (ASA 2021 vice president-elect). Her reflections urged participants to invest as much energy into the virtual meeting as they would an in-person meeting. This was followed by a mentoring panel, moderated by Therri Usher, that brought together Emma Benn, Abie Ekangaki, Ofer Harel, and Brian Millen to discuss important components of a strong mentoring relationship for both the mentor and mentee. This candid and interactive conversation covered topics such as virtual mentoring, starting and ending

mentoring relationships, and the importance of safe spaces and trust.

Tuesday's DMP session focused on preparing participants to start or transition their career. It kicked off with a thorough presentation by Swift, Rebecca Wilson, Chelsea Robalino, and Christian Geneus that provided tips on preparing for the job search and tricks for nailing the job interview. Vladimir Geneus followed this with a presentation on building your elevator speech—a critical skill for anyone on the job hunt. The morning concluded with a presentation by Chris Kinson about building an online presence (outside of social media).

The program concluded with the Wednesday morning session, which Rob Santos opened. He shared thoughts about helping those in positions of power understand the struggles and institutional barriers faced by historically under-represented minorities. This was followed by a conversation about meeting the current moment as an under-represented minority. René Moore, Machell Town, Beimar Iriarte, and Emily Butler led the discussion on navigating the implications of national media coverage of racial injustice as a professional, the importance of self-care in these tumultuous times, and influencing a culture shift at one's organization.

The challenges surrounding COVID-19 allowed for new opportunities this year and sparked ideas for scaling up the program in the future. Above all, participants were reminded of the importance of strong inclusive community and the agility and creativity that can be leveraged from such inclusiveness during trying times.

For more information about the JSM Diversity Mentoring Program, contact Butler at [emily.lynn.butler@gmail.com](mailto:emily.lynn.butler@gmail.com). ■

# Winners of 2020 COPSS AWARDS

Huixia Judy Wang, COPSS Treasurer/Secretary



From left: Rina Foygel Barber (The University of Chicago, 2020 COPSS Presidents' Award); Amita Manatunga (Emory University, 2020 Elizabeth L. Scott Award and Lectureship); Kathryn Roeder (Carnegie Mellon University, 2020 COPSS Distinguished Achievement Award and Lectureship)

**T**he Committee of Presidents of Statistical Societies (COPSS) presents awards annually to honor statisticians who have made outstanding contributions to the profession. For 2020, three awards were presented at the Joint Statistical Meetings on August 5 by COPSS Chair Bhramar Mukherjee and the award committee members.

**Rina Foygel Barber** of The University of Chicago is the winner of the 2020 Presidents' Award. This award is presented annually to a young member of one of the COPSS participating societies in recognition of outstanding contributions to the profession. The award citation recognized Barber "for fundamental contributions to statistical sparsity and selective inference in high-dimensional problems; for the creative and novel knockoff filter to cope with correlated coefficients; for contributions to compressed sensing, the jackknife, and conformal predictive inference; and for the encouragement and training of graduate and undergraduate students." See the interview with Barber on Page 31 of this issue.

**Amita Manatunga** of Emory University is the 2020 Elizabeth L. Scott Award and the first E. L. Scott Lecturer. This award is granted biennially to an individual who has helped foster opportunities in

statistics for women. The award citation recognized Manatunga "for dedicated mentoring of the next generation of statisticians; committed leadership in expanding statistical opportunities for women and minorities at the individual, institutional, and professional society levels; and excellence in biostatistical research." Manatunga's lecture was titled "Statistical Methods for Diagnosis of Complex Diseases with Complex Data."

**Kathryn Roeder** of Carnegie Mellon University is the recipient of the 2020 COPSS Distinguished Achievement Award and Lectureship. This award recognizes outstanding scholarship in statistical sciences that has had a highly significant impact of statistical methods on scientific investigations. The award citation recognized Roeder "for outstanding contributions to statistical science in the areas of mixture models, semiparametric inference, and multiple testing and to the development of statistical methods aimed at finding the genetic basis of human disease, including the development of powerful methods for discovering genes underlying psychiatric disorders such as autism." Roeder's lecture was titled "Statistics and Genetics Offer a Window into Autism." ■



# Rina Foygel Barber Wins 2020 COPSS Presidents' Award

**R**ina Foygel Barber is professor in the department of statistics at The University of Chicago. Previously, she was a National Science Foundation postdoctoral fellow in the department of statistics at Stanford University, supervised by Emmanuel Candès. She earned her PhD in statistics from The University of Chicago in 2012, advised by Mathias Drton and Nathan Srebro, and an MS in mathematics at The University of Chicago in 2009. Prior to graduate school, Barber earned an ScB in mathematics from Brown University and was a mathematics teacher at the Park School of Baltimore from 2005–2007.

The Presidents' Award parallels the Fields Medal in mathematics and is given annually by COPSS to a young member of the statistical community in recognition of outstanding contributions to the profession. The Presidents' Award and International Prize in Statistics are the two highest statistics honors.

Barber was recognized for her fundamental contributions to statistical sparsity and selective inference in high-dimensional problems; for the creative and novel knockoff filter to cope with correlated coefficients; for contributions to compressed sensing, the jackknife, and conformal predictive inference; and for the encouragement and training of graduate and undergraduate students.

Huixia Judy Wang, COPSS secretary/treasurer, took a moment to ask Barber several questions, which she answers here.

## What was your first reaction to winning the prestigious COPSS President's Award?

I was stunned! There are so many phenomenal researchers in our field and so many fascinating new ideas and findings each year. It's an incredible honor to be selected.

## Which part of your job do you like the most?

There are so many aspects of my work that I enjoy. I am fortunate to have worked with so many wonderful, talented, and creative students and to have enjoyed collaborations with colleagues around the world who constantly inspire me and who have taught me so much. My favorite moments are when I have the chance to meet with students or collaborators to brainstorm and explore new ideas. I also enjoy teaching and developing new ways to present topics or engage with students in the class. I appreciate that this job is very flexible and the statistics community is very welcoming and family-friendly—with two young children, it's great to be able to work from home and set my own schedule, and I love that my kids are always welcome on campus, too.

## What advice would you give to young people who are entering the profession as PhD students and assistant professors?

They are making a great decision! Statistics is such a dynamic, broad, and fascinating field, and there is such a wide variety

of directions to pursue as a career. I would advise new statisticians to search for ideas, problems, and applications that they find fascinating and would love to learn about, even if working in those areas doesn't seem like it will be immediately productive—investing in broader knowledge and perspectives is always worth it in the long term, in order to pursue deeper questions and to maintain passion for our work.

## Who are your most significant mentors? How did/do they impact your career?

I have been fortunate to have phenomenal mentors throughout my career. In particular, I am so lucky to have worked with my PhD advisers, Mathias Drton and Nathan Srebro, and my postdoc supervisor, Emmanuel Candès. I learned so much from working with each of them and have benefited immensely from their insight and mentorship. They have encouraged me to seek challenges and broader perspectives in my work and have offered invaluable guidance and support. My colleagues in my department have also been an amazing source of support, mentorship, and advice. Finally, I am immensely grateful to my parents and my husband—in addition to their constant support, their own passion for their work in the sciences and the arts has inspired me throughout my career.

## Why were you drawn to high-dimensional data, optimization, and multiple testing?

For me, these areas offer the opportunity to study questions that are both mathematically beautiful and extremely practically relevant. I first became interested in these areas after learning about compressed sensing early on in my PhD and have been fascinated by these topics ever since. I love that these topics lead to many surprises, where research in this community takes a sudden turn to discover new ideas about methods that were previously believed to be fully understood, or problems that were previously believed to be impossible. Looking ahead, I'm excited to see how work in these fields continues to integrate with modern large-scale applications and with machine learning tools.

## Anything else you would like to share about our profession?

I am incredibly grateful to be part of this community and am constantly inspired by the amazing work of my colleagues. I am also proud to see so many people in our field working toward equality, diversity, and social justice, as well as contributing in countless ways to help support all the efforts of the medical and public health fields during the coronavirus pandemic.

## Finally, what are your hobbies/interests beyond statistics?

I love to be outside with my kids and to explore Chicago with them. I also love to read and enjoy knitting and barre fitness. ■



William Brenneman  
Procter & Gamble



Roshan Joseph  
Georgia Institute of  
Technology



Shan Ba  
LinkedIn\*



Fang Cao  
Wells Fargo\*



Li Gu  
Amazon Inc.\*



Evren Gul  
Nielsen\*



Lulu Kang  
Illinois Institute of  
Technology\*



William R. Myers  
Procter & Gamble



Chien-Fu J. Wu  
Georgia Institute of  
Technology

\*Former Georgia Institute of Technology graduate students and their current affiliation

# 2020 SPAIG Award Honors Research Collaboration

Willis Jensen, WL Gore and Associates, and Pamela McGovern, USDA National Agricultural Statistics Service, on behalf of the ASA SPAIG Committee

The annual ASA Statistical Partnerships in Academe, Industry, and Government (SPAIG) Award highlights outstanding partnerships between academe, industry, and government organizations and promotes new partnerships. This award is distinct from other ASA awards in that it recognizes outstanding collaborations between organizations, while recognizing key individual contributors.

This year's SPAIG Award honors the collaboration between Procter & Gamble (P&G) and the H. Milton Stewart School of Industrial and Systems Engineering at Georgia Institute of Technology (GT). The award winner was announced as part of JSM 2020 and recognizes their collaborative research leading to significant advancements in quality, reliability, and analysis and design of physical and computer experiments.

We asked William Brenneman from P&G and Roshan Joseph from GT to answer the following questions about their collaboration:

## Briefly describe how the collaboration started.

**William:** P&G and GT started their collaboration through relationships formed at the University of Michigan (1996–2000). Roshan and I were graduate students together in the statistics department and Jeff Wu was the chair. After graduation (2000), I started working at P&G and Roshan and Jeff became faculty at GT (2003). We kept in touch through meeting at conferences. The research started in 2006, when I supervised Lulu Kang as a P&G summer intern. Lulu also did a second internship, and each one resulted in a published paper on research that was of high importance to P&G. The second paper on mixture-of-mixture analysis and design was part of Lulu's dissertation.

## What are the major benefits that have come from the collaboration that would not have otherwise happened?

**William:** The major benefits for P&G have been that we have solved problems that are of interest and benefit to P&G research and development. Most of the topics are in the design and analysis of experiments, either physical or computer, or the combination of both. Each of the solutions have been utilized at P&G in our innovation process. From a personal perspective, the collaboration has

really brought great joy to my work life—to be able to work with Roshan and Jeff, who are incredibly innovative, and their top-notch students has really added to my professional satisfaction. And I would say that working directly with the students and getting to know them on a personal level, especially through the internships or research assistantships, has been very gratifying personally.

**Roshan:** One of the major benefits of collaborating with P&G was that we got to work on real-life problems. Many of the problems have led to methodological research in statistics and journal publications. But most importantly, seeing the results being used in practice gave great satisfaction for our research. The students also benefitted a lot from the collaboration. Both William Brenneman and William Myers (another collaborator) were actively involved in dissertation committees of our PhD students. Whenever they visited the GT campus, they were keen in talking to the students and sharing their experience of working as a statistician in industry. In fact, William Brenneman has held the position of an adjunct professor at GT since 2013 because of the valuable mentoring he has provided to our students.

## What has been the most rewarding and challenging aspects of the collaboration?

**William:** As I mentioned above, the most rewarding part has been working with Roshan, Jeff, and the many students. I really like to see the students go on to make contributions after graduating in either industry or academia. That is really rewarding—a part of me would like to work full time with students, but at least this allows me to do this on a very part-time basis. The other rewarding part is that finding really good new stats problems can be hard when in academia, and so when I run into problems that I know are new, it is really satisfying to partner with academia to see how the problems enhance the academic process, as well. A truly win-win for both in my mind.

The most challenging aspects have been around the legal part of the research. Working with GT has become more routine, but at first it was difficult working with both P&G and GT legal teams to come up with an agreement that is okay for both sides.

**Roshan:** Working with P&G statisticians was extremely rewarding because they were all very well-versed in

advanced statistical methods. The research problem was already well formulated, or easy to formulate within a few meetings. Their expectations were clear, and the communications were very easy. So, we really enjoyed every bit of our collaboration with P&G. Personally, one of my most rewarding experiences was when my former student, Shan Ba (another contributor), joined P&G's statistics department as a scientist. He became an integral part of the department and further strengthened our collaboration.

As William mentioned, the legal part was the most challenging aspect of the collaboration, but once it was established, everything else went smoothly.

### What advice would you give to individuals and organizations looking to be more collaborative?

**William:** I would say to individuals from industry to just get started. The easiest way is through internship and co-op experiences. Even if the intern project is just more routine, it can be of great value to the student to experience life as an industrial statistician. But the best experiences are those in which we in industry can determine a problem that requires new research and that can be started during the internship period, but then followed up after the student goes back to the university. The hard part for those in industry is keeping up with as much of the latest research as we can so we can identify new research opportunities. This is easier said than done, but is well worth the effort, as solving these types of problems can lead to much better solutions for the company and much better research problems for students' dissertations. Win-win.

**Roshan:** Academia tends to value theoretical research more, but the satisfaction you can gain by doing applied research and the potential to make an impact in real practice is well worth the time and effort. My advice is that when you work on an industry problem, the primary focus should be to solve the problem in the most beneficial way to the industry. Many times, these problems will lead to new methodological research and student dissertations, but that should be considered as a secondary goal. The collaboration has also enriched my teaching. I found my students are better motivated when I share my real experience from industry, rather than when I talk to them about some textbook examples.

For more information about the SPAIG Committee and award nominations, visit [www.amstat.org/ASA/Your-Career/Awards/Statistical-Partnerships-Among-Academe-Industry-and-Government-Award.aspx](http://www.amstat.org/ASA/Your-Career/Awards/Statistical-Partnerships-Among-Academe-Industry-and-Government-Award.aspx). Nominations for the 2021 SPAIG Award are due March 1, 2021. ■

# NISS Writing Workshop an Annual Success for Early Researchers

Lingzhou Xue, James Rosenberger, and Glenn Johnson



Imagine you are a young faculty member or someone who has recently been hired as a statistician. You've worked harder than you ever thought possible and were duly awarded your PhD. You've perhaps worked a year or two in a new position that your degree made possible, but now the honeymoon is over! You look around and start thinking deeply about your future for the first time. The doubts and questions begin to creep in. Can I make it in this new profession? How do I get my feet on the ground? How do I decide what is important?

Okay. You tell yourself to relax. It's simple. You decide the best thing for you to do is reach out to about 25 well-known statisticians and senior editors of the best journals in your field. You can ask them to share their experiences with you and give you advice as your career lies before you. It would be good to know more about writing effectively, the review and revision process, where it makes sense to publish, and maybe even the collaborative writing process. You will even get one of them to mentor you and review something you are working on. That would be great! And, oh yes, you will make sure you have a few experienced grant writers, maybe even invite a few from granting agencies that oversee the review process. That would do it, right? Hmm ... You think, "Maybe I ought to finish off this dream by talking with a handful of individuals who beat the odds, individuals who have found their way and made a name for themselves despite not traveling the more traditional journey."

Wait. What? Time to wake up? This can't be possible! Or, can it?

In fact, the National Institute of Statistical Sciences (NISS) has been doing this since 2007. Each year, in conjunction with JSM, NISS gathers a host of senior authors, editors, grant writers/reviewers—individuals

who take valuable time out of their day to share their advice and experiences with a group of junior faculty and early researchers. The dream described above is not a dream!

As you know, JSM went virtual this year. So did the writing workshop, which meant participants who might not have been able to travel to Philadelphia (even under normal circumstances) were able to participate. What also made this workshop a bit different than the larger webinars NISS has hosted lately is that participants were able to ‘raise their hand’ and use their microphone to ask questions live. This made for a much more interactive experience.

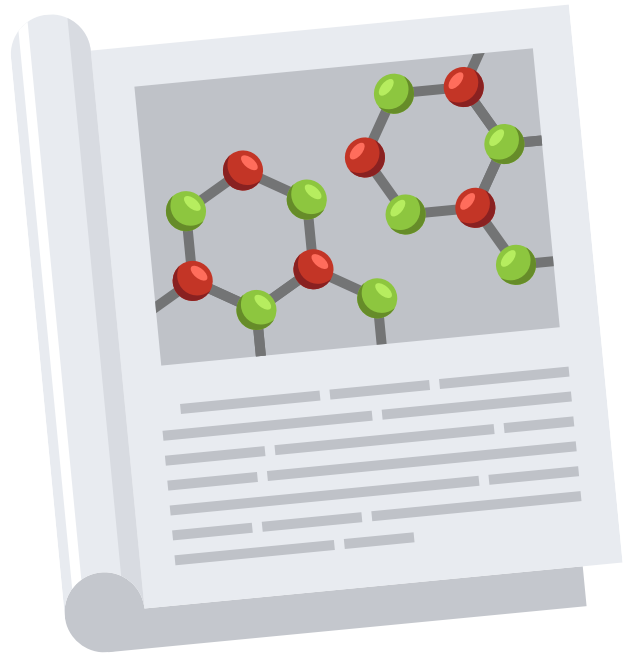
A virtual lunchtime was also included, which allowed participants to go to virtual breakout rooms with their senior mentor and discuss the publication pieces they have been working on. And for fun, towards the end of the conference (at the request of participants), random breakout rooms were created to give participants a chance to get to know each other.

During the first day of the workshop, **Leland Wilkinson** of H2O.ai and the University of Illinois at Chicago gave an informative presentation, titled “Writing for Data Science and Statistics,” that focused on writing skills and the evaluation of good and bad writing.

**Nick Jewell** of the University of California at Berkeley and London School of Hygiene & Tropical Medicine gave a talk titled “Choosing Where to Publish (and Some Clues as to How to Get Published).”

**Lingzhou Xue** of NISS and Penn State University moderated a panel of editors who shared advice about publishing in statistics and biostatistics journals. The panelists included **Xuming He** of the University of Michigan, **Nicole Lazar** of the University of Georgia and Penn State University, **Tyler McCormick** of the University of Washington, **David Rocke** of the University of California at Davis, and **Hal Stern** of the University of California at Irvine.

On the second day of the workshop, **Naomi Altman** of Penn State University gave a talk titled “The Review and Revision Process.” She was followed by **Susan Ellenberg** of the University of Pennsylvania with “How to Write a Collaborative Paper.” **Peter Imrey** of the Cleveland Clinic rounded out the morning with an insightful presentation titled “Ethical Issues and Reproducibility.”



The afternoon panel sessions started with practical approaches to writing grants moderated by **Keith Crank** and included panelists **Cheryl Eavey** of the National Science Foundation, **Karen Messer** of the National Institutes of Health and University of California at San Diego, and **Judy Wang** of the National Science Foundation and Georgia Washington University).

A second panel explored issues related to personal career advancement. Speakers included **Emma Benn** of the Icahn School of Medicine at Mount Sinai, **Edsel Peña** of the University of South Carolina, **Ali Shojaie** of the University of Washington, and **Wang**.

Noteworthy is the time senior statisticians take to focus on a piece of writing participants are working on. The following served as mentors this year: **Jim Albert** of Bowling Green State University (retired); **Roger Berger** of Arizona State University (retired); **Tim Hesterberg** of Google; **Gabriel Huerta** of Sandia National Laboratories; **Aleksandra Slavkovic** of Penn State University; and **John Stufken** of The University of North Carolina at Greensboro.

The value of this workshop can be measured by the number of speakers and mentors who, early in their careers, were participants of this same workshop.

NISS will continue to organize this event in conjunction with JSM. Visit the NISS website at [www.niss.org](http://www.niss.org) for information about next year’s writing workshop in Seattle, Washington. ■



## Beyond Big Data: Shaping the Future

Wendy Martinez, 2021 SDSS Program Chair

Full steam ahead to Union Station! That is, to the St. Louis Union Station Hotel for the 2021 Symposium on Data Science and Statistics (SDSS). We hope to hold the conference in person in St. Louis, Missouri, from June 2–5. The theme of the 2021 conference is Beyond Big Data: Shaping the Future. The program committee is already working hard to ensure SDSS 2021 is success.

Since its beginning in 2018, the community has known SDSS for being innovative. This year, we are excited to continue to innovate with another big change. For 2021, we will eliminate invited sessions and build a program only from contributed refereed presentations. The program will still include poster sessions, plenary addresses, and short courses. We will also continue the contributed refereed submission process that will allow us to create a program showcasing high-quality work from diverse fields.

Submissions for refereed presentations will be accepted from October 1 through November 23. E-poster submission will open February 1 and continue through March 10, 2021. In 2021, the e-posters will include the opportunity for lightning talks (or speed sessions). See the website for more information and to sign up for the mailing list: [ww2.amstat.org/meetings/sdss/2021](http://ww2.amstat.org/meetings/sdss/2021).

The SDSS program is organized into the following six tracks:

- Computational Statistics
- Machine Learning
- Data Visualization
- Practice and Applications
- Education
- Software & Data Science Technologies

The program committee is working with the editor of *Stat*, Helen Zhang, to continue the partnership between SDSS and the journal. The pilot project to co-edit selected papers from SDSS 2020 is underway. The papers are being reviewed following the usual *Stat* referee process, and selected SDSS 2020 papers will be published in a special issue coming soon. We plan to do the same with SDSS 2021. *Stat* is the journal of the International Statistical Institute (ISI) with the goal to rapidly disseminate peer-reviewed statistical research. See <https://onlinelibrary.wiley.com/journal/20491573> for more information about the journal.



I am so excited that SDSS is going to take place in St. Louis. I visited there many years ago for another conference, and I took in several of the sights. One of them is the famous Gateway Arch, which is sometimes known as the “Gateway to the West.” I remember watching the film showing how it was built and being fascinated by the construction process. You can ride a little pod to the top, where you have an excellent view of the city and Mississippi River. I’m sure the ASA meetings staff will give us a list of things to do, but you might check out this website to get started planning your excursions: [bucketlistjourney.net/st-louis-bucket-list-things-to-do](http://bucketlistjourney.net/st-louis-bucket-list-things-to-do). ■

## Nominations Sought for 2021 COPSS Awards

Please visit <https://community.amstat.org/copss/home> for details of eligibility and nomination requirements for the following awards. Nominations should be sent by email in PDF format to the committee chairs.

### 1. The Presidents' Award

([bit.ly/COPSSPresAward](https://bit.ly/COPSSPresAward)) is presented annually to a young member of one of the participating societies of COPSS in recognition of outstanding contributions to the statistics profession. It is typically granted to an individual who either i) has not yet reached his or her 41st birthday during the calendar year of the award or ii) will be under age 46 throughout the award calendar year and will have received a terminal statistically related degree no more than 12 years prior to that year. Nominations must be sent by December 15, 2020, to Paul Gustafson at [gustaf@stat.ubc.ca](mailto:gustaf@stat.ubc.ca).

### 2. The Distinguished Achievement Award and Lectureship

([bit.ly/COPSSdistinguished](https://bit.ly/COPSSdistinguished)) is given yearly to an individual in recognition of outstanding contributions to statistical methods that have had significant impact on scientific investigations. This award was formerly known as the R.A. Fisher Lectureship. The 2021 award winner will deliver the lecture at JSM in Seattle, Washington. Nominations must be sent by December 15, 2020, to Daniela Witten at [dwitten@uw.edu](mailto:dwitten@uw.edu).



F.N. David

### 3. The F.N. David Award and Lectureship

([bit.ly/COPSSFNDavid](https://bit.ly/COPSSFNDavid)) is presented biennially in odd-numbered years to a female statistician who serves as a role model to other women by her contributions to the profession through excellence in research, the leadership of multidisciplinary collaborative groups, statistics education, or service to the professional societies. The 2021 award winner will deliver the F.N. David Lecture at JSM in Seattle, Washington. Nominations must be sent by December 15, 2020, to Nancy M. Gordon at [nancymg@mac.com](mailto:nancymg@mac.com).

### 4. The George W. Snedecor Award

([bit.ly/COPSSSnedecor](https://bit.ly/COPSSSnedecor)) is presented biennially in odd-numbered years to honor an individual who has been instrumental in the development of statistical theory in biometry and with a noteworthy publication in biometry within three years of the date of the award. Nominations must be sent by December 15, 2020, to Kerrie Mengersen at [k.mengersen@qut.edu.au](mailto:k.mengersen@qut.edu.au).



George W. Snedecor

### Ethel Newbold Prize

The Bernoulli Society's Newbold Prize Committee invites nominations for the fourth Ethel Newbold Prize.

The Ethel Newbold Prize is awarded every two years for excellence in statistics and recognizes the historically important role of women in statistics, although the prize is for excellence in statistics without reference to the gender of the recipient and will not be awarded unless nominations include candidates from both genders.

The prize is to be awarded to an outstanding statistical scientist for a body of work that represents excellence in research in mathematical statistics and/or excellence

in research that links developments in a substantive field to new advances in statistics.

The winner, to be selected in the spring of 2021, will be awarded 2,500€ (almost \$3,000) and a certificate. The prize will be awarded at a Bernoulli World Congress, Bernoulli-sponsored major conference, or ISI World Statistics Congress. The awardee will also be invited to present a talk at one of these conferences.

Each nomination should include a letter outlining the case in support of the nominee and a curriculum vitae. Nominations and inquiries about the award should be sent to Jon Wellner at [jonw@uw.edu](mailto:jonw@uw.edu). The deadline for nominations is November 30.

For more information about the Ethel Newbold Prize, visit [www.bernoulli-society.org/index.php/prizes?id=207](http://www.bernoulli-society.org/index.php/prizes?id=207). To learn more about other Bernoulli Society awards, visit [www.bernoulli-society.org/index.php/prizes](http://www.bernoulli-society.org/index.php/prizes).

### Stan Altan Nonclinical Biostatistics Paper Award

The ASA Biopharmaceutical Section Nonclinical Biostatistics Working Group is accepting nominations for the 2021 Stan Altan Nonclinical Biostatistics Paper Award.

The paper must address a relevant topic in "nonclinical biostatistics," but the scope is broad and generally includes everything but topics directly related to clinical trials. This would span (but not be limited to) topics covered in the book *Nonclinical Biostatistics for Pharmaceutical and Biotechnology Industries*. Topics such as biomarker discovery, machine learning, and AI, which do not directly concern trial design (phase I–IV), are also welcome.

All eligible papers must have been published (or been accepted for publication) in an English-language refereed journal between January 1, 2014, and March 1, 2021. Send an electronic copy of your paper to Jason Zhang at [zhangjc98@gmail.com](mailto:zhangjc98@gmail.com) and include contact information for all co-authors (e.g., email addresses). Submissions are due March 15, 2021.

The best paper award will be presented to the winning author(s) at the 2021 Nonclinical Biostatistics Conference at Rutgers University. Due to COVID-19, the award may be mailed to recipients directly.

For details, visit <http://community.amstat.org/biop/workinggroups/ncbwg/awards>. ■



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## Key Dates for Participants

November 12 – December 10, 2020  
Topic-Contributed Session Proposal Submission

December 1, 2020 – February 2, 2021  
General Abstract Submission

January 15, 2021  
Computer Technology Workshop  
Proposal Deadline

January 20 – April 1, 2021  
Meeting and Event Request Submission

February 3 – April 15, 2021  
Late-Breaking Session Proposal Deadline

May 15, 2021  
Draft Manuscript Deadline

## Key Dates for Attendees

May 3, 2021  
Registration and Housing Open  
(11:00 a.m. ET)

May 31, 2021  
Early Registration Deadline

June 30, 2021  
Regular Registration Deadline

July 1, 2021  
Housing Deadline

**August 7–12, 2021**

Seattle Convention Center

[ww2.amstat.org/meetings/  
jsm/2021](http://ww2.amstat.org/meetings/jsm/2021)





## Obituaries

### Aubrey Dale Magoun

Aubrey Dale Magoun, 75, passed away at his home in Tallulah, Louisiana, on December 10, 2019, following a long, serious illness.

Dale was born May 15, 1944, in Ferriday, Louisiana, and graduated from Ferriday High School before earning a bachelor's and master's degree in mathematics from the University of Louisiana-Monroe (then NLU). He was awarded a PhD in mathematical statistics from the University of Louisiana-Lafayette and completed postdoctoral hours in computer science at Mississippi State University.

Dale began his career at Ethicon in Somerville, New Jersey, as a biostatistician. When the opportunity arose to move south, he went

to work for the Army Corps of Engineers in Vicksburg, Mississippi, and returned to his Louisiana roots, settling in Tallulah.

In Vicksburg, he taught evening graduate classes for LSU and realized teaching on the college level was his true calling. He joined the ULM faculty and, over the next three decades, took great professional pride in his teaching, being an integral part of many leadership committees and serving as department head of computer science, mathematics, and physics. He collaborated with colleagues at ULM and other universities to present research papers at professional conferences throughout the US and in Copenhagen, Denmark, and Vienna, Austria. He formed his own consulting company and

worked for private and government agencies on environmental, defense, and quality control projects. He never ceased growing his professional skills. When illness limited his stamina in the classroom, he turned to full-time online teaching, which he enjoyed to the end.

Dale is survived by his devoted wife of 52 years, Louise Testa Magoun; his loving children, son Jay and wife Sara of Bethpage, Tennessee; daughter Katie Magoun Williams and husband George of New Orleans; and grandchildren Joseph and Andrew Magoun and Trey Williams.

To read his full obituary, visit [www.glenwoodfuneralhomes.com/notices/Aubrey-Magoun](http://www.glenwoodfuneralhomes.com/notices/Aubrey-Magoun).

### Willem van Zwet

Willem van Zwet, emeritus professor at the Mathematical Institute Leiden, passed away July 2, 2020. He was 86.

Willem was both a renowned scientist and a powerful organizer. His work on asymptotic expansions and higher-order efficiency of nonparametric statistics is well known, but he also worked on a wide range of other topics, including resampling methods, plant cell statistics, and spatial stochastic processes. His thesis work (published as a monograph in 1964) on convex transformations of random variables is still cited. He was a superb lecturer and delivered the Hotelling, Wald, and Bahadur lectures, among many others.

Willem served as president of the Institute for Mathematical Statistics (IMS), Bernoulli Society, and International Statistical Institute. He was editor-in-chief of the *Annals of*

*Statistics* and *Bernoulli*, as well as a board and corporation member of the National Institute for Statistical Sciences in North Carolina and member of the ASA Board of Directors. He also held many other offices and memberships of program, prize, review, advisory, restructuring, organizing, or publication committees.

Willem received numerous awards for his work, including an honorary doctorate from Charles University in Prague and memberships in the Royal Netherlands Academy of Sciences and Academia Europaea. Willem himself would have been proud to mention his knighthood in the Order of the Netherlands' Lion, a token of appreciation by his home country (1996). He was instrumental in seeing similar honors bestowed on his international colleagues, including Peter Bickel, Jon Wellner, and Marie Hušková.

Willem's career coincides with a period of major changes in statistics,

but also in the world of science in general. A 2006 interview by Rudy Beran and Nick Fisher gives an interesting, and sometimes hilarious, picture of that period and Willem's vision of it, which is still relevant today. It was published in *Statistical Science* in 2009: "An Evening Spent with Bill van Zwet" (<https://projecteuclid.org/euclid.ss/1255009013>).

One of Willem's hobbies emerges in his answer to Rudy and Nick's question, "If you were stuck on a desert island with a limited choice of reading materials, which of your papers—among those available—would you take with you?" He replied, "That is a strange question. Why would I take any of my papers? A crate of Dutch jenever [gin], or bourbon if you like, would make a lot more sense."

To read Willem's full obituary, visit the IMS website at <https://imstat.org/2020/08/13/obituary-willem-van-zwet-1934-2020>.

# FSU Announces Nancy Reid as Inaugural Myles Hollander Distinguished Lecturer

The Florida State University Department of Statistics announces Nancy Reid, university professor and Canada Research Chair in Statistical Methodology at the University of Toronto, as the inaugural speaker for its newly endowed Myles Hollander Distinguished Lecture.



Nancy Reid

Reid will present “Three Rs—Reliability, Replicability, Reproducibility: The Interplay Between Statistical Science and Data Science,” October 30. For more information and to register for the virtual talk, visit [stat.fsu.edu/HollanderLecture](http://stat.fsu.edu/HollanderLecture).

The Myles Hollander Distinguished Lectureship was established by Robert O. Lawton, distinguished professor and statistics professor emeritus at Florida State University, in appreciation of the university, its statistics department, and the statistics profession. The annual lectureship will recognize an internationally renowned leader and pioneering researcher in statistics who has made a sustained impact on the field, and the lectures

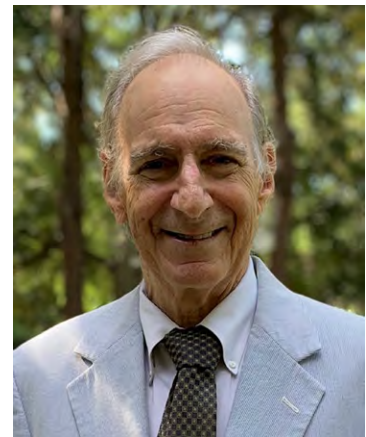
will feature topics spanning the breadth of statistics.

Reid earned her PhD from Stanford in 1979 and taught at the University of British Columbia from 1980 to 1985, before moving to the University of Toronto. Among her many professional honors are the President’s Award of the Committee of Presidents of Statistical Societies in 1992. She is also a fellow of the Royal Society of London, foreign associate of the US National Academy of Sciences, and fellow of the Royal Society of Canada. In 2014, she was appointed to the Order of Canada for her extraordinary contributions to the Canadian nation.

Reid’s research has had broad influence, including in statistical theory, likelihood inference, design of studies, and statistical science in public policy. Her main research contributions have been to the field of theoretical statistics. The goal is to use information from noisy data as efficiently as possible, and to elucidate general principles for doing so, to provide structures for developing new statistical methods in new areas of application.

Hollander joined the FSU Department of Statistics in 1965 upon completion of his MS and PhD in statistics at Stanford University and his BS in mathematics from Carnegie Institute of Technology. He made substantial and enduring research contributions to nonparametric statistics, reliability theory, survival analysis, biostatistics, and probability theory. Hollander co-authored

textbooks on nonparametric statistics, biostatistics, and introductory statistics. He is a fellow of the American Statistical Association, fellow of the Institute of Mathematical Statistics, and an elected member of the International Statistical Institute. Hollander served as editor of the *Journal of the American Statistical Association*, Theory and Methods (1994–1996). In 2003, the ASA recognized him with the Gottfried E. Noether Senior Scholar Award for his excellence in theory, methodology, and applications in nonparametric statistics.



Myles Hollander

At FSU, Hollander served as chair of statistics for nine years (1978–1981, 1999–2005). He received the Professorial Excellence Award in 1977, was named distinguished research professor in 1996, and named Robert O. Lawton Distinguished Professor—the highest honor Florida State faculty bestow upon one of their own—in 1998. He retired in 2007 after 42 years of service. ■

ASA member **Brandon Carter** joined the Institute for Defense Analyses (IDA) as a summer associate in the Strategy, Forces, and Resources Division of IDA's Systems and Analyses Center.

Carter is working toward his doctorate in statistics at The University of Texas at Austin. He earned his master's degree in statistics from Brigham Young University in 2019.

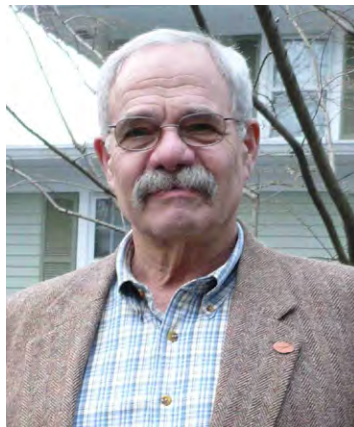
IDA is a nonprofit corporation that operates three federally funded research and development centers in the public interest. IDA answers the most challenging US security and science policy questions with objective analysis leveraging extraordinary scientific, technical, and analytic expertise. ■

*Submitted by Jun Yan, ASA Joint Section on Statistical Computing and Statistical Graphics Awards Chair*

The Joint Statistical Computing and Statistical Graphics Section have awarded the 2021 ASA Statistical Computing and Graphics Award to **Howard Wainer**. His citation reads as follows:

For half a century of dedicated, influential promotion of the role of graphics, computing, and statistical thinking in scientific discovery and

communication and for inspiring others to elevate their data visualization craft to an art form by being a generous and engaging teacher, mentor, collaborator, and author.



Howard Wainer

Wainer was a distinguished research scientist for the National Board of Medical Examiners and an adjunct professor of statistics at the Wharton School of the University of Pennsylvania prior to his retirement in 2016. He earned his PhD in psychometrics from Princeton University in 1968. After being on the faculty of psychology at Temple University and The University of Chicago and a period at the Bureau of Social Science Research, he was senior and principal research scientist at the Educational Testing Service Division of Statistical and Psychological Research Services for 21 years.

He has a long-standing interest in the use and practice of statistical graphics in scientific inquiries and has published nearly two dozen books on graphics and statistical thinking and contributed to the development of graphical methods and software. He has written a column on data visualization for *CHANCE* magazine since 1990. Wainer is a fellow of the American Statistical Association and American Educational Research Association.

The ASA Statistical Computing and Graphics Award recognizes an individual or team for innovation in computing, software, or graphics that has had a significant impact on statistical practice or research. Past awardees include Luke Tierney (2019), Bill Cleveland (2016), and Robert Gentleman and Ross Ihaka (2010).

The award will be presented at the sections' mixer during the 2021 Joint Statistical Meetings. Additionally, an invited session honoring Howard Wainer and organized by David Hoaglin is reserved for JSM 2021.

To learn more about Wainer, visit [www.statlit.org/Wainer.htm](http://www.statlit.org/Wainer.htm). ■

# Students Gain Collaboration Skills Through SFASA Summer Project

Anwen Huang, Elaina Li, Avelyn Liang, Aayushi Agrawal, Angela Zhang, Vivian Wang, and Li Zhang

Despite the obstacles COVID-19 has introduced this year, SFASA continued its K–12 student summer project program for the second year. First organized by Li Zhang, former president of SFASA, in 2019, this program consists of student-designed projects completed under the mentorship of SFASA officers.

Liang (9th grader, Mentor: Ray Lin, SFASA president-elect/Genentech/Roche) presented their work about teenagers’ experiences with distance learning, which suggested distance learning is less effective than regular school, but students preferred the less difficult assignments and more lenient grading.

Angela Zhang (11th grader, Mentor: Ron Yu, SFASA past president/Gilead Sciences) investigated teenagers’ daily lives before and during distance learning. The data showed an increase in social media app usage, hours of sleep, and time spent with family and a decrease in time spent on homework, time spent with friends, motivation to do homework/classwork, and stress levels.

Anwen Huang (11th grader, Mentor: Li Zhang, SFASA director of public relations/University of California at San Francisco) presented on the impact of the COVID-19 pandemic on product purchases. She found that purchase frequency had a statistically significant change during shelter-in-place compared to before the pandemic.

Vivian Wang (10th grader, Mentor: Jerry Ping, AbbVie) was interested in a pandemic’s impact on social relationships. She concluded there was a decrease in students’ time spent with friends during shelter-in-place. In particular, younger students weren’t able to make new friends. As expected, there was an increase in time spent and closeness with family.

Aayushi Agrawal (11th grader, Mentor: Cristina Tortora, SFASA vice president/San Jose State University) used US Census data to assess the economic impact of COVID-19 on minorities and noticed a greatly increased education gap, increased unemployment among Asians in lower education levels, and increased gap in unemployment between men and women.

All students were self-motivated and contacted their mentors spontaneously to discuss questions they had. The mentors were impressed by what the students accomplished during the two-month summer break. Wang said, “Through this project, I was able to learn a lot about data collection, data



This year’s program began with a virtual kick-off meeting on June 4, during which students were introduced to the program and assigned mentors. Working with their respective mentors, the students brainstormed topics for their projects. In the week that followed, students and their mentors worked together to finalize their project topics, study design, and data sources by group.

Over the summer, students worked on their projects and had group meetings every few weeks. All projects were survey-based. Students designed their own surveys and collected the data through Google forms with the guidance of their mentors. The students were able to use Excel to perform the data analysis, and most of them performed formal statistical hypothesis testing. A video conference was held August 9 to share the final presentations. It was open to all SFASA members and attracted around 30 attendees.

Elaina Li (7th grader, Mentor: Tao He, SFASA president/San Francisco State University) and Avelyn

handling, data analysis, and effective presentation methods. ... I had a good experience and gained a lot from participating in this summer program!”

With the guidance of their mentors, students were able to learn new statistical techniques. Liang said, “Throughout this project, I learned more about how statistics work and how to analyze the data. My mentors taught me many components of statistics such as the usage of paired t-tests, variance,  $p$ -values, and how to quantify data. I felt that this experience made me more interested in this field of study ...” Agrawal added, “Having taken AP Statistics prior to this project, I had already learnt many of the fundamentals of statistics, but I was given the opportunity to apply what I had learnt to a real-life scenario that I was interested in.”

This project also gave students a new view of the use of statistics in their lives. “After completing this SFASA project, I realized that statistics is so close to real life, way beyond placing bets on roulette wheels, poker tables, sports games, or predicting the weather; it touches so many aspects of life,” said Angela Zhang. “From this project, it has taught me to understand how to transform qualitative information from our daily lives into quantitative data to be analyzed by statistics,” she continued.

Both collaboration and mentorship had a significant impact on the students. Li said, “This summer project was unique and meaningful because we would not usually do such statistical projects at school. It was not only a great training, but also a collaborative experience. I am grateful for this opportunity to participate in this project, which introduced me to new domains related to statistics and the art of collaboration.”

Huang said, “Along the way, I learned many important things about conducting studies and got to experience hands-on what it was like to complete a study from start to finish. While I did encounter some hurdles along the way, my mentor was always there to help me overcome them, and through this process of revisions and editing, I was able to present a high-quality project during the final presentation seminar. This experience is unique in its personal one-on-one mentorship and a valuable opportunity for anyone interested in exploring the statistical field.” ■



## NC ASA Continues Webinar Series on Statistics and Data Science

The North Carolina Chapter (NC ASA) launched a webinar series on statistics and data science in 2019. The series was developed based on the feedback received on the NC ASA’s 2018 statisticians’ interest survey to meet the professional development needs of our community. The series continues in 2020 with webinars featured on Bayesian statistics, data science, and machine learning.

There have been three webinars this year so far, all of which can be found on the NC ASA YouTube channel at [bit.ly/3iXvrYV](https://bit.ly/3iXvrYV).

- **Essential Bayes: Paradigm, Techniques, and Software**, presented by Fang Chen of SAS ([bit.ly/3cua4vZ](https://bit.ly/3cua4vZ))
- **Harnessing the Human Visual System for Effective Visualization**, presented by Christopher Healey of North Carolina State University ([bit.ly/363et0n](https://bit.ly/363et0n))
- **Project Cycles, Career Path, Soft Skills & Pitfalls in Data Science**, presented by Ming Li of Amazon ([bit.ly/2G38Coo](https://bit.ly/2G38Coo)) ■

# sectionnews

## Survey Research Methods

SRMS had a successful virtual business meeting during JSM on August 5. We thanked outgoing officers Kennon Copeland (past chair), Darcy Steeg Morris (treasurer), James Wagner (education officer), Jeff Gonzalez (program chair), Steven Pedlow (publications officer), and Jamie Ridenhour (Council of Sections representative) while welcoming incoming officers Jean Opsomer (chair-elect), Jessica Kohlschmidt (treasurer), Daniell Toth (education officer), Jana Asher (program chair-elect), Dan Liao (publications officer), and Stas Kolenikov (Council of Sections representative).

Volunteers are needed to run for open positions during the 2021 election. Those interested should email Jean Opsomer at [JeanOpsomer@westat.com](mailto:JeanOpsomer@westat.com).

SRMS finances show our balance is in the recommended range of 2–3 times our annual expenses. \$3 of our \$8 dues provides access to the *Journal of Survey Statistics and Methodology (JSSAM)* for all SRMS members.

The ASA launched section awards for longtime service to the section. SRMS (volunteer) webmaster, Pushpal Mukophadhyay, was given our first SRMS award for his outstanding work on the SRMS website, including our proceedings website at [www.asasrms.org/Proceedings/index.html](http://www.asasrms.org/Proceedings/index.html) (all proceedings 1958–2019).

We also congratulated the five SRMS members who are among the newest ASA Fellows—

Rebecca R. Andridge, Laura Lee Johnson, Rochelle W. Martinez, Matthias Schonlau, and Zhengyuan Zhu—as well as the Washington Statistical Society Student Travel Award winner, Aaron Williams of Georgetown.

## Coming Up

- BigSurv20—virtual sessions throughout November on Fridays
- Webinars on respondent-driven sampling given by Krista Gile and weighting given by David Haziza

## JSM 2021 Topic-Contributed Session Proposals

JSM 2020 was virtually just last month, but it is time to organize your potential JSM 2021 topic-contributed session; proposals can be submitted online from mid-November until early December.

Topic-contributed sessions include papers (five total speakers with 20 minutes each, at least three presenters and no more than two discussants), panels (3–6 panelists providing commentary about a topic), and posters (10–15 participants with posters addressing a common topic).

A topic-contributed session proposal includes a session title, general description of the session, list of participants, and tentative talk titles.

If you are interested in organizing a topic-contributed session, select a session topic and solicit potential speakers. Once you have a sufficient number of committed speakers, you can submit

your proposal online at [www2.amstat.org/meetings/jsm/2021](http://www2.amstat.org/meetings/jsm/2021).

## JSM 2021 Student Travel Awards

SRMS offers student travel awards for students in any terminal degree program (bachelor's, master's, or doctoral) in survey methodology or a survey research discipline. Support is offered for student attendance at the Joint Statistical Meetings, to be held August 7–12 in Seattle, Washington. Preference is given to students presenting a paper or poster at the conference.

In addition to a short essay and college transcripts, applications must be supported by a current member of SRMS (with a letter of recommendation).

Typically, awards up to \$825 are given, which provides \$800 for JSM expenses and \$25 for ASA student membership (student membership in SRMS is free).

Award recipients are expected to attend JSM sessions and the SRMS business meeting/mixer on Wednesday night to be recognized.

Previous SRMS student travel award winners and SRMS student paper competition winners are not eligible for this award.

Application forms are available at [www.asasrms.org/travelapp\\_2021.pdf](http://www.asasrms.org/travelapp_2021.pdf).

The deadline for applications is December 18. Contact Darcy Steeg Morris at [darcy.steeg.morris@census.gov](mailto:darcy.steeg.morris@census.gov) or (301) 763-3989 with questions.

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Applications are invited for tenure-track appointments as Full/Associate/Assistant Research Fellows (equivalent to Full/Associate/Assistant Professors in Universities) in the Institute of Statistical Science, Academia Sinica, to commence on August 1, 2021 or as soon as possible thereafter. Applicants should possess a Ph.D. degree in Statistics, Biostatistics, Computer Science, Data Science or related areas, and should submit: (1) a cover letter, (2) an up-to-date curriculum vita, (3) a detailed publication list, (4) a research proposal, (5) three letters of recommendation, (6) representative publications and/or technical reports and (7) advisers' names of master and PhD degrees. Additional supporting materials such as transcripts for new Ph.D. degree recipients may also be included. Electronic submissions are encouraged. Applications should be submitted to

Dr. Henghsiu Tsai  
Chair of the Search Committee  
Institute of Statistical Science,  
Academia Sinica  
128 Sec. 2 Academia Road, Taipei  
11529, Taiwan, R.O.C.  
Fax: +886-2-27886833  
E-mail: [recruit@stat.sinica.edu.tw](mailto:recruit@stat.sinica.edu.tw)

Application materials should be received by **December 27, 2020** for consideration, but early submissions are encouraged.

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.

Listings are shown alphabetically by state, followed by international listings. Vacancy listings may include the institutional name and address or be identified by number, as desired.

Professional Opportunities vacancies also will be published on the ASA's website ([www.amstat.org](http://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.

These listings and additional information about the 65-word ads can be found at [ww2.amstat.org/ads](http://ww2.amstat.org/ads).

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>.

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## Illinois

■ The Department of Statistics at Northwestern University invites applications for a non-tenure track assistant professor of instruction in statistics position beginning fall 2021. This is a full-time benefits eligible position. Applicants should have an earned doctorate in statistics or a related field. Please apply at [www.statistics.northwestern.edu/about/faculty-search.html](http://www.statistics.northwestern.edu/about/faculty-search.html) including a cover letter, curriculum vitae, teaching/research statement, and three reference letters. Questions to Kisa Kowal at: [k-kowal@northwestern.edu](mailto:k-kowal@northwestern.edu). Northwestern University is an equal opportunity, affirmative action employer and does not discriminate against qualified individuals on the basis of race, color, religion, national origin, sex, pregnancy, sexual orientation, gender identity, gender expression, parental status, marital status, age, disability, citizenship status, veteran status, genetic information, or any other protected class. Individuals from all diverse backgrounds are encouraged to apply. Hiring is contingent upon eligibility to work in the United States. For more information, please see the University's Policy on Discrimination and Harassment at [www.northwestern.edu/equity/documents/discrimination-harassment-policy-resources-procedures-final.pdf](http://www.northwestern.edu/equity/documents/discrimination-harassment-policy-resources-procedures-final.pdf).

## New Mexico

■ UNM's Clinical and Translational Science Center (CTSC) seeks a non-clinical, PhD-level staff biostatistician to support clinical and translational research. The biostatistician will provide biostatistical support to researchers and ongoing research programs and may also develop their own program in methodological research or biostatistics or participate in extramural grant submissions and research programs. Apply: [www.Click2Apply.net/6yvvt4tyywgntzcb](http://www.Click2Apply.net/6yvvt4tyywgntzcb). University of New Mexico is an EOE. ■

## Statistical Career Opportunities

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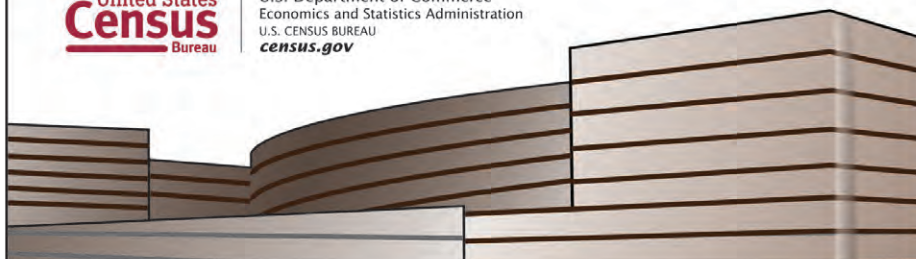
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### **Kristen Olsen** • @olson\_km

Erica Groshen's **#JSM2020** talk is great. Important things to do: Actually cite data from a federal stats agency if you use them! Encourage survey participation. Engage with stats agencies to help them improve federal statistics. Call the agencies when you have [questions] re: data.

### **Simon Vandekar** • @VandyAtVandy

Shout out to **@AmstatNews** for somehow creating an online platform for **#JSM2020** that recreates the in-person gestalt. I was pleasantly surprised to log-in and find statistical art and guided meditation!

### **Sharon Caslin** • @Sharon\_S\_Caslin

Just finished presenting at **#JSM2020**!! THIS baby statistician was nervous, but I pulled through! The other presentations were FAB.

### **Mandy Mejia, PhD** • @mandyfmejia

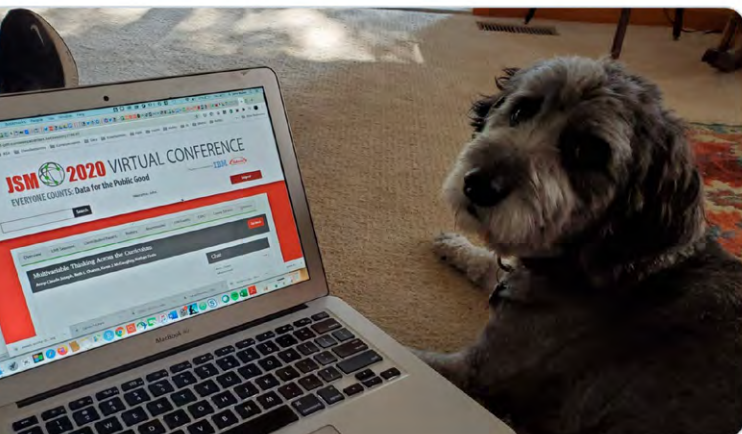
Well **#JSM2020**, it's been fun. Not quite the same as seeing all 5000 of you in real life, but pretty good. Thanks for some awesome talks, some good conversations, and some long overdue happy hours with old friends.

### **John Bailer** • @john\_bailer

Getting ready for my last day of **#JSM2020**. I have a great seat for the morning session and one of my best friends joined me. Kudos to **@AmstatNews** for providing an outstanding virtual conference in record time!

### **Susana Cramb** • @SusannaCramb

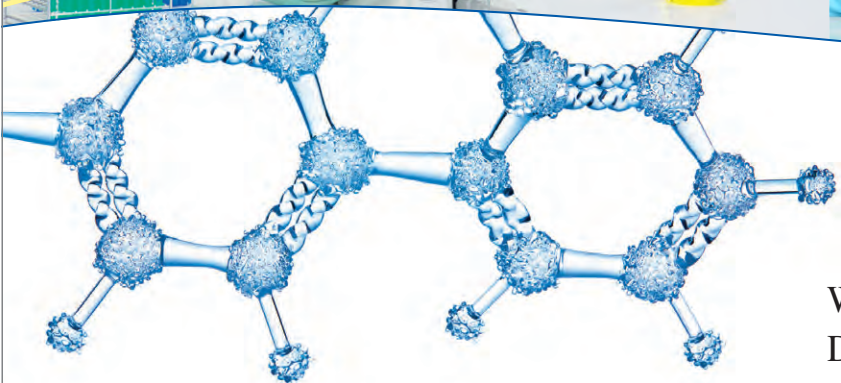
It's early and cold (by Brisbane standards). But it is such a joy to be participating in the **#JSM2020** session "Advances in Disease Mapping"! Such interesting work being presented! Thanks **@JakobDambon!** **#DiseaseMapping**



### NEXT MONTH :

Tell us! What would your statistics band name be?

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Ed Hutchins, Cree Product Engineering Manager



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