COVID-19
ASA MEMBERS SHOW LEADERSHIP DURING CRISIS

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AP Stats Learning Community Weighs in on COVID-19
Teacher Resources for the Digital Classroom
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Semiparametric proportional hazards model for interval-censored data.

Recent SAS/STAT ADDITIONS

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Fast quantile process regression.

Cause-specific proportional hazards analysis for competing-risks data.

Variance estimation by the bootstrap method.

support.sas.com/statistics
Teleworking Tips Before, During, and After a Pandemic

STATr@k

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

STATS4GOOD

Data for Good Takes on the COVID-19 Pandemic

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EDITOR’S NOTE:
Due to COVID-19, two ASA conferences, SDSS and JSM, are going virtual. This issue, which normally highlights JSM events, has been shortened to give you the most up-to-date information. Please check event websites often for updates.

#LeadWithStatistics: A Data Ethics Call to Action

LeadWithStatistics was the challenge and opportunity delivered to us by Lisa LaVange during her JSM 2018 president’s address. In this column, I want to share some thoughts about data ethics and how it is affecting our community.

For more than 25 years, annual ethics training has been part of my longtime US federal government employment. Most of these classes covered topics such as conflicts of interest, taking outside employment, accepting gifts, and working after government service. There is even a government office dedicated to ethics called (not surprisingly) the Office of Government Ethics (www.oge.gov).

The type of ethical behavior outlined by government offices is directed by regulations and legal codes. Although this is important, I believe we need to also work with colleagues and stakeholders on data ethics education.

Encyclopædia Britannica offers this definition: “Ethics, also called moral philosophy, the discipline concerned with what is morally good and bad and morally right and wrong. The term is also applied to any system of theory of moral values or principles.”

The set of laws or regulations provided by government offices to their employees does not suffice as ethical guidelines. Ethical guidelines are a set of moral principles that guide our behavior, which in turn depends on our cultural and religious beliefs and demographic characteristics such as age, gender, and education (http://manualmachine.mit.edu). We need the same set of principles for data ethics.

My formal data ethics journey began at the 2019 Conference on Statistical Practice held in New Orleans, where I had the honor of chairing a panel session on ethics. This session emerged from an abstract submitted by ASA member Mary Gray of American University. David Corliss—author of the Amstat News Stats4Good column—and Juan Lavista Ferres from Microsoft joined her for a discussion about the risk of algorithms used by data scientists, along with the legal and ethical implications that result.

This panel discussion delved into aspects of ethics I had not considered. Panel members also gave numerous examples of models that have learned biases inherent in the data used to build them (bit.ly/2x6H1Tb). Mary gave a great talk on the COMPAS (Correctional Offender Management Profiling for Alternative Sanctions) tool, which uses a black-box proprietary model to highlight potential areas where crimes will take place, provide information or recommendations to use in sentencing, and predict the risk of recidivism (bit.ly/3476GC3).

For more insights into black-box algorithms and the need for interpretable models, I encourage you to watch the ASA Government Statistics and Social Statistics sections’ virtual workshop given by Cynthia Rudin of Duke University at bit.ly/3dweNdh.

The ASA Ethical Guidelines for Statistical Practice (bit.ly/ASA4Ethics) are essential to our work and should inform our interactions with colleagues and stakeholders. The ASA Committee on Professional Ethics (COPE), whose charge is to maintain and promulgate the set of ASA ethical guidelines, has developed resources to help with educating people about the guidelines.

COPE Chair Michael B. Hayes has this to say about a call for action:

The Committee on Professional Ethics reviews and revises the ASA’s Ethical Guidelines for Statistical Practice every five years so they remain current and relevant for our members and for the broader statistical community. In preparation for the next revision in 2021, the committee has created a discussion board for ASA members to submit suggestions. If you would like to comment, you may do so at bit.ly/ASA-Ethics.

The CSP 2019 panel made me realize that, although I had substantial experience with professional codes of ethics, my knowledge was incomplete. This panel discussion delved into aspects of ethics I had not considered. Panel members also gave numerous examples of models that have learned biases inherent in the data used to build them (bit.ly/2x6H1Tb). Mary gave a great talk on the COMPAS (Correctional Offender Management Profiling for Alternative Sanctions) tool, which uses a black-box proprietary model to highlight potential areas where crimes will take place, provide information or recommendations to use in sentencing, and predict the risk of recidivism (bit.ly/3476GC3).

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Data Ethics Principles

During talks on data ethics, ASA President Wendy Martinez asked attendees to rank data ethics principles. The principle deemed most important in every instance was transparency. What data ethics principle is most important to you? Take a short survey at www.surveymonkey.com/r/ASA-DataEthics and let us know your thoughts.

This is a sample of existing data ethics resources:

- UK Government: bit.ly/2Rv7Xin
- Magna Carta for Data: http://magnacartafordata.org
- DataEthics: https://dataethics.eu
- Royal Statistical Society Data Manifesto: bit.ly/3b95ulh

Join the conversation!

Rochelle E. Tractenberg of Georgetown University has written several papers about higher education and how to incorporate ethics throughout one's career (https://georgetown.academia.edu/rochelle-tractenberg). One of these papers includes a description and cross-walk of two sets of guidelines—one from the Association of Computing Machinery (ACM) and our very own ASA code of ethics. She provided the following content to this column:

National Academy of Sciences (2018) Recommendation 2.5: The data science community should adopt a code of ethics; such a code should be affirmed by members of professional societies, included in professional development programs and curricula, and conveyed through educational programs. The code should be reevaluated often in light of new developments (bit.ly/2CyXm).

Data science arises from two disciplines with long-standing commitments to ethical practice: computing and statistics. Ethical guidelines have been developed over several decades to support ethical professional practice with—as well as the application of—tools, techniques, and methods from both statistics (ASA 2018) and computing (Association of Computing Machinery, ACM, 2018). Both the ASA (representing roughly 18,000 practitioners worldwide) and the ACM (representing roughly 100,000 computing professionals worldwide) assert that their ethical practice guidance should pertain to members and non-members alike who utilize their methods and techniques. Although neither group specifies that their ethical guidance is relevant for data science per se, examination of the concordance in their guidance is a natural first step for describing “ethical data science.” As they are representative of essential constituent disciplines for data science, Table 1 in a white paper published as part of an Open Science Framework project (https://osf.io/repints/coxov/vp/75p) explores the thematic alignment (ie., concordance) between their two ethical guidance documents (as of 2018).

A three-year grant is in review at NSF that seeks (in part) independent examination of the concordance of the ASA and ACM ethical guidance. The purpose is not to influence the content of either set of ethical practice guidelines; if each organization acknowledges the relevance of their and the other organization’s ethical guidance, together, for defining ethical data science, it would accomplish NAS Recommendation 2.5.

We have made important contributions, and it is critical that we continue to ensure the ethical practice of data science. I encourage you to read the Ethical Guidelines for Statistical Practice and provide comments to the committee about potential revisions and engage your colleagues in discussion about data ethics. We can #LeadWithStatistics!

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Significance Special Issue Celebrates Florence Nightingale

In its April 2020 issue, Significance celebrates the bicentenary of the birth of Florence Nightingale with a special collection of articles about the renowned nurse, statistician, and reformer.

Lynn McDonald, editor of Nightingale’s collected works, sorts fact from fiction with her article that explains what Nightingale did and did not do as a statistician (bit.ly/3BdoGh3). Digital Victorianist and print media scholar Alison Hedley takes a close look at Nightingale’s famous polar area diagram (bit.ly/2y2dFLw), helping readers understand not only why the graphic is still striking, but also why it was so striking at the time it was created.

Altea Lorenzo-Arribas and Pilar Cachetiro display and discuss the map they created of Nightingale’s social network (bit.ly/34zIEB9), which was put together using the vast archive of papers and correspondence she left behind.

The magazine also features interviews with what it calls “Modern Nightingales”: five statisticians keeping the spirit of Florence Nightingale alive (bit.ly/38x2DQDu). Plus, this issue includes a specially designed cover (bit.ly/3a1E9YW) by artist and data storyteller RJ Andrews, paying tribute to Nightingale’s mission and vision.

Access the digital version of Significance through the ASA or RSS member portals, or download and read the magazine on the go with our iOS and Android apps (bit.ly/2BHaJvY).

Significance is online at www.significancemagazine.com.

Florence Nightingale Turns 200

To the tune of Julie Gold’s Grammy-winning song “From a Distance,” a No. 2 hit for Bette Midler during the first Gulf War.

This new lyric honors the approaching bicentennial of the birth of Florence Nightingale, adapting her quote, “To understand God’s thoughts, we must study statistics, for these are the measure of His purpose.”

With statistics, many soldiers were saved in the Crimean War.

With statistics, Florence Nightingale found what made the death rate soar.

With statistics, Florence graphed the data in innovative ways:

A rose diagram, circular histogram, a polar area display.

With statistics, uncertainty was found to have caused those extra deaths.

With statistics, Florence led reform to cheap ativan no prescription implement what was best.

With statistics, she founded modern nursing with brilliance and compassion: She gave herself to the cause of health, she took bold action.

God is teaching us, God is teaching us, God is teaching us, God is teaching us through statistics.

With statistics, England and India were healthier places to live.

Oh, statistics shone like the lamp Florence brought from bed to bed.

With statistics, she set an example of vision and of strength:

More than pie charts, her mind and heart would light and lead the way.

Lyric ©2017 Lawrence Mark Lesser

“Florence: A Statistics Song”
ASA Launches Free Virtual Undergraduate Career Fair

Spring is usually the time of year when employers engage in on-campus career fairs nationwide. However, due to the COVID-19 pandemic, bachelor’s degree candidates have had to suddenly depart school and are not able to access this resource. In light of this, the ASA has created a virtual career fair for students and employers.

The ASA Virtual Undergraduate Career Fair will help undergraduates prepare to transition from college graduate to an early-career professional. Tips, tricks, and don’ts for developing a résumé and cover letter, as well as putting your best foot forward during interviews, are a few features of the program.

Launched in April and running through mid-June, the ASA Virtual Career Fair is available to upcoming and recent graduates from programs in academic, bachelor’s degree candidates have had to suddenly depart school and are not able to access this resource. In light of this, the ASA has created a virtual career fair for students and employers. The ASA Virtual Undergraduate Career Fair will help undergraduates prepare to transition from college graduate to an early-career professional. Tips, tricks, and don’ts for developing a résumé and cover letter, as well as putting your best foot forward during interviews, are a few features of the program.

In addition, an online résumé repository is available. The repository can be used by participants for résumé review and feedback by established ASA members and is accessible to employers who may be seeking bachelor’s degree candidates for open positions.

“Theses are unprecedented times, so it is more important than ever to support our student members,” said ASA Director of Strategic Initiatives and Outreach Donna LaLonde. “The ASA Virtual Career Fair is just one way we can work together to meet our mission of promoting the practice and profession of statistics. It is also a great opportunity for young grads to expand and nurture their network in the statistical community.”

**Fees:** The ASA Virtual Career Fair is free to undergraduate students.

**To Register:** wv2.amstat.org/VirtualCareerService

Learn to make data-driven decisions with a Master of Applied Statistics, offered online through Penn State World Campus. A strong foundation in data analysis can help advance your career in almost any field.

Help solve real-world problems

**Employer Matching Gift Programs** are a great way to support charities. Many employers sponsor matching gift programs and will match donations their employees make. This can double the impact of your donation. Typically, all it takes is for you to submit a matching gift request form to your employer once you have made your donation. Companies usually match at a 1:1 ratio, but some will match at a 2:1, 3:1, or even a 4:1 ratio. There is an employer matching gift program “look up” tool located on our donation page at www.amstat.org/givemoney. You can write in your company’s name to find out if they have a program in place, what the match ratio is, and what you need to do to submit a request form.

If you would like more information or have questions, please let me know. I can be reached at amanda@amstat.org. Thank you for your membership and support of the ASA!
Virtual Career Advice Offered to Future Academics

Over the past several months, the National Institute of Statistical Sciences (NISS) has been hosting a series of virtual career fairs with experienced senior statisticians who represent a variety of research, business, health care, government, and other sectors as speakers. NISS is making the recordings available to help students consider their career options and advisers guide their students. The recordings are also of value to individuals who are considering a career change across different employment sectors.

The recordings, slides, and links can be found at www.niss.org/meet-recordings.

Recent NISS Virtual Career Fairs

- Advice and Insights Offered During Third NISS Industry Career Fair: bit.ly/3eiymcN
- Opportunities in Banking and Marketing Sectors Highlighted in Virtual Career Fair: bit.ly/34xJJt2
- NISS Virtual Career Fair for NISS Affiliates: bit.ly/2XyTW7e

MORE ONLINE
Visit the NISS Meet-Up website at www.niss.org/meet-recordings to view the recordings of all NISS webinars.

Foundations of Data Science Conference Scheduled for October

The Association for Computing Machinery and Institute of Mathematical Statistics have come together to launch an annual conference series on the foundations of data science. The conference will address foundational data science challenges in prediction, inference, fairness, ethics, and the future of data science and feature tutorials, keynotes, and a fully refereed conference proceedings.

The 2020 event takes place October 18–20 in Seattle, Washington. The paper submission deadline has been extended to May 15.

Visit the conference website at bit.ly/2VygCU3 for details.

CHANCE HIGHLIGHTS

Stylometry, Machine Learning Feature in Latest Issue of CHANCE

Amanda Peterson-Plunkett, CHANCE Executive Editor

In 1999, CHANCE (Vol. 12, No. 2) included an article analyzing the writings of American folk hero and politician Davy Crockett, considering whether he actually wrote the three books attributed to him. Four years later, in 2003, a special issue of CHANCE (Vol. 16, No. 2) focused on stylometry—the statistical analysis of literary style. In this 2020 issue, David Holmes—a guest editor of the stylometry special issue—and Ferris Samara—a George Mason University OSCAR scholarship recipient—take a fresh look at the writings of Crockett using the latest advances in stylometry. They consider Crockett’s ghostwriters and share their discoveries in “Was the Wild Frontiersman a Prolific Penman? A Stylometric Investigation into the Works of Davy Crockett.”

Also, in this latest issue, David Trott explains adversarial machine learning and the challenges practitioners face in combating a range of attacks in “Deceiving Machines: Sabotaging Machine Learning.” Many in the CHANCE community have researched, built, and applied machine learning models to exciting applications, but how many of us have considered whether the models are vulnerable to attack? Attacks include poisoning training data, evading model prediction, exploiting model access to replicate functionality (e.g., model-stealing), and extracting data. As machine learning continues to advance, model security is a concern for both the public and private sectors.

In addition to the above features, CHANCE editors had an opportunity to chat with Cynthia Rudin, a professor at Duke University and advocate of interpretable machine learning. In the interview, she shares her story of getting into the field, aspects of her current work in this area, and a view of what lies ahead in the next decade of statistics and machine learning. We enjoyed her insights and trust you will enjoy them, as well.

In other columns, Mary Gray discusses challenges faced by expert statistical witnesses attempting to make their work understandable to the courts in “The Odds of Justice,” Andrew Gelman and Alexey Guzey explain how prominent researchers can get away with misrepresenting data in “Ethics and Statistics,” and Justin Jacobs looks at whether “Three is Greater than Two” in his new column about statistics and sports, Beyond the Box Score.
ASA MEMBERS SHOW LEADERSHIP DURING CRISIS

Valerie Nirala, ASA Editor and Content Strategist

On January—when COVID-19 sprang up in China and the world seemingly began to transform daily—statisticians, biostatisticians, data scientists, and epidemiologists went to work turning data into information people could use. Following are some of the ASA members who forged ahead during the crisis and provided direction based on sound statistical practice.

Bhramar Mukherjee of the University of Michigan is part of the COV-IND-19 Study Group, an interdisciplinary group of scholars and data scientists who use data and modeling to generate timely reports and recommendations about COVID-19 in India. The group published an article, titled “Predictions and Role of Interventions for COVID-19 Outbreak in India,” (bit.ly/2YvQof) on March 21, four days before India Prime Minister Narendra Modi told everyone they could not leave their homes for three weeks. The article summarizes the group’s technical report (bit.ly/COV-IND-19_Report) and outlines the approach taken to answer the following three questions:

- What can India expect in the next few months?
- How will this affect the general public of India?
- How can the government and people of India prepare for this crisis?

From their predictive model, the group concluded it was “appropriate to adopt draconian measures” and act before the growth of COVID-19 infections in India started to accelerate. The media began quoting the group’s work shortly after the article was published, making it a pivotal piece in guiding the decision to shut down India. Mukherjee also appeared on Indian national television, and the group’s article showed up in such media outlets as the Economic Times, Reuters, Aljazeera, and Business Insider.

Also part of the COV-IND-19 Study Group are ASA members Debashree Ray of The Johns Hopkins University and Rupam Bhattacharyya, Lili Wang, Peter Song, and Veera Baladandayuthapani of the University of Michigan.

John Ioannidis of Stanford University also made headlines, appearing on CNN opposite Marc Lipsitch, a professor of epidemiology at Harvard, after publishing “A Fiasco in the Making? As the Coronavirus Pandemic Takes Hold, We Are Making Decisions Without Reliable Data” (bit.ly/3b7BHJY) on STAT. His article summarized his technical report (bit.ly/2XxQ1at), which maintained better data was needed to direct decisions about how to respond to COVID-19 and sparked abundant discussion among both statisticians and nonstatisticians.

A Teachable Moment

Sara Brown, Patrick Hopfenysperger, and Henry Krarendonk—authors of Focus on Statistics: Investigations for the Integration of Statistics into Grades 9–12 Mathematics Classrooms—have made available for free Investigation 12: Chances of Getting the Flu?

This investigation develops a probability distribution through the design and use of a simulation involving the spread of flu in an apartment building. It follows the four components of statistical problem-solving put forth in the Guidelines for Assessment and Instruction in Statistics Education (GAISE) Report: formulate a statistical question; design and implement a plan to collect data; analyze the data by measures and graphs; and interpret the results in the context of the original question.

Teachers can download the free investigation at bit.ly/2Y1Lndl.
of the University of California, Berkeley developed models with her team made up of students and post-docs to connect hospitals with supplies. Working with nonprofit organization Response4Life, Yu’s team collected information from federal, state, and local health agencies, as well as media reports, about shortages to craft data sets. The team then developed algorithms that Response4Life plans to use to build a platform that will connect suppliers and hospitals.

Susan Ellenberg of the University of Pennsylvania Perelman School of Medicine co-wrote a New York Times op-ed titled “The Coronavirus Is Here to Stay. So What Happens Next?” This piece explained why Americans should expect a roller coaster rather than a curve when it comes to the coronavirus. Referring to the 1918 influenza pandemic and 2003 SARS outbreak, the authors explain how the virus will likely come in waves as social distancing does its job. As more people distance themselves from others, fewer will develop immunity (if, in fact, you can develop immunity), so there will be subsequent rounds of infection with the need to practice social distancing. The authors do point to the upside, saying each resurgence of the virus will come more slowly and each round of social distancing will last for less time.

Christopher Bilder, who studies group—or pooled—testing and wrote “Group Testing for Identification” for Wiley StatsRef: Statistics Reference Online, has been explaining to the Twitterverse how this technique can be used to test for COVID-19 using less time and fewer resources.

A new book by Ron Fricker of Virginia Tech and Steve Rigdon of Saint Louis University, titled Monitoring the Health of Populations by Tracking Disease Outbreaks: Saving Humanity from the Next Plague (bit.ly/34ASulX), focuses on tracking and monitoring disease outbreaks, including COVID-19. “We were motivated to write the book because the work of public health officials often critically depends on the use of statistical methods to help discern whether an outbreak may be occurring and, if there is sufficient evidence of an outbreak, then to locate and track it,” said Fricker. “With the recent outbreaks of diseases such as swine and bird flu, Ebola, and COVID-19, the role that epidemiologists and biostatisticians play is more important than ever.”

If you are contributing to the COVID-19 dialog by providing sound data and statistical practices or know of other ASA members who are, email your story to Amstat News Managing Editor Megan Murphy at megan@amstat.org. SHARE YOUR STORY

Last but not least, Elizabeth Halloran of the University of Washington and Fred Hutchinson Cancer Center was a source for a New York Times piece, titled “How the Virus Got Out” (nyti.ms/2yfzBJY). This is an interactive visualization showing why stopping travel from China did not stop COVID-19 from spreading. It illustrates exponential growth and how not taking immediate measures allowed the virus to spread.
How has COVID-19 affected your job the most?

Forrester: Everything has gone digital. We can still have web chats and talk via technology but we are not able to talk face-to-face, so questions can take longer to get answered. Testing security has also been something I have been trying to wrap my head around.

Maddox: My job has mostly been affected by the need to connect with teachers digitally and provide support to them on digital resources. Also, the AP Statistics mock exam, an annual event for our PLC [professional learning community], will likely have to be cancelled. This will necessitate a transition for our members to utilize the mock exam with their students in a way that is not a large gathering of students working under College Board test circumstances.

Tolbert: Missing the face-to-face interaction and the hands-on activities we had grown to love from Stats Medic.

Wallace: I am no longer seeing my students face-to-face, and I do not know when (if ever) I will see them again in a traditional classroom setting.

Dillon: Not being able to be in the classroom with my students or in the hall with my peers each day.

Abney: Transitioning my classes to distance learning.

Franklin: Mentoring K–12 teachers to deliver statistics curriculum as online remote instruction.

Case: UGA [University of Georgia] has always offered online classes in the summers, but I’ve never requested to teach them because, for me, face-to-face interactions with students have always been the most rewarding. COVID-19 got me interested in online teaching practically overnight!
What do you see as the biggest challenges for both students and teachers as schools close throughout the country?

Forrester: Communication. Some homes do not have internet access. Some students are also taking this as an extended break and not completing work by deadlines. They think they can just complete it when they want and still get full credit.

Maxwell: Relationships that were formed with students to help them get through tough times are being challenged; reaching out to them is more difficult now due to time constraints for me. Time challenges for both teachers and students in completing the assignments, knowing how much is too much to assign or how much is too little.

Maddox: The distance teaching and learning is quite the challenge. Too many students still are without internet access, and then some students lack the motivation to come to the digital classroom. Working from home is quite distracting with other family members nearby, as well as other entertainment options. Possibly the biggest challenge is to engage students in conceptual understanding through discourse. It is also necessary for teachers to create almost all new resources for their students. This puts them under an incredible pressure to produce and provide feedback and keep track of every student, even though not physically present.

Assessments present a great challenge, too, in that test security and authenticity of student answers cannot be guaranteed.

Tolbert: The unknown. I am now teaching as if we will not return, so if we do, it will be yet another difficult adjustment.

Wallace: The biggest challenge is checking in with the students and making sure they are understanding the material, as well as addressing any misconceptions they may have.

Dillon: The students will not have learned the material expected for the next course. Not only does this impact the student, but it impacts the teachers teaching those courses. The teachers will need to be prepared to teach prior concepts before they can teach the current topics.

Abney: Maintaining relationships and a sense of connection; teachers sorting through the wealth of resources that have become available; students and teachers balancing school/home responsibilities and leisure activities in the same environment.

Franklin: Simply figuring out what is realistically possible. Will students take this type of instruction seriously? How do you carry out a secure assessment? How do you ensure all students have equitable instruction; for example, technology needs. How do you change from an active group learning environment that is in-class pedagogy in a few short days to remote online?

Case: The thing that keeps me up at night isn’t the loss of instructional time. As much I value statistics education, I’m much more worried about the social role that schools play for many students. It’s been inspiring to see how teachers and the community have pulled together to continue offering meals and other services for students.

How have teachers come together to support each other in this time of crisis?

Maxwell: Many teachers have shared resources such as documents, videos, websites, etc. It has actually been a great time of coming together for teachers.

Maddox: True collaboration can be a great support for teachers. Several groups of teachers who have the same course preparation have divided up the pacing guide to distribute the load of preparing videos and gathering supportive websites.

Tolbert: In amazing ways! Sharing resources, opening up for pay resources at no cost, having happy hours at the end of a long teaching day, walking together when possible (6 feet apart).

Wallace: My coworkers and I are working more collaboratively in content-specific areas to share the burden of creating videos and online lectures. We are also helping each other out as we learn different types of technology to utilize in these “digital learning days.”

Franklin: Watching my AP Stat Learning Community, they are emailing and talking to each other daily, as well as sharing their resources and sharing how they are handling the different logistical issues that are arising. This LC [learning community] for 13 school districts has an established bond that is a core support network in this time of crisis.

Case: Teachers are freely sharing all the instructional resources they’ve created, but that’s not unique to this crisis! It’s also so helpful to have friends and colleagues who can remind us that we’re doing our best and our best will be enough. No one signed up for this, but we all want to do right by our students, even if perfectionism has to go by the wayside.
What tools are you using to deliver online instruction?

Forrester: Google Classroom, Albert, AP Classroom, Annote for when recording videos and working through problems, Stats Medic.

Maxwell: Khan Academy, Screencast-O-Matic, Schoology, Delta Math.

Maddox: Since I support teachers in their classroom, I have switched to utilizing Google Hangouts and Zoom to deliver the online instruction.

Tolbert: A document camera and my techie son for video editing.

Wallace: Mostly creating YouTube videos that go along with the content that I would use in my classroom.

Dillon: Using Loom to make videos of my existing PowerPoint; using Weebly along with itslearning as a platform for getting my lessons to students

Abney: Desmos.

Case: At UGA, we’re losing two weeks of classes right around the time we would have been starting projects. In my statistics for teachers class, pre-service and in-service teachers will have the option of using Census at School data for their data analysis projects. This allows them to complete the projects more quickly but it will also acquaint them with an amazing resource to use with their future students.

How are you going to modify preparing for the AP exam?

Forrester: Most of the material is going to have to be digital now. We will also not be able to do real-life practice tests. I can web cam them in and watch them take a practice test online.

Maxwell: I will review using mostly or only FRQs [free-response questions], since there will be no MC [multiple choice] on the exam. I still plan to use the Stats Medic Review Course to help me with that.

Tolbert: No quizzes, only test/summative assessments: focus on working together to learn and hoping the extra time not assessing will be better spent. Giving up on the cumulative testing and letting Stats Medic Review handle that component.

Wallace: I am going to collaborate with the AP Statistics PLC to determine the best way to modify preparation, but I think I will modify something about it.

Dillon: I will wait to hear from College Board to see what topics will be covered and then focus the majority of my review on those. I will adapt my reviews to include multiple choice (even though it’s not part of the exam) and free-response questions mostly from the topics on the new exam format as opposed to the entire curriculum. But I do plan to conduct my own assessment of my students’ knowledge of the entire course so they can actually see how much they know. Therefore, I will still incorporate material from the later topics that will not be covered on the shortened exam into some of our review days.

Abney: For the first time, I plan to use the Stats Medic Review Course.

What is your best tip for parents who are teaching their children at home?

Forrester: Reach out to teachers. A lot of the time, I don’t know the child is struggling until it is too late and then the parent loses their mind on me.

Maxwell: Be patient with the teachers and please ask us questions. We want to help and are just as overwhelmed as you and your child are.

Maddox: 1. Develop a schedule with your children to keep them in the school mode. Many school districts have created schedules similar to their regular bell schedule (though class periods are shorter) so students know when to go to each period and see each teacher. 2. Stay in touch with your children’s teachers to ensure they are understanding and completing assignments.

Tolbert: It’s not the parent’s job to do the teaching but to make sure the student has the tools needed to learn from his/her teacher. If s/he is not getting (or understanding) the resources being offered, contact the teacher to see what might be missing in the communication.

Wallace: Encourage your student to do everything their teacher asks of them.

Dillon: Help [your] student with time management. Set up a time and place in your house each day for them to do their school work—without distractions.

Abney: Ask to see what work your child has completed.

Case: Encourage your student to communicate with their teachers! Teachers are trying to figure out what works best, but many are only getting feedback from a small group of students.
If you are an administrator, how does your view of the COVID-19 disruption differ from a teacher’s?

Maddox: I am concerned about the workload on teachers now that they are responsible for an entirely new way to provide teaching and learning. I am also concerned that it will be even more difficult to continue a culture of student agency in developing and using conceptual understanding of mathematical and statistical ideas.

What advice do you have for students and parents, especially graduating students and their parents, about how to best prepare for life after Covid-19?

Abney: I believe we are all now much more appreciative of the time we do have together in the classroom. Keep using some of the new academic/connection tools you were forced to discover to enhance/improve your quality of learning.

Forrester: For students who end up going to college, at some point you may have to do an online course. And I can 100 percent guarantee that professors will not have anywhere near the level of grace that we, public educators, have. They will not contact your parent and they will not care if you have an excuse. Communication is key in making sure that everything runs smoothly on both ends. Professors do not know what you do not tell them, and the same goes the other way. This is a learning curve for all of us, so please be patient and just when you think you are going to bust, do what we do: take a lap and come back. We deal with these same issues on a daily basis. We are all in this together and we will make it work.

Maxwell: Always be prepared to “fend for yourself.” So many students are finally learning how to do that. As difficult as this time is, find ways to make positives of this crisis. Use this time to reflect about what should be life’s priorities and how you might want to use your talents to positively impact the future for your community and globally. Relearn how to appreciate the simple pleasures, slow down, and always remember we grow as individuals from challenging situations.

Case: Take some time to grieve your own losses. COVID-19 is affecting everyone in different ways, and even if you’re fortunate enough to stay healthy and safe, losing months of your high-school or college experience is a loss. It’s okay to be angry and sad. None of us would have chosen this experience, but like it or not, we’re living in an extraordinary moment in history. We should pay attention and learn what we can. As a statistician, I’m paying attention to the way statistical information is being communicated and how it’s being received by decision-makers and the public.

Dillon: It will be hard for this group of seniors (and their parents) to not be bitter and not feel as though they have been cheated. I am retiring this year after 35 years of teaching high-school math, 10 years teaching AP Statistics. Not exactly how I thought my career would end. But we all have to remember that before all of this is over, many people have lost and will lose so much more than time in a classroom. Once the shock, disbelief, and sadness have subsided, I will focus on the next chapter of my life and how much excitement it will bring. The same can be said for my students.

Maxwell: Always be prepared to “fend for yourself.” So many students are finally learning how to do that. As difficult as this time is, find ways to make positives of this crisis. Use this time to reflect about what should be life’s priorities and how you might want to use your talents to positively impact the future for your community and globally. Relearn how to appreciate the simple pleasures, slow down, and always remember we grow as individuals from challenging situations.

What’s Going On In This Graph?

www.nytimes.com/column/whats-going-on-in-this-graph

A partnership between the ASA and New York Times Learning Center that explores graphs, maps, and charts from the week’s news and invites students to discuss them live.

CAUSE Resources

www.causeresearch.org/cause/resources

Teacher resources organized by pedagogical method.

ASA Digital Classroom Community

bit.ly/ASADCC

As an immediate measure to connect educators who find themselves suddenly teaching online, the ASA created a community forum focused on sharing resources for the digital classroom.
Teleworking Tips Before, During, and After a Pandemic

Katharine Spain holds an MS in biostatistics from The University of North Carolina at Chapel Hill. She is a senior biostatistician at Rho and has been a full-time remote employee for the past seven years.

Remote employment continues to be increasingly popular, and with the COVID-19 pandemic closing offices around the globe, teleworking has become necessary for many. During this time of social distancing, it is important to find ways to extend the workplace community. Whether working from home is your standard or you are temporarily working from home due to COVID-19, here are tips for being satisfied as a remote employee when they are not working.

As a habit, at the beginning of each month, ensure those you work with know your standard working hours and expected response time to emails, voice mails, and instant message chats. Sharing an outlined work schedule also eliminates the fear of interrupting a remote employee when they are not working.

Practice Intentional Communication
It is imperative, especially at the beginning of remote employment, to practice intentional communication. This is the most essential aspect of remote work. Communicate boundaries and work habits so other employees feel confident when contacting you without face-to-face interaction.

If working from home is a temporary situation, it is still important to carve out a space to routinely work from, even if that space is the corner of a kitchen table. Having a designated workspace will create a boundary with any other people in the house to signal you are working when you are in that space and shouldn’t be disturbed.

Take an Active Role in Your Career Development
Without the daily face-to-face contact, you must advocate for yourself and express career aspirations and the potential for job growth. Schedule regular feedback sessions regarding your career trajectory with your manager so they are aware of opportunities you are interested in. When meeting, be specific about what you would like to work on, learn, etc. If possible, ask an in-office mentor who can act as a conduit of information for remote employees with regard to training and growth opportunities. This mentor can keep your interests and career aspirations in mind and alert you to any in-office chatter you may have missed.

Find Personal Connections with Your Coworkers
A key component in job satisfaction is feeling connected to your coworkers, so make sure you are also setting aside time to casually check in weekly or monthly. Learn about their families, hobbies, likes, and dislikes. Think of this as the equivalent to popping your head into someone’s office for a quick question that then leads to a personal chat. These personal interactions allow us to feel connected to our coworkers and lead to stronger work as a team.

When you feel invested in your teammates and vice versa, you are willing to go the extra mile, and this creates a more cohesive and productive team.

Taking this one step further, as an organization, consider sending out monthly emails of office information including new hires, employees leaving, and major business achievements. This will ensure those outside the office are receiving the same information as those in the office.

As a remote employee, it is also helpful to follow any company-wide forums to further connect you to the outside office and create a better time to chat. Screen sharing software allows employees, no matter their location, to virtually look over one another’s shoulders and assist with coding issues or review documents. Setting up a group chat with coworkers while on an external client call can allow discussions that may occur in a meeting room with the external client muted. Other technology tips when working from home include unplugging/covering your camera when not in use and muting your line as often as possible when on conference calls.

In these unprecedented times during which we find the entire family home while trying to work, acknowledge you may have background noise when you are presenting. All teleworkers are currently dealing with the same struggles and will be understanding of the situation.

Employers Can Help
While face-to-face time may be limited with remote employees, bringing remote employees into the office for onboarding will help the team put a face to a name and allow all team members to experience one another’s personalities. To ensure one-on-one time with each team member, divide the company-wide training among the team members. Once onboarding is complete, provide training documentation for the remote employee to reference once they are no longer in the office.

Also, consider hosting remote employee-specific meetings when able. This allows for more candid discussion among remote employees and remote employment-focused feedback.

Finally, when possible, host employer meet-ups in areas where remote employees are co-located.
Get Prepared to Get Involved

Normally, this column includes opportunities for getting involved—groups looking for volunteers, programs accepting applications, and so on. In this time of social distancing, now is a great time to focus on our collaborations. New resources are being added every day to support analytics across the miles. Use this time to make a new contact, attend a webinar, learn best practices for virtual communication. Reach out to that organization far away and the people you were hoping to meet someday. Check out their website, attend a webinar, send an email, and get involved in their important work. Always remember that collaboration is the life blood of scientific research. Use this time to make virtual connections with researchers outside your usual circle and make a difference for good.

So Many Opportunities

The American Statistical Association and its members have been quick to respond to this crisis in a number of ways. One is establishing an ASA community—COVID-19 Data, Statistics, Research, and Discussion (bit.ly/2RCr5ea)—to support coronavirus/COVID-19 research. Researchers can share their work and resources, collaborate, and ask questions. Other ASA sections and communities have been active in supporting research or addressing challenges raised by the pandemic, such as expanded teaching online. There are also many educational opportunities available. For example, the ASA has partnered with the University of Connecticut and others to sponsor a webinar series (bit.ly/2y8WHl1) on daily updates summarized by geographic area from many places around the world. An excellent source for US data is from The New York Times, which has tabulated confirmed cases and deaths by county and date (bit.ly/28W7W1H). These are just two of many data resources now online. Researchers investigating on a smaller geographic scale may find local data from reliable, official sources helpful.

In looking at the data, one concern discussed by subject matter experts is the under-reporting of cases, partly from incomplete testing and also due to COVID-19 often being asymptomatic and going undetected. These challenges have made fatalities the most reliable numbers. (Full disclosure: I am a statistician but not an epidemiologist.)

To track the spread of the pandemic, one method is to start with reported deaths for the raw data, divide by a reliably reported fatality rate (e.g., the value reported in The Lancet by Robert Verity et al.), and count back to the infection date. Plots of both cases and deaths often use a log scale on the vertical axis to reflect any interval of exponential growth.

Data for Good Takes on the COVID-19 Pandemic

F rom the very beginning of the COVID-19 pandemic, data and analysis have played a central role in understanding the crisis, informing health officials and hospitals, and driving data-driven decisions to address and mitigate the impact. It’s been all hands on deck for the D4G community, with everyone working together to make a difference.

COVID-19 Data Sources and Issues

Of course, analysis begins with the data. The Center for Systems Science and Engineering at the Johns Hopkins University has created a GitHub site to provide access to more than a dozen COVID-19 data sources, including a great wealth of international data. This site includes The Johns Hopkins database—the 2019 Novel Coronavirus COVID-19 (2019-nCoV) Data Repository (bit.ly/2R8y4p)—in daily updates summarized by geographic area from many places around the world. An excellent source for US data is from The New York Times, which has tabulated confirmed cases and deaths by county and date (bit.ly/28W7W1H). These are just two of many data resources now online. Researchers investigating on a smaller geographic scale may find local data from reliable, official sources helpful.

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Given we know so little about what the COVID-19 pandemic will look like in August, the ASA has determined the best option is to hold JSM virtually. At the time this issue went to print, the decision had just been made, but more information will be available in the coming weeks. What does this mean for you? First and foremost, JSM 2020 has not been cancelled. Information about how to access the wide variety of sessions and networking options will be communicated as soon as it is available. If you have been accepted onto the program, we hope you will still choose to participate. We will be in touch with details about how to do that within the coming weeks. If you registered when you submitted an abstract and no longer wish to participate, we will reach out to you soon with information about how to request a refund. The ASA staff and JSM program committee are working hard to transition JSM to a virtual event. Should you have any questions in the meantime, please feel free to send an email to meetings@amstat.org.

Registration Open for ECOTS 2020

CAUSE (Consortium for the Advancement of Undergraduate Statistics Education) will host eCOTS May 18–22. As always, the conference will be held virtually and include discussions about engaging students in the classroom. This year’s theme is “Engaging Everyone.” The conference will have two keynotes: “Engaging Everyone: Context, Communication, Connections, and Commitment,” given by Roxy Peck, professor emeritus at Cal Poly, San Luis Obispo, and “Using Data Effectively: Beyond Art and Science,” given by Hilary Parker, a data scientist at Stitch Fix. The conference will also include three workshops, 12 breakout sessions, four panel discussions, and posters and beyond to start and end the day. Additionally, the award winners for the Gapminder Dollar Street competition will be announced and present their activities during the conference.

Each day, participants will vote on the hot topic of the day, and discussions with the hot topic items selected will end the week on Friday. Participants can also attend one of the regional conferences that accompany the main conference. These regional conferences may occur online or in person later. See www.CAUSEweb.org/ecots for links to the program and conference registration.

Registration for the full week of virtual programming is $25, or $15 for those from a CAUSE member institution (free for graduate students, high-school teachers, and two-year college instructors). For more information, contact Megan Mocko at Megan.Mocko@warrington.ufl.edu.

Because of the effects—personally and professionally—of COVID-19, the new deadline for submissions to the Teaching Statistics special issue, “Teaching Data Science and Statistics: Senior School or Introductory Tertiary,” is July 25, 2020. Submissions can be made via ScholarOne by visiting the Teaching Statistics website at bit.ly/2K06kFr.

Special Issue of Teaching Statistics: New Submission Date
Helen MacGillivray, Teaching Statistics Editor

Spring Issue of Statistics Teacher Filled with Activities
Statistics Teacher, the online journal for grades K–12 educators, features articles about the 2020 Census, a free teaching resource, RStudio, and Yummy Math. This latest issue is a must-read for teachers and students looking for timely activities. Of special interest is Henry Kranendonk’s Teaching Module: People Count! (And Their Data Stories). In this module, students will develop, analyze, and redesign population projection models using past and present population totals by age groups to estimate future population estimates of various countries. Enjoy the latest issue at www.statisticsteacher.org.
Ralph D’Agostino stepped down from his role as editor of Statistics in Medicine (SIM) December 31, 2019. The major areas in which he excelled include being the lead biostatistician for the Framingham Heart Study, a biostatistical consultant to The New England Journal of Medicine, a member and consultant on federal drug advisory (FDA) committees, and a 52-year faculty member in mathematics and statistics at Boston University.

Of major importance, he became the lead editor of the popular Tutorials in Biostatistics portion of the journal in 1995, a post he held until December 2019. In the decade from 2010–2019, there have been 115 such tutorials, many created for both students and instructors. One informative example, which was not even labeled a tutorial, comes from a SIM paper by Timothy Heeren and D’Agostino titled “Robustness of the Two Independent Samples t-Test When Applied to Ordinal Scaled Data.” It had a huge impact on how service courses in both statistics and biostatistics were taught. The conventional wisdom in 1987, when there were small sample comparisons from two independent groups with respect to a discrete ordinal outcome, was to employ the Wilcoxon test, and students would be seriously locked on exams if they employed the t-test. Heeren and D’Agostino proved teachers wrong. The null properties held up exceedingly well when they compared the p-value obtained from the t-test to the maximum exact p-value obtained over all null distributions in their 2 by K table of outcomes. As a special case, they noted the t-test is more robust than Fisher’s exact conditional test for comparing two independent small sample binomials.

D’Agostino saw a huge expansion of SIM. The first volume in 1982 had four issues with 386 printed pages; the volume before he joined the team (1997) had 24 issues with 2,936 pages; and his last volume as an editor (2019) had 30 issues with 5,672 pages. As an author’s editor, D’Agostino personally read an incredible number of submissions to SIM and constructively weighed in on the review process. His presence was major, especially when the reviewers were in conflict. Most importantly, he left no stone unturned when it came to ensuring good science won out, even if it flew in the face of conventional wisdom.

D’Agostino has published 726 peer-reviewed papers (240 from 2010–2019), including 56 in SIM and 29 in The New England Journal of Medicine. His papers have been cited in Google Scholar more than 225,000 times and his H Index stands at 220, among the best numbers in any field. D’Agostino will turn 80 on August 12.
January 28, 2020, a webinar sponsored by the ASA Privacy and Confidentiality Committee was presented by Michael Hawes, senior adviser for the Data Access and Privacy, Research, and Methodology Directorate of the US Census Bureau, titled “Differential Privacy and the 2020 Decennial Census.” It was evident from the webinar that the Census Bureau has a commitment to privacy and confidentiality; it’s the law. All information collected by the Census Bureau is protected under the Title 13 of the US Code. For the Census Bureau, it is important to keep the public’s trust in an era where the Census Bureau is able to accurately reidentify those data subjects. The Census Bureau has committed to modernizing its disclosure control this tradeoff. The higher the measure, the more you favor accuracy over privacy protection. At the time of the webinar, the Census Bureau was about a year away from producing the first differentially private data products. Several policy issues remain to be decided upon, especially with regard to the exact privacy loss budget, which quantities that balance of privacy and accuracy. The bureau continues to evaluate their implementation of differential privacy to improve upon the accuracy and “fitness for use” of the resulting data, especially for smaller areas.

Will there be a measure of accuracy published?

One of the elegant aspects of differential privacy, compared with traditional disclosure avoidance methods, is you can be fully transparent about how the algorithm works, its parameters, and the impact the methodology has on the accuracy of the resulting data.

Who makes the policy decisions about privacy vs. accuracy?

These decisions will be made by the Census Bureau’s Data Stewardship Executive Policy Committee.

Will the Census Bureau be using differential privacy for the American Community Survey (ACS)?

Recognizing the increasing privacy threats posed by the proliferation of third-party data that can be used to reidentify individuals in official statistics and the increasingly powerful algorithms that can perform those reconstructions and reidentification, the Census Bureau has committed to modernizing its disclosure avoidance methods for all censuses and surveys on a rolling basis. The ACS will eventually be moved to differential privacy, but only after extensive consultation with ACS data users about the effects the method might have on the data’s fitness for use. The earlier this transition could happen is 2025.

What will be the impact of differential privacy be for different types of data uses?

There are countless ways to use the Census data. What gets published will be high quality for many uses, but may not be high enough for other uses. There’s not a single metric that can be optimized for. The Census Bureau is committed to providing guidance to its data users about the data products’ fitness for use for various use cases.

All webinars can be viewed at https://community.amstat.org/eps/aboutus/webinars.

Even within each of these two large umbrellas, much variation exists. One often thinks of two distinct career paths—that of the theoretical statistician and that of the applied—but it is much more nuanced. While CNSL is home for the applied statistician, CNSL embraces all the diversity that comes with what it means to be an applied statistician. Importantly, CNSL recognizes and can infuse versus the resulting accuracy published? Will there be a measure of accuracy published?

What is the optimal balance between privacy and accuracy?

Hawes explained that the tradeoff is a legal and policy decision, balancing the amount of noise infused versus the resulting accuracy. If no privacy loss is the goal, then no results could be published. A strength of differential privacy is that the privacy loss budget is built in as a parameter to precisely control this tradeoff. The higher the measure, the more you favor accuracy over privacy protection. At the time of the webinar, the Census Bureau was about a year away from producing the first differentially private data products. Several policy issues remain to be decided upon, especially with regard to the exact privacy loss budget, which quantifies that balance of privacy and accuracy. The bureau continues to evaluate their implementation of differential privacy to improve upon the accuracy and “fitness for use” of the resulting data, especially for smaller areas.

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Most recently, activities of the mentoring program were published in the winter issue of the Biopharmaceutical Report, available at https://go.ama2/39jDdB.

The goal of this program is to help members further enrich and enhance their professional experience through achieving personal and professional goals. This may occur through sharing of knowledge and experience between a professional practitioner and someone entering the profession. A constructive mentorship relationship can take many forms and may occur at any stage of one’s career, with benefits for both the mentor and the mentee.

The section provides hands-on resources (https://go.ama2/2Vu1E) for mentors and mentees to facilitate their interactions. Information related to the mentoring activities and additional resources are available at bit.ly/3gO0u.

2020–2021 Mentoring Program Are you interested in becoming a mentor to a statistician? Are you a potential mentee, or can you nominate a statistician who may be looking for a mentorship? If so, email your contact information to biopharmmentoring@gmail.com with “Biopharmaceutical Section Mentoring Program” in the subject line.

Epidemiology

The Section on Statistics in Epidemiology (SIE) grants annual young investigator awards to new researchers for the best papers in statistics in epidemiology. Among the winners, the Breslow Award further recognizes the top paper. The 2020 young investigator awards go to the following individuals:

- Jonathan Finzi, Biostatistics, National Institute of Allergy and Infectious Diseases (Breslow Award Winner)
- Xuan Tran Cai, Biostatistics, Yale University
- Matteo Bonvini, Statistics, Carnegie Mellon University
- Glen McGee, Biostatistics, Harvard University
- Peter Cohen, Operations Research, Massachusetts Institute of Technology
- Ming Tang, Biostatistics, University of Michigan

Congratulations to all of the award winners.

How Can We Help?

We want to help you share your own news with colleagues and showcase your latest successes. It is important to us that everyone knows about your research, recent awards, and promotions!

If you have any news you would like to share, email megan@amstat.org.
Statistics and Data Science Education Section Invites Mentoring Program Applicants

Nicole Dalzell

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The ASA Section on Statistics and Data Science Education is inviting both mentors and mentees to participate in its mentoring program. The goal of the program is to connect mentees with mentors across the community, providing a (free) resource for advice about teaching strategies, course development, the academic job search process, and the tenure process. Meetings are usually conducted via phone calls or video chats on a monthly basis and are personalized to the needs of each mentee/mentor pair.

Mentors can be at any stage of their career, as long as they are interested in discussing aspects of teaching and scholarship with experienced statistics and data science educators. And mentors can be statistics and data science educators at any stage of their career, as long as they are willing to share their advice. All educators in the broader statistical and data science community are welcome, including K–12 schools, AP programs, community colleges, undergraduate and graduate programs, industry, and government. Graduate students are also welcome.

A Personal Journey

I had the opportunity to participate as both a mentee and mentor in this program and found it beneficial. I joined the mentoring program as a mentee in 2016, the first year the program was offered. I was in my final year of my PhD program and seeking mentoring during my job search process. What should I expect during an on-campus interview? What could I ask about during a negotiation? I was matched with Matt Hayat, who answered these questions and more. During our phone calls, Matt was calm and supportive presence, and he helped me during the entire job search process. Our meetings took place online about once a month and concluded once I secured my current job. Even though our formal mentoring relationship has ended, Matt and I continue to keep in touch and have met in person at both JSM and USCOTS.

At the end of the mentoring program, I received a survey asking if I wanted to participate again, but this time as a mentor. Eager to pay forward what Matt provided for me, I signed up and was matched with a PhD candidate seeking advice about the job market. During this mentoring relationship, I worked to provide the same guidance and support Matt gave me.

This year, I am serving as a mentor to a fellow professor, discussing strategies for teaching statistical writing and computing, as well as course design.

Both sides of the mentoring relationship are rewarding, and I have enjoyed the chance to build relationships with others in the community.

The Process

Both mentees and mentors must complete the form at bit.ly/2K33Dmi and join the ASA Section on Statistics and Data Science Education; instructions for joining are on the form. The form will ask questions designed to help create productive pairings. The matching results are generally announced in July. Questions about the program may be sent to the 2020 committee chair of the mentoring program, Jennifer Green, at jgreen@montana.edu.
Survey Research Methods
The Survey Research Methods Section (SRMS) proceedings from the 2019 Joint Statistical Meetings in Denver are available at www.asasrms.org/Proceedings/index.html. At the bottom of the 2019 screen, you can also find 21 papers from the American Association for Public Opinion Research (AAPOR) 2019 Conference in Toronto in May 2019.


Note that some of these years are prior to the electronic proceedings available through the ASA (2009–today); the section scanned all earlier papers as a service to survey researchers.

Recently Published Articles
Stable Approximation Schemes for Optimal Filters
Dan Crisan, Alberto López-Yela, and Joaquin Miguez
On the Well-posedness of Bayesian Inverse Problems
Jonas Latz
Convergence Rates for Penalized Least Squares Estimators in PDE Constrained Regression Problems
Richard Nickl, Sara van de Geer, and Sven Wang
A Bayesian Numerical Homogenization Method for Elliptic Multiscale Inverse Problems
Assyr Abdulle and Andrea Di Blasio
Dimension Reduction for Gaussian Process Emulation: An Application to the Influence of Bathymetry on Tsunami Heights
Xiaoyu Liu and Serge Guillas
On Nonintrusive Uncertainty Quantification and Surrogate Model Construction in Particle Accelerator Modeling
Andreas Adelmann
Sequential Design with Mutual Information for Computer Experiments (MICE): Emulation of a Tsunami Model
Joakim Beck and Serge Guillas
Polynomial Chaos Expansion of Random Coefficients and the Solution of Stochastic Partial Differential Equations in the Tensor Train Format
Sergey Dolgov, Boris N. Khoromskij, Alexander Litvinenko, and Hermann G. Matthies
Transport Map Accelerated Markov Chain Monte Carlo
Matthew D. Parno and Youssef M. Marzouk
Calculation of Lagrange Multipliers in the Construction of Maximum Entropy Distributions in High Stochastic Dimension
A. Batou and C. Soize
Variance Components and Generalized Sobol’ Indices
Art B. Owen
Ensemble Transport Adaptive Importance Sampling
Colin Cotter, Simon Cotter, and Paul Russell

For more information on SIAM/ASA Journal on Uncertainty Quantification: siam.org/juq

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UNCERTAINTY QUANTIFICATION
Mathematical, statistical, algorithmic, and application advances in uncertainty quantification and related fields

Editors-in-Chief
Peter Challenore
University of Exeter
Andrew Stuart
Caltech

Published research articles presenting significant mathematical, statistical, algorithmic, and application advances in uncertainty quantification and related fields such as sensitivity analysis, model validation, model calibration, data assimilation, and code verification. The journal also solicits papers describing new ideas that could lead to significant progress in methodology for uncertainty quantification as well as review articles on particular aspects. The journal is dedicated to nurturing synergistic interactions between the mathematical, statistical, computational, and applications communities involved in uncertainty quantification and related areas.

Browse articles at apubs.siam.org/juq

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ASA leaders are ASA members who volunteer in some way, primarily as chapter or section officers or committee chairs or members. We aim to make your volunteer experience easy by providing materials you need in one convenient location.

Visit the Leader HUB on the ASA Community at https://community.amstat.org/asaleaderhub/home.

COMMITTEE MEMBER? CHAPTER OR SECTION OFFICER?

ASA leader HUB
professional opportunities

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). 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 www2.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.

New Jersey

The Mamdouha S. Bobst Center for Peace and Justice at Princeton University is looking for a senior research specialist with advanced quantitative methods skills to assist in the development of projects covering a wide range of cutting-edge social science research. The specialist will work closely with faculty and students and will be involved in data acquisition, management, analysis, and visualization as well as research design. Apply Here: http://www.Click2Apply.net/3045shudd.

Texas

2 full-time, 12-month postdoctoral fellow positions at the Department of Statistics at Rice University or at MD Anderson Cancer Center.

Requirements: Ph.D. degree in Statistics, Biostatistics, Applied Mathematics, Computer Science or a related field; extensive experience with R and Python; modeling, multivariate data, statistical learning and working with big data. Start date April 1, 2020. Applications accepted until the positions are filled – https://jobs.rice.edu/postings/23335. Rice University is an Equal Opportunity Employer with commitment to diversity at all levels and considers for employment qualified applicants without regard to race, color, religion, age, sex, sexual orientation, gender identity, national or ethnic origin, genetic information, disability, or protected veteran status.
SOCIAL CHATTER

Name a favorite math/statistics game.

Caleb King • @ckingstats
Would Monopoly count? I know it’s more of a business-oriented wheeling-and-dealing friendship-destroying kind of game, but there’s definitely elements of probability theory just below the surface. At least according to this video: youtu.be/ubQXz5RBBtU

slacey • @SeanLacey
My favorite game is “having a mathematics degree and still needs to google ‘how old am I’ every year”

Richard Forshee
Dungeons and Dragons and other role-playing games. You have lots of opportunities to try to tilt the odds in your favor, but then you have to roll the dice.

Carolina Liskey
The best one of all: Tetris

Yossi Levi
Backgammon

Zhou Lan
Gambling

Nick DeWaal
The game of Nim.

Justin Ludwig
Strat-O-Matic

Gene Geist
Craps

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